

**Dmitry N. Alekseev**

**THE POSSIBILITY OF MANAGEMENT**  
**Understanding human ability**



**Dmitry Nikolaevich Alekseev**

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*Dedicated to those women whom I loved and tortured and who loved and tortured me: without you I would not become who I am. The best that I could wish for here is an inescapable desire to improve the creative abilities for your children. Forgive me and ... thanks!*

## Content

<b>FOREWORD .....</b>	<b>7</b>
<b>WHAT HUMAN MANAGES .....</b>	<b>12</b>
HUMAN BODY .....	14
SOCIETY .....	15
MANAGEMENT OF THE NON-HUMAN ENVIRONMENT .....	16
METAMANAGEMENT .....	18
ON THE LANGUAGES OF MONEY AND THE LAW .....	20
ABOUT DIFFERENT METAPHYSICS .....	22
HOW DO THEY TALK ABOUT GOVERNANCE TODAY? .....	23
<b>ABOUT THE "ORGANIZED PERSON" AS THE HISTORICAL BASIS OF THE PERSON-DESIGNER .....</b>	<b>26</b>
ADDITIONAL CREATIVE ASPECT OF AN ORGANIZED PERSON.....	26
ABOUT PROTESTANT OVERORGANIZATION.....	32
TO THE NATURAL IDEA OF THE HUMAN-LOGOS .....	34
ABOUT NEOECONOMICS AS A SOCIAL SCIENCE IN THE WEBERIAN SENSE AND NOT ONLY .....	41
<b>DESIGN AND NEOECONOMICS: A COMPARISON OF GRIGORIEV AND PAPANEK'S VIEWS ON PROJECT ACTIVITIES</b>	
<b>AS CREATIVE .....</b>	<b>48</b>
HOLISTIC SOCIAL SCIENCE: IS IT NOT URBANISTICS?.....	49
UNITY OF VALUE ACCENTS OF ECONOMIC AND NON-ECONOMIC PROJECT APPROACHES .....	51
SUBSTANTIAL REFINEMENT OF CREATIVE ACTIVITY FROM THE DESIGN POSITION.....	54
SUBSTANTIAL REFINEMENT OF PROXIMITY TO THE CONSUMER FROM THE DESIGN POSITION.....	55
SCIENTIFIC AND PROFESSIONAL STATUS OF PROJECT ACTIVITIES .....	56
THE DESIGNER IN THE ECONOMIC PROCESS IN THE ASPECT OF PTM.....	61
MONEY: LANGUAGE AND TECHNOLOGY .....	63
MONEY AS A DESIGN OF COMMUNICATION ENVIRONMENT .....	66
MONEY IN THE ASPECT OF THE AGGREGATE REPRESENTATION OF NEOECONOMICS ABOUT THE HISTORY OF THEIR ORIGIN .....	71
SEPARATE SPECULATION ABOUT THE ALTERNATIVE SEMANTICS OF MONETARY TECHNOLOGY.....	74
THE GRAPH OF THE ECONOMIC SYSTEM.....	82
SPECULATIVE HYPOTHESIS ABOUT MONEY IN THE SENSE OF TIME AND SPACE .....	88
<b>THE HISTORICAL AND ECONOMIC NATURE OF TECHNICAL AND TECHNOLOGICAL .....</b>	<b>90</b>
ECONOMIC AND NON-ECONOMIC VIEWS ON TECHNOLOGY AND TECHNOLOGY .....	90
HISTORY OF EUROPEAN TECHNOLOGY AND NEOECONOMICS: TO CLARIFY THE ROOTS OF THE FUNDAMENTAL AND COMBINATORIAL ECONOMIES OF KNOWLEDGE .....	96
<b>INVECTIVA VS DISSERTATIO, OR A SERIES OF PROSPECTUSES IN THE POST-CRISIS SCIENCE.....</b>	<b>108</b>
A SMALL INTRODUCTION TO THE ISSUE .....	108
LEVEL OF CONSIDERATION .....	111
AMOUNT OF SOURCES.....	112
THE CRISIS OF THE PARADIGM OF SCIENTIFIC AND TECHNOLOGICAL PROGRESS (NTP).....	113
EMASCULATION OF CREATIVITY .....	114
FEAR OF FORECASTS.....	117
RELIGIOUS CHARACTER OF SCIENCE .....	118
WELL, HOW IS IT ?! .....	120
IN CONTINUATION OF THE THEME OF PROTESTANTISM IN SCIENCE .....	122
<b>SCIENTIFIC AND METHODOLOGICAL ASPECT OF NEOECONOMICS: AMONG SCHOOLS AND DIRECTIONS .....</b>	<b>124</b>
NEOECONOMICS AS A SCIENCE SCHOOL .....	124

THREE-PLACE ATTITUDE OF MONEY, KNOWLEDGE AND PTM IS AN IMPORTANT MOMENT OF NEOECONOMICS AS A RESEARCH PROGRAM .....	133
THE QUESTION OF APPROACHES TO SCIENCE IN NEOECONOMICS IN THE ASPECT OF THE CONCEPT OF THE MODEL .....	136
ON THE QUESTION OF THE SEMIOTIC NATURE OF MONEY.....	145
SEMANTICS OF MONEY IN TERMS OF THE CONCEPT OF MODEL.....	150
MODEL VS RECURSION: THE QUESTION OF THE SCIENTIFIC METHOD.....	155
A.V.BUZGALIN & A.I.KOLGANOV VS O.V.GRIGORIEV: WHO IS WHOM? .....	163
OCCAM'S RAZOR FOR NEUROECONOMICS, OR A VIVID EXAMPLE OF THE EXHAUSTION OF SCIENCE FROM THE FINGER .....	170
GRIGORIEV CUTS A WINDOW FROM THE ECONOMY INTO URBANISTICS .....	172
<b>URBOENVIRONMENT AS AN EMERGING SPACE OF LIFE AND FORMS OF ACTIVITY IN IT.....</b>	<b>176</b>
HOUSING AND DEMOCRACY.....	176
HYPOTHESIS ABOUT THE CLUSTER SENSE OF POSTCAPITALISTIC URBAN FINANCE .....	179
CAPITALISM AS A CHRONIC DISEASE.....	181
DEVELOPED LEASING AND LEASING MARKETS AS POSSIBLE ASSETS OF A POSTCAPITALIST NON-GROWTH ECONOMY.....	182
LOCAL FINANCE: A SMALL CLARIFICATION OF CONCEPTS .....	188
OUTSOURCED CHEBOL.....	190
HYPOTHESIS ABOUT REAL SECTOR TRENDS IN THE IT INDUSTRY, OR CROWDLEDGE AS AN OPPORTUNITY .....	193
<b>SOME SPECULATIONS ABOUT THE POSSIBILITY OF TRANSHISTORICAL CONTINUITY: A COMPARISON OF THE VIEWS OF GRIGORIEV AND NEFEDOV .....</b>	<b>196</b>
WHERE DOES "TRANSHISTORIC" COME FROM? .....	196
QUESTION ABOUT THE ANSWER: NEFEDOV'S HISTORY AND GRIGORIEV'S NEOECONOMICS.....	201
NOTE 1. THREE CONCLUSIONS OF NEFEDOV'S BOOK ON THE EAST .....	212
NOTE 2. GRIGORIEV'S VIEWS ON MALTHUSIANISM FROM SHANIN'S LECTURES.....	213
NEOECONOMICS AND RUSSIA IN OCTOBER: WHAT TO DO FOR THE "NEOECONOMISTS"? .....	215
TO THE QUESTION OF THE SUBSTANTIVELY LOGICAL FOUNDATIONS OF STATE CONSTITUTIONS AS BASIC SOCIAL INSTRUCTIONS.....	221
VALUE BASES.....	224
<b>SITUATIONAL CENTERS AND NON-CENTERED CONTROL SYSTEMS IN THE HISTORICAL CONTEXT OF THE DEVELOPMENT OF CYBERNETICS OF "VIABLE SYSTEMS" .....</b>	<b>227</b>
A FEW WORDS ABOUT THE RELATIONSHIP BETWEEN PROJECT AND FORECAST ACTIVITIES.....	227
THE NOTION OF THE SITUATION CENTER (SC), WIDESPREAD AT THE BEGINNING OF THE 21ST CENTURY.....	232
EFFECTIVENESS OF MODERN SCs.....	236
A SUMMARY OF CURRENT VIEWS ON THE SITUATION CENTER.....	243
THE HISTORY OF THE EMERGENCE AND INTRODUCTION OF SITUATIONAL CENTERS.....	244
THE IDEAS OF S. BEER ON HIS BOOK "THE BRAIN OF A FIRM".....	250
CLOUD SITUATION CENTER OR NON-CENTERED CONTROL SYSTEM AS AN OPPORTUNITY .....	253
PROBLEMS ASSOCIATED WITH THE DEVELOPMENT AND IMPLEMENTATION OF THE "CONTROL CLOUD" .....	255
METHODOLOGICAL REQUIREMENTS FOR THE DEVELOPMENT OF COMPUTER SYSTEMS WORKING IN THE LOGIC OF DIALOGUE (AS AN APPLICATION).....	264
<b>VERY LITTLE ABOUT MEDICINE .....</b>	<b>267</b>
ON THE ABILITY TO REASON ON PUBLIC TOPICS OF OTHER REPRESENTATIVES OF THE MEDICAL PROFESSION .....	268
ON THE ACTIVITY PROSPECTS OF MEDICINE .....	269
<b>A FEW WORDS ABOUT R.B.FULLER AND OTHER GREATS IN THE CONTEXT OF THE IDEAS OF THE MECHANICS OF TENSEGRITY .....</b>	<b>273</b>
FULLER AND OTHERS.....	279
MY OWN CONSIDERATIONS IN THE CONTEXT OF FULLER'S IDEAS .....	290
COMMENTARY ON THE BOOK "GRUNCH OF GIANTS" AS A WILL OF THE FULLER TO HUMANITY .....	292

<b>CONCLUSION .....</b>	<b>297</b>
<b>LIST OF REFERENCES .....</b>	<b>300</b>
<b>AUTHOR INDEX .....</b>	<b>301</b>
<b>ABOUT THE AUTHOR .....</b>	<b>311</b>

*If "Soviet Communism" took its own downfall,  
then "Western capitalism" has not done so yet.*

*Everything that irritates the appetite for particulars becomes not only evil,  
but distracts from issues that really should be discussed.*

*Stafford Beer*

*The profession dissipates thoughts; this is her greatest blessing.  
For it is a cover, for which it is permissible to retreat whenever,  
When a person is attacked by doubts and worries of a general nature.*

*Friedrich Nietzsche*

## **Foreword**

How much should I say or write in order to share something important with the world? Do I need to explain something for a long time, or just to start the world in a few words, in some set of commandments, in winged aphorisms? And how long does it take to spend it? And should this presentation be smooth and uniform, or should it be a tangle of intersecting, and sometimes open and unspoken, narratives? Well, if this openness is marked and framed in the form of questions – since, as you know, correctly put the question – then half answer it. To determine the predetermined order of what I chose as the material for this book was somewhat difficult, but not quite: every part of what I would like to tell here has an independent significance for me. The order is rather determined by the content of the beginnings and ends of the corresponding sections, but not at all the fact that another order of presentation is impossible. The texts of these sections are separate narratives – unconditionally intersecting with one another and forming in a whole system, meaningfully open on a variety of topics, for narration is an open thing. At the same time, having a set of materials that were very interrelated but initially not created as a whole, I tried to observe the completeness of the text.

What is the book about? Compressing the answer to this question to a laconic form must invariably lead to a heading. Perhaps there was an option to write a book, unfolding a narrative from it; but the fact of the matter is that its fragments arose as independent integrity and objects of my interest before they were integrated with each other. Therefore, the difficulty of the way back – creating a title for an already finished book – is that the whole world of their own ideas,

developed or planned for a long time, and, moreover, related in some sequence, compressed-encapsulated to a very concise phrase. At the time of writing these lines, I believe that it is consistent with the next sweep.

In the title I did not say anything specifically about the object, about the subject of management, nor about the management science, nor about science as such, taken in the aspect of its narratively expressed history; for science (at least, what most people understand by science at the time of writing this book) is valuable just the ability to control: society and the subject of study, as well as own and other people's views on the world (in the latter case, science is able to act as a means of manipulation, and does it very successfully). "Management", "science" and many other words are connotatively heavily loaded and largely discredited. I could not, like Dmitry Mendeleev's great article on the ether, call the book and somehow "Trying to Understand ...": I have already made an attempt, and what is stated here is its result in a narrative form. If we are talking about an attempt, it is an attempt to discover something new at the junctions and combinations of that versatile, relatively spot-blinking contours of which the *deja vu* of some "well-forgotten old" constantly appears. So I'm talking about the possibilities. Contrary to the popular proverb, according to which "history does not tolerate a subjunctive mood," history (both as a science and as a standard of scientific and epistemic format) is adopted because of its subjunctivity and modality: the ability to see both alternative ways of its course, both and the conditions for the invariance of reproducible paths. These are the ways, I, in fact, are looking for; Some of them I found in the interrelation of different concepts, some only touched. Therefore, when talking about the path of detailed conversations, beginning the conversation about the path-method, I inevitably come across the problem of talking about the usefulness and harm of scientificity for life.

Of course, the heading is openly "hidden" and a reference to Kant's "as possible ...?"; and, of course, modality itself is a control factor applied to itself.

To date, one can observe the great confusion in the history of the general science of the forms of organization of natural forces, and especially in the history of management science (at least in Russia): for example, the hefty book of one doctor of philosophical sciences is called "Synergetics", and is full of names Haken, Prigogine, Bertalanffy and many other authors of the post-non-classical

direction, but there is not a single reference to Fuller, who invented the term "synergetics" himself, and introduced it, as there is no this surname and in the list of names for "F"; this author in the books with the names "Foundations of Synergetics" and "Synergetic paradigm" sets out extensive doctoral awareness / in empirical ideas (actively discussed in different ways by many interested), but does not clarify the question of what such "synergetics" and where did this word come from. Another doctor of sciences in one of his articles published in a philosophical collection writes that synergetics-de as a concept originated in the development of the ideas of science on the management of cybernetics, beginning in the second half of the 20th century. And many believe in these things among those who have heard of synergetics at least something more than just this word itself.

There is one more difficulty connected with the fact that the largest number of books about this or that management, pressing prestige or worthy to be authoritative, are published in English, in which, unlike the great and mighty Russian, there is a whole heap of terms that correspond to this concept: "manage", "govern", "ruling", "cybernetics", "directorate", "control". And, by the way, "economy" in its third meaning of translation – "organization", "structure", "structure", "device", "system"; in a literal translation – "domostroy." To the reader, I suggest myself to feel the whole connotative color of the word "domostroy", since it is this color and the range of feelings that arise together with allusions to Ostrovsky's writings that reflect the most correct definitions and references, in view of which one of the most breakthrough and systemic at the beginning of the twentieth century economic concepts (again, at the time of writing these lines, and for many subsequent moments, I suspect, too). In the Russian language here we have the word "control" (Russian-speaking English "control" – not counting).

Understanding the subject of management (especially as regards its applied part) and the role of the individual in this reality has become a fundamental, abstract and impersonal scientific idea that has lost its roots. Why do they do this science at all? Moreover, according to a strange "coincidence", the further this science develops (especially in the field of "computer science"), the more the world

becomes uncontrollable<sup>1</sup>. It seems that it's time to write a history of management science, and do it with some fresh positions and approaches, beyond what is dictated to us in the mainstream on this account. But this means that we will have to revise the very scientific nature (for its meaning, in the final analysis, is precisely in organization and management); and it means that it will be necessary to talk a lot about the economy, since it is within its framework that the lion's share of applied and theoretical decisions has been focused for a long time in terms of what management activities of a person can be directed at. This is especially important when the expression "the economic crisis" becomes a common misery, while other great ones state fresh ideas about the fact that the systemic anomaly is not just recession and depression, but precisely that growth. Hence the question arises of the role of man in the management process, of the control of these things.

But to allow such controllability means to raise the question of the person's control over the norms, standards and concepts of his life, and hence the ability to look at them from the side and, as it were, from above. What do you need to look at and what to review? What should be the space-time scale here in order to determine the horizon of the factology used? Is it possible to question things that are considered or seem to be unshakable, especially if they have the status of "achievements of the mind"? This is possible only in conditions of demanding life, but not abstract speculation.

And of course, thanks. To say that I am grateful to Oleg Vadimovich Grigoriev, under consideration and (I believe, constructive) criticism of the revolutionary ideas of which this book is largely built – means nothing to say. I find him to be an excellent teacher of the economy, capable of explaining such a complex science in a sinuous way, revealing genuinely her multi-hundred-year problems, and the great scientist, whose horizon of erudition, the scale of consciousness and discoveries extend far beyond his professional subject. At the time I'm writing these lines, it's still hard to find an equally vivid copy of a real scientist, who also builds a serious theory, realistic and radically changing the world view. I am grateful to his fine team whose attention to my humble person I owe to being involved in an incredibly fascinating creative process on the basis of a very

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<sup>1</sup> I remember a quote from a post-Soviet comedy film: "In those places people did not know the criminal code, so they lived honestly".

informative and very intelligent discussion on very important issues within which the creativity itself was reflected.

Special thanks to Vadim Gennadievich Novikov, whose friendship and word of honor I highly value, for a long time helping me in my work and life, which once provided me with an excellent tool for organizing work with texts and making it possible to share them with others through publications.

I am grateful to Nikolai Vyacheslavovich Nilov, my publisher, who drew attention to my work and encouraged me to compile this book, which is, first of all, an attempt to turn the collection into a coherent text. Acquaintance with this person became one of the most amazing events in my life for a number of reasons.

And, of course, I am grateful to those women whom I loved and tortured and who loved and tortured me: without you I would not become who I am. Forgive me and ... thanks!

## What human manages

And in fact – than if you are distracted from discrepancies in the direction of general ideas?

Management wins death. Anyone who learns to govern higher orders and higher activities will be overcome by death in the highest sense. Therefore, all management begins with self-government, with self-consistency. For death is the end of control, the end of the cybernetic process. That is why the management is linked to the intention, with direction, with a vision, with a look into the future, with script.

The fact that most people at the turn of the 20th and 21st centuries know and think about science are knowledge and thinking about the science of the "era of scientific and technological progress" (Nauchno-Technicheskiy Progress – NTP) that arose with the beginning of the era of capitalism in conditions and forms that arose during the "long XVI century ", in brief and in general described further in the section "History of European technology and neoeconomics ". As a kind of knowledge aimed at a "sober and unbiased" study of the nature of any things, it nevertheless served the interests of capitalist society, as well as institutions of public administration for them – whether it was a society of the countries of the North Atlantic Alliance or Council of Mutual Economic Assistance. Simultaneously with the emergence of the new European science, economics emerged as part of this scientific character, on the one hand, and how the science of the management of society itself, parallel to this scientific phenomenon as a social phenomenon in general (literally translated and broad, macrosocial, meaning "housebuilding"), on the other. From this, the other, the economy as a management science appears in its ancient, ancient understanding. During the crisis of the capitalist system of the era of the industrial revolution, beginning in the 1960s and 1970s, and up to the turn of the 20th and 21st centuries and further on, the institutional destruction of the scientific and technological discipline begins, serving the capitalist world system, based on the principles of: production – reproduction – expanded reproduction; commodity and cash multipliers working on the principles of P-M-P and M-P-M' (P – product, M – money); global expansion of sales markets. These principles, however dramatic and cruel they may be, at one time allowed to overcome the "gloominess" of economic science and to wrest mankind from the cycle of demographic cycles.

Today, as many people note, humanity stands at a crossroads: either return to the moneyless feudal system of management with a series of births and extinctions, or break away into some other, fundamentally new state, the outlines of which few today are able to identify with firm confidence, limits of known forms and models.

Almost simultaneously with the peak of the development of scientific and technological progress and the industrial revolution, the science of management – cybernetics – has become an independent discipline, perceived by the scientific establishment and the broader scientific community as a "cognitive generic", associated with the name of Norbert Wiener and dated 1948. The history of science also knows other general concepts of the management and organization of systems of the metaphysical level, one way or another associated with Wiener's cybernetics, these are declared: in the period 1913-1922. – the "tectology" of Alexander Bogdanov, in 1927 – the "synergetics" of Buckminster Fuller (and in the same year of 1948 – the mechanics of the "Tensegrity" Fuller-Snelson, which became the material embodiment of the ideas of synergetics); tectological ideas seem to have been a source of inspiration for the participants in the successful Krasnoyarsk experiment on creating a closed biosphere in the 1970s, while the ideas of synergetics, becoming the common shadow background of a significant number of scientific ideas throughout the world in the 1960s and 1970s. (including "second wave cybernetics", or "cybernetics of viable systems" Stafford Beer), in the period of global crisis processes of the twentieth century, receded into the background and only recently began to denote their timid manifestation in the search for answers to global challenges. It should be noted that all these paradigmatic concepts of management science, being presented to the general mass of the well-read public under the name of "cybernetics," thanks to the ideas of system dynamics proposed by Jay Forrester, have invaded the area of urban studies, which today is hardly the only sober and justified (although it has not been fully addressed by broad scientific circles) claims to the status of an integral science of society – just as the whole science of the human "psychose" for today is a system of medical knowledge with all the complexity of research and development, engineering systems, buildings, equipment, tools, infocommunication provision, logistics, providing all this production and money costs for all this – while the medicine itself is not science, but a high-tech sphere

of economic activity with a high multiplicative effect – on the one hand, and the so-called "closed market" – on the other.

This short historical excursion marks the question of what humanity did manage to manage for many years of its evolution (in a well-known historical retrospective). The question is connected with it, that there are the main spheres of human management. First of all, the idea of human control, no matter how and whenever it is conceived (within the framework of the above concepts or somehow else) is objectified in three areas:

1. in fact, a living and reproducing human body, or the aforementioned "psychosome", or the human body (including its life cycle);
2. society and social processes, implemented on a set of consciously or unconsciously communicating, competing or performing joint activities, living bodies;
3. "natural climatic" and "landscape-geographical" human habitat, that is, the system-accessible nature of the planet Earth at the level of the biosphere, atmosphere and lithosphere.

To what extent does man manage these areas?

### **Human body**

The management of the human body at the turn of the century is most advanced and developed, but not absolutely, and represents a predominant area of medical activity, within which medical knowledge (anatomy, histology, pathology, pharmacology, applied and specialized subjects) is complementary, but not competitive ). Managing processes in the human body are differentiated by purpose (treatment of diseases, sports medicine, compensation of overloads), methods, coverage of time periods, the technologies used (from the most ancient to the ultra-modern) and other reasons. At the same time, today's medical management of the body (or rather, psychosomal, because it also includes the body of psychological and psychiatric practices, including group ones) is based on the presumption of exclusion of social factors of the body's existence with a general recognition of their significance for the development of this. In other words, a doctor of non-traditional, or classical, or NTP-medicine, is not a specialist in social sciences, because of the division of managerial and scientific work precisely at the level of management objects. This topic could be developed and

tracked how such a division has developed, and how doctors have tried, to some extent successfully, to treat "disease of society", but it is here that it makes no sense to dwell on this. It is important to point out the fact that the factor of social patterns leading to at least some medical and statistical significance pathologies has always been beyond the consideration of specific anamnesis: for anamnesis has always been significant, and still remains so, namely "lifestyle ", But not social status, income level or type of employment. Meanwhile, the tasks of medical management, even in the case of modern ambiguous avant-garde concepts like "disease management" or "body augmentation", the starting point and the ultimate goal have the tasks of social management – at least in the economic sense.

To the management of man by himself and his body should also be attributed all sorts of meditative, ascetic and spiritual practices associated with the development of observation abilities, control of one's own physiology, communicative and suggestive abilities. However, these things lie at the junction of the first and second of the marked areas, and when you add the third of them, you bring the person to the meta control level, which is discussed below.

## **Society**

Historically, the issues and principles of the management of society have been worked out to a greater extent than the management of processes in the human body processes. Also, under human management of society, for many centuries management itself was understood as such, since it was believed that the management of the orders of the human body and the natural environment is the prerogative of divine instances. And the management of society was thought of and still is thought by many at a very deep level, as management in accordance with some higher, divine or providential principles and commandments.

During the period of the science of the NTP period, the management of social processes represents a predominant area of knowledge and, in part, activity, the so-called social sciences (economics, ethics, government, political science, sociology, demography and some others) artificially separated in scientific work (reason which is partly indicated in the same, mentioned, section on European technology), hampered because of this in solving complex social problems and is still arguing about the extent to which the society manifests (which is very similar

to the ancient satirical dispute of the grief-doctors about "whether the patient is more likely to be sick than dead, or vice versa"). Of course, the solution of public problems often hangs in the air, leaving society itself at the mercy of things in the spirit of Murphy-Parkinson-Peter.

With the emergence of cybernetics as such, and "computer science" as the applied direction of its technological support, the problem of testing the hypothesis about the possibility of using the appropriate tools for managing social processes-above all, the economy (especially within the framework of the ideas of economic cybernetics) expressed in the projects: the failed Soviet OGAS project; promising, but ruined, Chilean Cybersyn, as well as the American wave of IT technologies that brought the credit and banking sector of the financial sector to a new level of development and is widely known as the "computer revolution" (in fact, as part of the latest "computer science" experience and got its development).

Meanwhile, whichever network of streams and processing of signals humanity builds, it still knows two main ways of managing social processes: through money and through the law. The understanding of this difference can be clarified through two approaches to creating a metalanguage, and this will be discussed later.

### **Management of the non-human environment**

The peculiarity of human interaction with this region is that the latter, at the level of deep paradigms and even archetypes of consciousness, is the object of precisely that of management to the least extent of all three, and is considered, as a result of historically prevailing cognitive and activity orientations, as a source so-called renewable and non-renewable resources for very specific practices of managing social processes, conceived by many as immutable and unique. Management within the biotic environment is conceived on a fairly simple principle of food chains.

Until the era of capitalism, due to the high localization of the population exposed to demographic cycles, this was not relevant, and in the period of its development the issue of shortage of resources was solved primarily by expansion; At the same time, the development of the world economic system in the period after the Industrial Revolution went along the path of technological development, and therefore the natural systemic nature for a long time if it was the subject of

fundamental science research, then certainly not with the aim of directly involving in economic circulation (although, of course, Observations of mutual devouring of animals and association on this account with human society have taken place since antiquity). At the same time, civilizations with a developed agrarian system demonstrate the possibility of partial control of elements of the biosphere environment, based on very careful observations. They were hardly scientific in the sense of NTP, but some historical reconstructions suggest that the knowledge of antiquity in this area was very deep, if not phenomenal.

Today, the management of climatic and biospheric processes is a barely emerging subject of knowledge, despite impressive experiments in this area: the successful Soviet BIOS-3 of 1972 and the unsuccessful but planned to repeat American "Biosphere-2" of the 1990s. At the level of mass consciousness, this is today the predominant subject of various conspiracy theories about secretly developed "climatic weapons." At all, not excluding that such is created or created earlier, within the framework of this consideration this issue is not only not the main theme, but not even the most interesting. Much more interesting is the comparative fact that, as experiments with the management of the biosphere and the creation of its closed food cycles involving human beings (BIOS), as well as the experiments on the management of the economic activity of the country (Cybersyn), showed the greatest success in those cases when the scale (or, or rather, area) of the territory where the experiment was conducted was minimal. It is important that this principle of "starting small" is true in the general case, why would a new person as a separate person, or a person as a group of persons, proceed – to learn how to play a musical instrument or to create a simple and rude design; it is noteworthy that he acts in the experience of management. As far as I can tell, a similar comparison was not made earlier in the history of science.

Since mankind lives on the planet Earth, we are talking about the living environment of man – the biosphere (most of the renewable resources are related to it), as well as those natural resources that are considered to be considered as extrabiospheric "minerals" (which make up most of the non-renewable resources) – which is the domain of predominantly knowledge, but not proper management, economics, economic geography, biology, ecology, geology, climatology and a number of other disciplines – while monitoring and prognostic The analysis of some natural processes is a non-trivial task that requires

developed methodology and computational capacities (for example, control of cyclonic activity).

That is, the habitat traditionally serves a human source of materials for the construction of anything: own body, some artifacts (forms) or the production of materials, but a deeper processing (in terms of neoeconomics – elements of the subject-technological set), but not that system, the possibility of control of which by means of small influences can be developed towards more complex forms (or even launch the process of self-development in this direction).

The control of the elements and dynamics of the Solar System and other entities of astronomical orders is not considered here because humanity is just beginning to enter this level of interaction with the environment, that is, this part of universal reality has not yet become sufficient for humanity, even in spite of certain successes in the field of space technology and the striking practical insights of individual geniuses. In addition, the prospects for such an exit are very vague – at least in the current difficult global socio-economic and political realities.

### **Metamanagement**

In addition to the three identified, there is another area that meta-management is logical: it unites the study and implementation of control interactions of all the main areas among themselves, is described directly in terms of general management concepts and is necessary for the development of organization and management in each of them. By and large, there is a logical conclusion that to date there are no significant applied solutions in the field of such meta management, primarily because of the separation of the designated spheres, apparently from the ancient university division of faculties into the philosophical, medical, legal and theological. Occurring from these and even deeper antiquities of science were the sciences of objects. Subsequently, in the period of STP – the sciences about objects for the purpose of their use, where the corpus of applied knowledge originated. To date, the task of the sciences, taking into account all that has been said, is not the absolute or relative knowledge of "scientific truth", and not Michurin's "taking away of favors from nature without expecting them," but the process of governing the regions, concerning which the interest and the possibility of such a process are determined, assuming the receipt of resources,

natural favors and scientific truths as not the main tasks, but significant private effects. This is why it is important to understand the general, metaphysical principles of the relationship between controlled systems and things, and therefore for such an interdisciplinary correspondence, it is important to operate in the logic of communicative states and dialog model structures (of the type  $\langle \Gamma U, \Gamma I \rangle$ , which is discussed in the corresponding sections below).

Meanwhile, the fact that for each of the regions is a random phenomenon can be a consequence of a clear causation, if we consider the processes at such an intermediate level.

Also with the concept of meta control is closely linked one very delicate, for rational NTP science concept, which, nevertheless, is at the forefront of understanding its own foundations: the concept of the supra-rational. It must immediately be separated from the concepts of the irrational and the mystical, although the latter is most likely nothing other than the sphere of practice of understanding the supernatural within the limits of intuition, and therefore, little controlled and subject to transition to unproductive states.

On the other hand, both the meta-management and the notion of the supra-rational are associated with the notion of a metalanguage – if it is a question of it, one should assume such things as "methodological tongue-tie" and "syntactic of deletions", as well as all kinds of corrections for communicative failures, inevitably arise when creating a new language.

The supratational one needs to be clarified for a competent conversation about the accidental, conceivable as systematically arranged, that is, as a very delicate, ambiguous, sensitive and slippery topic for NTP science "strange coincidences". In this case, it will inevitably have to demarcate from the elements of the medieval consciousness that sees symbols in everything, or draw parallels with this consciousness, seeking in the ancient experience (although how to measure the antiquity itself?), rational grains.

So, Grigoriev speaks about the need to create a new language for a new social science, but should this language go down to the level of the objective? Rational narratives on the supra-rational that take place within the framework of scientific and technological progress can be described as Kant's transcendentalism, Defoe's

providentialism, Gödel's meta-theory, the Ashby cybernetic principle, the historical and economic question of the emergence of Grigoriev's capitalism.

Also worth mentioning are two concepts of the metalanguage – Boolean and Gödel: money can be considered as a metalanguage, as well as semantic and social technology of the Boolean type, the law of the Gödel type. Potentially understood potentiation of meta-levels can lead to the creation of social hierarchies with the following irrational perversions.

Further, following the thesis that the Universe is not a form (structure) and not a system, but a scenario, in the same meta-corrective context, I see it expedient to consider the following:

- supratonal as self-organization of meta control in dynamic systems and processes of a certain level of complexity;
- randomness as a meta-level of being;
- supratonal – as the becoming of being being;
- an interactive poly-versal model – as a basis for explaining supratonal effects;
- the complementarity of the meta-lingual realities of the Boolean and Gödelian types: here, the application of the Boolean meta-language of money as Gödelian, but an extra-hierarchical, linguistic tool, is seen as an application; the search for such an instrument may be a cybernetic search for a world alternative to trade and finance, perhaps an alternative and more viable form of the trading world, and perhaps even more human.

### **On the languages of money and the law**

In the case of money, the simplicity of the mimetic convention beats the simplicity of the mimetic convention; in the case of law, the complexity of specialized explanatory casuistry beats another explanatory casuistry, in the eternal contestation of the right to be a metalanguage. The replacement of the metalanguage of money by the metalanguage of law (and vice versa) thus creates the effect of "novelty of the forgotten" and "righteous anger" of the dissenters.

The language of science refers to the language of law (although it is sanctioned by the language of money and correlated with the abstractions of the metaphysical Absolute), because science deals with the laws of nature, but not with the

acceptor-mimetic perception of the nature of the scientific community – the latter is not conceivable in NTP science, there is still a weak form: this is nothing but hypothetical thinking of the world – an important element of sophisticated falsificationism, which until now has not been fully understood by a part of the scientific community even during the crisis of scientific standards.

At the same time, it is acceptor-mimetic behavior<sup>2</sup> in terms of cognitive attitudes that in many ways is the cornerstone of the sociology of mass education (including higher education) and mass scientific activity. Actually, the creation of a scientific language (the creation of "scientific laws" of narrative-empirical nature) is actually the activity of scientific creativity; whereas all the rest concerning mass scientific activity in the framework of operating by ready-made narratives by those who do not generate them but who is overshadowed by scientific authority can well be considered "scientific trade" – it is in it that the mechanism of scientific reduction, institutionalized in the presumption of scientific criteria, is born.

A scientist, discovering / creating a scientific law, and a scientist following the scientific law are different scientists. Creating a scientific routine is not a trader from science; he can not open such a law if he acts in a criterion-reductionist presumption. Law is the subject of discovery, and such, as was shown earlier, there is a completely different presumption. Nevertheless, the scientific law in the mass consciousness (including the scientific one) is firmly associated with the notion of reduction.

In this sense, being understood outside the criteria, axioms and reductions, the "logic of discovery" can be understood through a transition in the state space, or a jump into another "possible world" (description of states). Such a transition is interesting in that it is a manifestation of the organized dynamics of a system alternative to cyclic (since in this case we are talking about the system of scientific cognition, how the cognitive phenomenon of insight realized at the level of the psychophysiology of the individual or even of the scientific community can be interpreted as a phase transition). It is hardly necessary to interpret unequivocally

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<sup>2</sup> In the sense of Orleans and Agliet, only these French, as financiers, talked about ways of accepting and distributing money, including in this consideration the semiotic aspect. I also consider this aspect the starting point of consideration of both money and other artificial and specialized languages, to which, of course, there is also the language of science that creates within its own esotericism and that works ultimately to solve the same financial problems.

as a phase transition any "random pattern", since the latter is a universal phenomenon of a special order, although such a transition can be the basis of a "random law" in one form or another. The mastering of these things, beginning with an understanding of their nature, leads to the mastery of management relations, where the meta level is an extra hierarchical, peer-to-peer one – that in the applied plan corresponds to the orders of the "logic of dialogue", interaction with the "other" and "diverse".

### **About different metaphysics**

Oleg Grigoriev denies the "metaphysical science", speaking of her inability to solve problems, and therefore also building around him a scientific bureaucracy. For the same reason, he denies transcendentalism, saying that within the framework of the latter, the same vicious administrative hierarchy is justified, and calling at the same time to Nietzscheanism, "brought to the end" (which, incidentally, many simply had recovered). Meanwhile, in the period of the developed scientific bureaucracy, the "metaphysical sciences" were not at all metaphysical in the true sense of the word – the positivist and scientific scientific religion was based on a sharp denial of metaphysics as such – in the twentieth century, R.B. , being away from positivism, and with a very solid development of fresh applied solutions based on a metaphysical approach. And although he often referred to the achievements of positive science, he was very far from the hierarchy of scientific bureaucracies – not only because he was a famous nonconformist, but also because he built his system of knowledge about the world on completely out-hierarchical bases of the synergetic idea of the structure of the universe , excluding the managerial hierarchy, but presupposing recursion as a universal principle of inter-scale universal resemblance and connectedness. Fuller's synergetics turned out to be very applicable for explaining the management processes as the activity integral processes in living systems and organisms, and also in the environment of the external world, which constitutes an extrahuman environment. However, the applicability of the fundamental ideas of synergetics for the management of society dared to apply a few – the most striking example of such an application here will be the icosahedron of Stafford Beer with his principle of "team integrity". Being a magnificent social theory of the present, based on a communicative premise, neoeconomics, alas, does not

consider its connection with Fuller's geometric methodology, in which deuce and interaction are proclaimed the true unity of the universe.

In fairness, it should be said that, in part, graphical graphical and click-analytic interpretations of social networks built around the right figures and structures of distant interaction, as well as certain types of hierarchies (managerial or professional) can also be considered through fuller's concepts; However, by and large, the attempts of structural-geometric and social-network thinking are developing today more in manipulative technological paradigms weaponry, rather than omni-life-saving livingry.

Be that as it may, the principles of project management of the world of object-property forms of the human environment, and the principles of social design, must still be connected within the framework of a single concept of presence-man-in-the-world, since, ultimately, they are based on one and the same universal principles can not be contradictory to one another, unlike the perverse quasi-metaphysics of modern physical theories, in which the most metaphysical speculation is replaced by cumbersome mathematism without solutions, decades of ineffective sos ykovat own paradigms. Therefore, the question of, so to speak, "social geometry" in principle should and can be put, and "social design" – to play an "alchemical wedding" with "integrated design" (which is discussed later in the section where approaches are compared to project activities of Grigoriev and Papanek).

### **How do they talk about governance today?**

Perhaps the most important problem of the current time for Russia and for the whole world is the problem of management, and all other problems on it, one way or another, become isolated. The requirement of greater complexity of the manager relative to the managed one leads either to the reduction of the second from the side of the first (which is already quite noticeable in the form of all sorts of archaizations) or to a change in the system to an auto-poetic state when the control and controllable form a single whole; which, in its turn, assumes in the present conditions that the area of the origin of such an auto-poise must invariably be a region of controlled, as more complex, because the manager who is actually closed to himself and to his own needs will be devastated by the controlled (and already does).

To this we should add that the earliest and most accurate predictions of economic crises – both current (the 2012 problem), which is not only talked about by the lazy, but also by the future ones (problem 2030-2050), about which only a few are at risk, only with the analysis of management tendencies, but also directly with the technologies of expert support for man-machine control systems. These conversations began just 30 years ago, with reports to the Club of Rome on the limits of growth, which stood three editions on the basis of three rounds of comprehensive studies, each of which sadly confirmed the previous forecast. Today, up to the problems predicted in the last of these reports, there are also about 30 years left, as when everyone was offered to give up the gold standard and start living on credit, eating the resources of future generations. But even today, many "experts" continue to measure public welfare in terms of economic growth. It seems that they did not watch one well-known film where a fat hero in the performance of Terry Jones explodes from a small mint tablets, splashing around with his own vomit ... Then the question of expert management systems was inseparable from the question of the means and methods of decision-making, control points and issuance of managers signals, and meanwhile today the topic of low level of provision of situational control systems with automated means of expert decision support remains topical. Is it accidental? Was it accidentally forgotten the basics?

But the main question (which for some reason today is somewhere by someone, if it is put, it's somehow imperceptible) is the question of what is management and management of what? The answer to it, which was that the highest form of government is viable management (and self-management) by viable systems, is also somehow forgotten. Go, start today to explain the breakthrough of managers (especially government, especially Russian) about viable systems! There everything is simple: viability is the ability to snatch and go through the authorities.

Today, there is a lot of chatter, cutting money, lying and incompetence around e-democracy, electronic people's government, democracy. Some try to get into the mess of current foreign summaries and statistics (mostly English-speaking ones) and clarify something about this concept without having the slightest idea of where the phenomenon originated from, or that it is in fact, and therefore completely unimportant and lost in conjecture about the fact that there is a

correct idea of this. Sincerely believing that this very concept can be clearly clarified in the news flow from the country that generated the Internet. It is understood that electronic democracy is an archival means of solving management problems. Of course, being an excuse for political demagoguery, it becomes a means of forging political capital, and also quite a personal financial one, by pawning the huge state funds allocated for this incomprehensible business, which thoroughly discredits the very concept whose nature is not explained to the majority of the abused population. The book mentions within the framework of which project the very idea of electronic democracy arose, what form it had originally, but most importantly – within the framework of what concept of social structure it was embodied. And this device, perhaps, is the most important moment with regard to the rational management of the country.

History shows that a very effective e-government system directly denies both a heavy bureaucratic machine, an opaque corruption apparatus, and self-contained corporate structures. An attempt to combine electronic control with these things today in Russia, and not only in it – ridiculous delusions, similar to the call for compliance with sterile conditions in the garbage dump. The only sphere where such management is present is financial. Two weeks are still fresh in memory, when after the collapse of large American companies in 2008 the exchanges remained calm, as soulless trade robots did not have any business before this collapse. But this "financial" aspect of management is another very important, and even the cornerstone among the things considered in the book.

The history of man-machine control systems and decision-making systems is, first of all, the history of the so-called "situational centers", not only originating in the 1970s, but also marking the whole paradigm of the way of development of information technologies, radically different from the paradigm that formed today's mass view of information technology, and more precisely – the idea of mass information technology. It was then that there was a fork in the ways of technological development, which, nevertheless, it is today that can intersect in a bizarre way, although for this it is necessary to realize with the utmost clarity their difference. One of the first things that needs to be realized here is that talking about tasks and functions of situational centers without regard to other components of human-machine control systems is like talking about facial expressions regardless of the head of which it is a part. Another thing that needs

to be realized is that the effectiveness of the work of "control centers" and related support systems (including analytical ones) is not reduced to purely technical, technological or technocratic things, but assumes a huge share of the humanitarian and even metaphysical dimension.

It is in this sense that we should consider the approach to the management of Oleg Grigoriev using the "narrative approach" in building an integral social theory (ascending, he said, to the "American school of historical narrative"). And in the same sense, to consider the problem of linking its projected and project activities in the framework of "counter-directional" management concepts, as described below in the chapter "Situational centers and non-centered management systems in the historical context of the development of cybernetics of "viable systems". Since this, in fact, is the basis for choosing the mode of action. Therefore, it makes sense to move on to clarify some of the historical and conceptual prerequisites of who is the person who shows the will to choose the action and acts as the subject of control, and what for the sake of what he does it.

## **About the "organized person" as the historical basis of the person-designer**

### **Additional creative aspect of an organized person**

Here – about the reverse side of creativity as a condition for the openness of an organized person to others, and the odious "intelligentsia" as its 150-year-old Russian version.

The neoconscious idea of creativity today is connected with the conception of a society of the future that is more and more clearly traced in outlines (in one of the variants of the discussion of this topic it was called the "cooperative empire" – this name is far from final and, by the way, already questioned but still remaining workers). In this connection, it is quite a rule-like anticipation of future objections within the framework of positive heuristics, with further refinement of one of the key theoretical concepts based on its results. It is clear, however, that creativity in neoconomics, which goes beyond its own economic primacy, is creativity in general, and not only creativity of the economic actor.

The activities for the creation of projects, postulated as creative and identified in their social attributes in subparagraphs 1-6 lecture number 28 of the 2nd cycle of

"Neoeconomics" Grigoriev represents a key interest within the framework of the concept of "cooperative empire". In fact, these points set the system of cooperative empire, in which each member of society is a man organized (according to Weber), but not closed in its individualism tightly, like a Leibniz monad, but capable of being open to other and cooperative interaction with them.

This, creative, activity, or activity in creating managerial processes and production-labor routines, within the framework of neoeconomics, was separated from the "creative", in fact, highly experienced, activity (like the creation of events) that does not produce real value (although, of course, in the framework of neoeconomics, the very concept of value has also been subjected to a rigorous revision).

This raises the question of who these others are: the other "organized" or "natural" ones, too, with a more open and, so to speak, "New Testament" (as opposed to the Protestant "Old Testament") impulse (stop, while I keep it to myself) to natural, in order to organize them? Judging by the fact that the "economic mess" can only be cooked with the sane, we are talking about organized and those of the "straight" who inspire optimism and give hope.

Actually, the co-operative empire is designated by OV Grigoriev as a definition of the social system of communism, in which balance or balance ensuring such an understanding is not supposed (concepts going through all political economy and neoclassicism), corresponding to the widespread existential apprehension of "blessing" and "paradise on earth", arising at the word "communism". That is, money that is not dominant, or residual, or "in a withdrawn form" is present in public processes is permissible there. On the other hand, judging by the last two lectures of the same, the second cycle, since money has become a substitute for knowledge, the construct after loss of money means the return of the power of knowledge; which, in turn, opens up not only ample opportunities for the development of a narrative approach, but also a field for solving a number of specific problems of knowledge management (which I also wrote on my website more than once).

According to neoeconomics, in its structure the cooperative empire must be based on unified principles of organization. As a system of cooperatives, they (and

perhaps not to me alone) are represented to me (in a form of swarms, cellular, clustered, non-centered, scalable structures of social self-organization, described in the general concepts of Benard, Voronoi-Dirichlet, Delaunay (and, incidentally, Descartes) . So, a separate task here is a rethinking of the concept of social "cells" interacting with other such "cells": this is the theme of small groups, sets of relatively small social communities and ways of interaction between them, including transit-logistic ones. And in a metaphysical sense these "cells" should be interpreted in relation to the general concepts of the authors mentioned.

At the same time, the structure and communities of the cooperative empire, and the components of the reproduction of knowledge in it, does not depend on the territorial dimensions of its presence, for it is postulated as being managed differently than the state systems of governing a society of known forms. In this connection, another, separate, task here is the consideration of the fact that the system of science, potentially existing within its framework, as part of such a society, reproduces its general structure and can be fruitfully existing only in accordance with such a structure. That is, we are talking about the principles of interaction of scientific groups and trends in the general system of the cooperative empire.

Inside the co-operative structures (whether they are arranged in a cellular structure or whatever), the idea of a creative person, taken in the set of its non-economic definitions (noted above), as capable of creating "managerial sausages" (stage-by-stage linear management processes) and industrial routines inventing.

Meanwhile, the definition of a creative personality by neoeconomics looks somehow inadequate. As noted in the section "On neoeconomics as a social science in the Weberian sense and not only", an organized person, embodied by a Weberian Protestant, is an Apollonian personality. But what happened to the Bergson impulse, the mentioned Dionysianism, and everything related to virtue? Not to mention the Husserlian intention and the Kantian transcendental imagination that he is considering? As you like, but all this is a narrative not about the "natural", but about a special way "organized", but such that lies outside the Weberian Apollo or "quasi-pologal" organization, given out for "organization in general." These things are the second part, complementary to what can be called "known organization." And, it seems, it is ignored by many of those who have struggled to comprehend neoeconomics "as it is."

But here – an additional challenge, because the organization of the "rush", or intentions, still need to learn. For this is something different in the level of self-management and self-organization, rather than that which results from the "Protestant apprehension". Here are the things that were opened by the historical layer of Italians of the early Renaissance, faced with questions of managing creativity (vivid examples – Cosimo the Elder and Brunelleschi, as well as Lorenzo's "brigade" and other "enlightened clowns"), in which the producing "impulse" was expressed most clearly.

Only a little later, Protestantism was formed, setting its standards of organization, where the impulses related to rushes were recorded in "natural". But this "little" marks a small, but very systematic, pre-Protestant, search period. To which, up to the heap, are considerations of Fr. Nicholas of Cusa, which formed the basis of modern virtualistics.

In this sense, a truly organized person is not the one who abstains and self-restrains without end (Freud's ideas – another contemporary of Weber

– I do not specifically consider here), but he who knows how to build and correlate periods of rush and regularity, imagination and givenness. And, by controlling them, that's how to master history. And in this sense, "Dionysium" should be built as a self-organization – and not as a counterbalance to the one that "according to Weber", but in addition. The challenge is that this, additional, self-organization, should still be learned, eliminating the risk of return to naturalness. The way here is through the understanding that staying in the field of imagination, intentio and virtus, as well as working with them, is something other than a simple reaction to external stimuli of the "natural person", which is precisely the content of the logic of the "choice path" of an organized person, in which this choice has its own, specific, nature of conditionality, but not entirely arbitrary. But it is also the logic of meaning, which forms the content integrity with the logic of the dialogue.

We still do not understand well, for example, the phenomena of affects in primary self-organization, etc. things. Meanwhile, literature on this account has already been worked out (here, just starting with a simple one, one might start to recall Freud). Meanwhile, the saddling and management of just such affects must be a true organization, since the Dionysian component of an organized person is

precisely the way out to the "other" – the basis and means of cooperative building of communications with others, overcoming the original Protestant, "only partially useful, "individualistic self-closure.

In terms of all these common subtleties, a small comment should be made about the Russian version of an organized person, formed in Russia in a definite, and not in a random way, but, as well as in Europe, which received significant conceptual distortions. It so happened that in Russia he became "an intelligent man". Of course, today this concept has nothing to do with Weber's, and Grigoryev (and not only him, by the way) had a lot of negative things about it, including in the sense that the so-called "intelligentsia", who thinks of himself than In fact, there is a lot of naturalness, that is, an animal. Meanwhile, having studied a lot of O. Grigoriev's statements on this score, I did not find in them the nature of the interpretation of the Russian understanding of intelligence and its problems presented below. What's the matter?

If one is distracted from the fact that the scholastic Latinism "intelligentio" means the army of the Christians, that is, the angels and archangels, and from further reasoning that the attribution of such a status is a kind of "synergism" in the Orthodox manner (although this Latinism is quite consistent with the goals of the original Protestantism), it is worth noting that the idea of an intelligent person as an organized one historically arose relatively recently in Russian literature thanks to A. Chekhov. Like the Weberian difference, he has an "intelligent person" not taken for himself in a set of incomprehensible and fuzzy definitions (for today, the length of a decade), but is contrasted to "a man of vulgarity," a vivid example of which at one time was the great Russian writer himself, like Saul and decided for some time "to squeeze out a slave by drop." Vulgarity is a nationality, which is closest to naturalness in the Protestant-Weberian sense. But only vulgarity here is the worst features of the nation, which should be overcome in oneself, leaving the best and developing them in some way, for in them the people have a Russian language as well as a source of folk wisdom and a "voice of God." And in this sense, the original moral message of the Russian organized person is not to oppose a sectarian-Protestant crowd to a crowd of "non-escaping" but to claim the elitism between the hammer of the state and the anvil of the people, to take care of carrying the people's signals from below upward, simultaneously nourishing this people with their "intelligence" as a model. Which, by the way, also corresponds to the concept of Grigoriev about the origin of the intelligentsia

of the West from graduates of humanitarian universities studying in them, in the end, for the civil service, as a self-enclosed stratum spreading influence over the people.

This, Chekhov's aspect in Russia was also imposed by the one mentioned in one of the lectures by Grigoriev: the idea of an "organized professional" penetrated into the masses and, spreading into them and becoming the world's mainstream European, as NTP developed and money was distributed from 2H XIX century began to supplant the original modesty and service to the vocation, returning the mass person back to the natural state. The period of the emancipation of the peasantry and the development of *raznochinstvo* in Russia, to which Chekhov lived, coincided with the period of erosion of "European money" of European Protestant ethics. The status of intelligence as a non-vulgarity in Russia coincided with the status of better consumption, eventually merging with it. These things began to mutually predetermine each other, instead of one Protestant thought as a consequence of the other. Moreover, unlike Protestant ethics, intellectuality in Russia, it seems, has never been conceived in the aspect of the success that follows from it, a private expression of which since the Reformation was money. The people – the bearer of God and His Ideas, demanding spiritual nourishment, as a child, and therefore conducting money transactions with him (and he is no other than a mass consumer) in this sense is perceived as "seduction of these little ones," and therefore is discredited. Meanwhile, the noted mixture and historical overlays led to the fact that, like Protestantism, the Russian "intelligence" eventually degenerated into the vulgarity of its own name, replacing the variety of well-known but interdependent and knowledge-demanding concepts of the mind, erudition, erudition, upbringing, honesty, shyness, education, wisdom, modesty, neatness, (without) responsibility, conscientiousness, etc., etc., a single word with a floating connotation, which opened up very wide opportunities for prostitution and manipulation. And, of course, made Lenin's caustic remark about the "brain of the nation" possible.

In general, this topic could be continued, but so far there is enough. What of all this follows? Be that as it may, there is an opportunity to talk about a Russian organized person and, however it may be called a consequence of whatever distortions it may be, its consideration of the analogous phenomenon of Europe and the general issues associated with it allows us to talk about its structural

features, Even though this structure is a projection trace. This organized person (or rather, what could have become of it) in Russia historically is mainly connected with the state and the bureaucracy, rather than with the firm, and in the sense of the latter it is rather rare that it is "the founder of business" rather than a "member of the clan". At the same time, the organization itself has a certain addition, which is common to the whole European culture, which is still not completely understood in controllability and applicability, but has a serious descriptive basis and the potential for resolving the tasks of building a new type of social system that does not reduce to previously known forms and, it seems, a good ground in the form of the mentioned Russian distortion.

### **About protestant overorganization**

Further – in the continuation of the conversation around the anthropology of a natural, organized and transcendental person. The realization of the limitations of any constructions of self-organizing consciousness (its formalisms) is both a problematic and productive moment of the modern anthropological type.

Sola gratia, sola fide, sole scriptura – the slogan of Protestantism. Fide and scriptura – understandable, and gratia – is that for an "organized person"? What is the "providence" that supplied the hero of the exemplary Protestant Defoe with the wreckage of the gun ships? (By the way, what did he have about the supernatural?) The only sober one that can be said about this is that theorems on the limitations of formalisms are implicitly embedded in Protestantism, and make up its organic part. Otherwise, it loses its vitality of entrepreneurial adventurism, fresh and productive directed at other people, drying up and turning into a Jewish neurotic recitative, woven from inert dogmas and literal perusal of the allegorical.

What does this fluctuation mean, which marks the beginning of randomness in a strict order? This is precisely the fundamental interdependence of the world, and the fluctuation of "providence" is nothing more than the descent of "world organics" into the hell of organization. Of course, this has the opposite side in the form of natural cycles of life and death. The sign of the first one can be considered Fuller's synergetics, which reads the world in the Spinozian-Cartesian principle "Deus sive natura", the sign of the second is the aestheticized nightmare of the Greenaway's "ZOO", or the aesthetic mathematics (by the way, completely fullerian) of Aescher's drawings. The discovery of the soberness of the organized

person is that he just has to act within the framework of a rather limited order of his consciousness with the obviously existing actively and actual unread processes of the external world. (Is not this situation the problem of Kant's "proof of the outside world" that attempted to discover the a priori absolute within the limited human understanding, and divide this understanding into a pure and practical one?) It was this situation that gave birth to the economy as a science and set the vector for building progressional scientificity in general. And since the task of the brave revolutionary-Protestant-the offensive and the onslaught on everything incomprehensible and terrible, it was undertaken by the self-defending mind, and rational ideas about "providence" were pushed into the field of meaningless "religious prejudices". And only much later, "providence" surfaced in the model, narrow-cybernetic, concept of "black box". It is noteworthy that now it has become inverse: now it is no longer the "knowing subject" that looks at the dark and incomprehensible systemic nature of the world from within a more or less lined boat of its consciousness, but on the contrary – it looks at the stimuli and reactions, entrances and exits from this side of the world, which something, a microcosm, things-in-itself, as if incorporating a once active and dark external world (which, of course, according to "sober" reasoning, is presented in a black box in a model form). And this world, from which the observer contemplates the "black box", is already, as it were, himself, for it has already been explained by rational, unambiguous and sober, scientific thinking. Only this is a snag: this external, "explained" world, is nothing but "laboratory conditions", that is, the organization of the organization around itself, continuing some internal, "Protestant" self-organization of the individual, but it is assumed that the organization is distributed and beyond the "laboratory". In other words, this is the situation when the black box is explained, with the "spirit" present in it – the rational observer, observing the black box, not explained in its spirit and rationality (in order to eventually find that there is no spirit there and no). In this sense, the Victorian apartments and laboratories were much more honest: people were shut off by the numerous subject world of things that had a close and warm semantic connection with the personality of the tenant, from the vicious world of commerce, the bazaar, grass roots, factory hooters and street mud. But that already was a more understandable world, although for a while (simply "laboratory" spread to the entire industrial ecumene).

Be that as it may, in all these cases, with the possible exception of early reflections, the area of the "active unknown" has always been an unacceptable and subject to disclosure. The alignment of the question and dialogue method, taking into account this, not even a set, but, so to speak, a negative set (or, merely, undersized, or, more precisely, yet-not-whole) was not conducted, because in the period of cheap money and thought there was no you can build a dialogue with something big and incomprehensible (what if it's an octopus?). But even at the dawn of "cheap money," when pure Protestantism was the most developed, such thoughts were. And they were, it seems, mostly from the British – for, as said above, something inside the world, active, although poorly explained, but distinctly felt, and as something new. Another example of an Englishman – the rationalizer of the supra-rational – Berkeley, whom Swift respected. Although, of course, Swift himself must be considered within the strict denial of the natural principle of man, opposed to the Protestant acceptance of what goes beyond already formed organization.

### **To the natural idea of the human-logos**

In the light of what is happening in the world, Christianity, perhaps, requires a new Reformation, but on more sane, weighed and demystified grounds than it was centuries before. As far as it should be, and whether it will be artistic, it is unclear. These grounds should be positive. However, knowing how odious things at one time was explained by the name "positive Christianity", I refused it, choosing the word "natural", in other words, "natural." And that it is natural, it is not a sin.

### **Briefly about the problem**

Mass vague expectations of every apocalyptic-crisis (etymologically translated from Greek as a court), brought to Russia gifts of the Magi with some kind of irresponsible attempt on them, some kind of hitchhiking that climbed onto the Orthodox temple, a process called violation of the ethno-confessional balance and unthinkable earlier applications on the supposedly "anti-xenophobic" demonstration by representatives of ethnoconfessional groups, for many years, in the most insolent manner, violating the norms and customs of their places, in general, a guest stay, ie a double bombing in the city-symbol of the victory over fascism on the eve of New Year, Christmas (and feasting during the plague

Olympics in Sochi) – the events of recent years. All this – with the total inability of official Orthodox clerics to engage in a constructive solution to public problems and, it seems, adequately respond to their own internal church processes, and with complete connivance (if not indulgence) to all these things of the federal officials of all levels.

Here it would be unfair to confine ourselves to Russia, and therefore it is worth saying that the official referents of Christianity in many respects and in the Catholic world remain nothing more than a screen that protects a certain sphere of manipulation by social groups, formed by a historical reenactment retrograde in a medieval manner, based on a miracle and mystifications as required objects of faith, mixed with historical information and forming in this mixture the so-called "sacred history". But the right to solve the problems of the "Western world" must probably be left behind this world.

All this looks like a miserable construction in contrasting, in the same sense, something meaningful to the trend of the rise of the Arabic-speaking Islamic world, which, in the final analysis, forms a single confessional community with the Christian world. However, peace, unlike the Christian, more effectively resisting neo-liberalism (opposing the value basis of the Christian world in its value basis), as a non-knowlegeable (not yet learned) Reformation and its social relations derived from it. And perhaps, and not able to know it, because of the pre-archaic cultural characteristics, known since the time of the Marathon and the Trojan War. An attempt to explain and stimulate in the society of Christian traditions from the standpoint of Christian rationality is broken up by the emerging Protestant and post-Protestant rationality of the "era of positive knowledge" or "the era of scientific and technological revolution". The clinch between these two rationalities of the "old" and "new" Christianity is durable, like a ratchet mechanism, and it very seriously blocks the possibility of a meaningful polemic, remaining on the original value position. A consequence of this is such things as the radicalization of Russian, predominantly regional, youth, which is becoming a trend, taking place either in the form of brown shirts (due to the mass nature of trends, such "subtleties" as the "nationalist International" and its productive capacities, as a rule, are taken), or ("suddenly") in the form of an attempt by the same category of citizens of extremist Islamic sectarianism, unsuccessfully spread by the narco-terrorist schemes of the early 20th century to the territory and

modern Russia. It would be possible to name other forms of radical reaction to what is happening (for example, in addition to brown-shirts and "Russian Wahhatbits" mention "gorunwangs" or something else), but these two seem to me to be the main.

In the sense of what has been said, a rational view of the supra-rational is the path of productive development of the post-European Muslim world, bypassing mysticism. This is the direction of a new sober talk about the world order and, at the same time, the memory of something thoroughly forgotten – and started quite within the framework of European thought, but referring to issues of a global order, within the framework and consequences of which were formed both territorial empires and national states.

### **Approximation to the solution**

If a certain lengthy process is complicated to a degree of uncontrolled and clear dangers, then one must return to its roots, getting rid of a number of historical strata and the attendant circumstances of its interpretations. That is, to realize its phenomenological reduction. Christianity is such a process of the consistent formation of a system of value adherences that has arisen in certain historical conditions, subsequently overgrown with political and economic interests, art forms, cognitive practices and social practices, including folk superstitions that form part of these practices. And, of course, within the framework of cognitive practices, philosophical interpretations and reflections, the development of logic and hermeneutics as cognitive means, as well as applied knowledge in the field of economics, medicine and other branches of culture, were found invariably, leading ultimately to the possibility of thinking the phenomenon of religion and religious consciousness (not necessarily, by the way, suggesting a personal way out of this phenomenon).

Reductions must undergo ritual, liturgical and dogmatic positions that differ confessionally within Christianity, and the very beginning of this religion should become the object of clarifying the conditions of its emergence for those who share a value basis. It is clear that the neurosis and the furnishing of the complexity of the world by the symbolism of artificial rules is a source and part of culture, but what relation does neurosis have to the solution of value problems? On these things, who just did not walk, but all walked around here Freud – the

greatest atheist. But somehow he brought everyone to the psychosome, not bothering to clarify the moment that unconscious and subtle emotions are the ability corresponding to the subtle orders of the external world, and it is necessary to build subtle relationships of mutual control with it, including those that are barely seen today's official science (as it can partly be reconstructed from a number of moments of the medieval world view), and not only to impersonate and transform the desires of the flesh culturally. The question of the effect of supra-rational conditions is not altogether excluded (as it could be in a purely scientific or positivistic approach), but it is taken in its objectified form. The content of such a reduction will invariably be general for both canonical and positive (religious) interpretation. Addressing such content and clarifying it will allow us to draw parallels in our days and productively implement the necessary correction of the original installations. In any case, such a correction was made to the Reformation, and if it was caused by a certain vital necessity, and its consequences did not lead to the most desirable results, then today such an appeal to the principles would certainly be justified.

In this kind of natural consideration, regardless of whether Jesus recognizes Jesus as the Son of God and the miracles connected with this status, hardly any of the experts in theology will doubt that he is an outstanding religious and political thinker and a humanist of the Jews of the era of Roman rule. His character, as far as can be judged from the traditions, was characterized by good irony, and he liked to speak instructive anecdotes. His appearance in this capacity as the son of man took place not only in the era of Roman rule, but also in the period of the existence of at least three parties, or religious and political movements that existed at that time. The first of these was the Sadducees, a Jewish priestly caste, consisting of persons who considered that they should have increased social obligation to themselves as the supreme custodians and bearers of the Mosaic commandments, whose analogue today is represented by bearded and hierarchically built men in long-legged medieval clothes claiming spiritual and moral superiority over other members of society, whom they call the "flock" (that is, the herd). Second – the Essenes, who believed that the people of the Jews had warped and forgotten the commandments of Moses, and therefore we must leave the world and restore life in these separate commandments in isolated monasteries from a clean slate. Their today's analogues are monks. In general,

there are not so many Christian monks in the present societies with old Christian traditions, but many other cultural forms of escapism and asceticism, but from simple desires to be alone or start from scratch, this religious and political tradition was marked by a degree of manifestation and radical measures, up to lifelong vows of self-limitation and social isolation. Still others are the Pharisees, who advanced a progressive slogan that "not a people for the law, but a law for the people", which contains a whole program of religious and legal hermeneutics. It was with them that Jesus polemised, considering them, probably, the most sane and worthy opponents. These guys in their views were very close to the Roman Stoics, who were predominantly moral ethics and fatalists, absorbing almost all the achievements of ancient philosophy, the forefathers of existentialism and the lion's share of the moral pathos of early patristic texts. And, incidentally, the economic discourse, which later significantly changed the very Christianity in the "long XVI century." It is no accident afterwards that Vienna, bought from the Celtic leader by the last philosopher of antiquity, the Stoic Marcus Aurelius, for centuries became the center of the state, non-priestly, imperial Christianity.

Among the Pharisees there were many followers of Jesus, and the most, perhaps, famous of them – the apostle Nicodemus, who bought the body of the Teacher, in the iconography of the "removal from the cross" depicted holding his feet. The main message of the criticism of the Pharisees by Jesus consisted precisely in the fact that these people, proclaiming good things, do not themselves follow what they are saying, and so they are deceiving. This criticism is also addressed to the Stoics. A stoic explanation for such a position can be found in one of Seneca's letters to Lucilla, where he says that his task is to do the proper research and inform the world about what, and as for the follow, then, being a simple man with his inherent defects, he , is sinful, and therefore it is not always possible to expect the due one from him. It is in this sense that the person whose epithet was "The Word", "Logos", denied this approach, arguing that the word should not disagree with following it, and no circumstances can be an excuse for evading the declaration: to oneself or to others; especially if a person is openly and systematically engaged in clarifying and declaring the due. From this there are very important conclusions.

First of all, this means refusing recognition (lost in the centuries) of the original depravity or sinfulness of man, as an argument that can be invoked in the

regulation and explanation of actions, including one's own. Because a Christian person is not only that he was formed as external educational or philosophical attitudes, but, above all, what he consciously chose, with which he agreed as with due obedience, and what follows.

And if it does not follow, then it either doubts the logic of the due, and then must reconsider the correctness of this logic, built on the original system of values, in order to receive the correct grounds for adherence, or denies the true due to them (in this sense, the "blasphemy on The Holy Spirit "), or lies and cunning in front of others, saying one thing, but following another, and thereby withdraws himself from society and the division of common values. So you can exist in a society as a saboteur or scout, and only a certain time, motivated by the good of another society, but sincerely believe that such an initially hostile installation, as the norm of existence in the environment that forms you, has very unhealthy prospects, conditioned by launching the process of loss of meaning. This, in particular, refers to the consideration "you can not deceive – you will not sell." What did the Logos do with the merchants?

From the point of view of the modern science of logic, the requirement to follow the declared due means that any judgment with some estimated value, recognized by its declarer as reliable in this attribution of value to this judgment, invariably turns into an imperative applicable to the declarant, or a meaningful regulator of its behavior. In other words, there is a case when the Constitution becomes performative.

The word is the regulator of behavior through reason and reason, which for every Christian are the gifts of God. That is why, in most cases, the Christian maxim "do not judge, but you will not be judged" is misunderstood. It is not a question of refusal of judgment, for it would be a refusal of the gift of God, but that the measure of one's own judgments about others means a measure of others' judgments about oneself and, in fact, is a variant of the golden rule of ethics, which maintains the same measure of good faith , sincerity, goodwill, usefulness and justice of judgment about others, which is desirable in relation to oneself from others. Only speech here is about judgment, or the Word. Therefore, in this maxim there is also a demand to develop one's reason, motivated by the

consideration of the public good. Without judgment, there is no embodiment of the Law in everyday life, but the ability of judgment requires development.

The famous phrase "you are told, and I tell you ..." means the opportunity to act and adapt the valuable past to the present, so that "the word became flesh, and dwelt with us, full of grace and truth." This is the requirement to translate the word into practice, and work to clarify the Word, and therefore – the requirement of the most conscientious work of adapting the word to the questions of current life and bearing for the consequences of following responsibility to it in the measure of this conscientiousness, the ability to speak one's word, as the Word of the Law is overcome and supplemented with the word grace, for the measure of which we are responsible for the most part only ourselves, and therefore, really, is not meant to be a dry logic, empty accusation or blind faith ("the law for the people a "). For the law is good in development and its own scenario embodiment in life.

This – to what some authors say about the commandments of the builder of communism as a calico from the Christian commandments. It was when the leader, following the teachings of those who believed that philosophy should change lives, and not just explain, dogmatically limited themselves to conclusions and within the framework of these teachings pronounced attitudes, and did not look at their variations in productive development, rejecting those who were and the "cadres" created by the leader, following the behavioral example to a greater extent than the leader's word, also dogmatically took his word in the "Economic Problems of Socialism" and other works, and did not bother to look at words and teachings in development, at in the end, they lost the country to a morally lower enemy, but more operative in matters of governance. Thus, Bogdanov was rejected, and those who productively embodied his ideas in life were far from the center of managerial attention, and acted in conditions when the management system was already starting to bite. This is not talking about others like them.

The word that is not used and not adapted by one's own practice eventually becomes a dry and inadequate dogma, and the behavior of a person not regulated more by the word to which he was committed begins to be dictated in a completely different word – including by distorting and distorting the original. Only here adherence to the word has a very clear structure and a cycle of life,

which are different from the cowardly-escapical rezioznoznosti many "votserkovlennyh" believers. These cycles are not homogeneous, and are associated with the different urgency of the manifestation of the Universal Laws in life. You can not violate or enforce the law, when there are no conditions that require its execution, but this does not mean that the law does not work. And who said that initially we understood and explained it correctly?

In this positive, spirit and style I propose to consider the ideas and meanings of Christianity. And consideration of this type should become a mass (in any case, a more massive) phenomenon among the carriers of these values. Since the currently existing, "officially declared" forms of its manifestation, to a large extent, to the impossibility of dumbness and miserability in front of the masses of threats that are approaching its world, and sometimes declared by the same "official" representatives (sometimes key ones), it is outrageously at odds with the initial messages and values settings. As Heidegger said, "Being, like time, should not be denied the former meanings – a more original interpretation should determine their rights and boundaries."

### **About neoeconomics as a social science in the Weberian sense and not only**

On some problems and further opportunities for the deployment of a "narrative-query" system of public knowledge, and, furthermore, apparently, of any systemic knowledge in general. Including – the question of how to combine narratives, especially if they are large.

Is it worth considering neoeconomics as an "integral social science" in the context of a given heap of other humanitarian and philosophical disciplines: for example, if a certain theory of knowledge is imputed to this science, it is first necessary to ask the question of why it should be considered within the framework of this or that theory, especially if she herself is a theory? And, by the way: which theory of knowledge? There are many epistemological and epistemic installations. Moreover, neoeconomics, as well as other humanitarian synthetic areas, are interdependent with others. And how, and most importantly, again, why, should they be separated differently than labeling aspects? It also hardly makes sense to consider neoeconomics in general from the positions of specific sciences – sociology or political science, for example (if it is a question of integral "social" science): after all, if the economic, E-component, STEP complex collapses if the

United States is the only place where social science has been developing more or less systemically?), then all the others behind it also: much has been written about the crisis of the foundations of sociology (S), and about the crisis of politics (P) , but about the fact that the problem occurs with scientific and technical progress (T), says neoeconomics itself – not to mention various kinds of assessment of the prospects of technological development. Here you can add demography and some other areas of knowledge. It is possible to recall the previous attempt to construct such an integral system undertaken by Marx – in many ways it was successful, but nevertheless its peculiarity is that some aspects of this system, despite all criticism, stand the test of time, while others obviously need in revision. And the point is not whether Marx was or was not right, having made such an attempt – his experience is titanic! The question is whether it is worthwhile to build a "theory of everything", and if to build, then where to start, so that it would be intelligible.

In the sense of how neoeconomics is built, openly voiced by the founder of the neoeconomics O.V. Grigoriev in the 18th lecture of the 2nd cycle, where the tasks of the new social theory have already been noted: the creation of a system of organized Weberian-type people, capable, nevertheless, organization, overcome the hermeticism of its own, initially individualistic, position, reaching the level of others like them, but ceasing to somehow suspect them in Weberian naturalness. The basis for interaction postulates produced or open narratives that respond to queries-questions of one another, connecting one to another and forming an open system. This is very logical, avant-garde and capable of being nice to the heart, for it corresponds to the most constructive that exists in modern poststructuralism, the language of science and system theory: Grigoriev's proposed system of knowledge turns out to be a rhizome (who only tired of not understanding how to apply it) network (only on the basis of which the social network is built), and in the sense of construction – something like a Japanese metabolic architecture. However, one should not overlook a noticeable contradiction, since it is necessary to overcome both the mass environment of the returnees in the years 1860-1870. greedy "natural" bourgeois, and build on a new, cooperative imperial principles, a society led by an elite of organized people who, nevertheless, do not inherent in the original Protestant qualities in the Weberian sense. Namely, they 1) should not perceive themselves as more "small

nedogobami", in general by any "gods" – images of the "great God", and therefore, to overcome their choice of vocation, that is, to rationalize even more the choice of the desire of one desire to everyone else; and in fact, by the way, organizing all around him a "shortage" is a demiurge; with what archetype to bind yourself, and whether an archetype is needed for demiurgic anthropology in general? And 2) – they must abandon the associated individualism in favor of cooperativeism, but such that, first, to retain the ability to produce a demiurgic organization around them, and secondly, to overcome the conflict when cooperating with their own kind (although this the problem must be solved, according to Grigoriev, through the openness and interrogation of "narrative portals"). Finally, 3) – they should not be carried away by the "passions" of modern natural people, which can sometimes turn out not to be passions at all (but, for example, suffering).

It is important that the structure of knowledge proposed by Grigoriev for neoconomics is most likely the main subject of the description by means of such a construction as the proposed model structure for the purely economic part of neoconomics that emerged independently of it and breaks the very structure of the model – the subject-scientific expression of the Protestant vocation-profession. The essence of my observation is that, when trying to construct a dialogue model, the most model structure (in its classical form), if it does not disintegrate, becomes fundamentally different, and that in it the performative question begins to appear as model conditions or criteria for attributing values, but not a constitutive axiomatic conditional proposition about the attribution of meaning. Which, by the way, fully agrees with the concept of Grigoriev that the whole amount of science within itself should (at least in the conditions of today's global crisis) satisfy requests from other areas of knowledge before from its own. And this is correlated with the task of overcoming the individualism of an organized person. There are two problems here.

The first is related to the fact that such requests neoconomics (being fundamentally and reasonably postulated as "rhizomatic" knowledge) presents biology, and that – chemistry, and that – physics, that is, the fields of knowledge representing the bureaucratic establishment of scientific institutes received by the url-classification by way of; and, indeed, decisive, quite in accordance with the logic of the "inner empire," its own, and no other, tasks. The specific history of

the appearance of neoeconomics as a revision of the whole history is precisely known, namely, first of all, the economic (and no other) thought (conomic) that became possible when trying to solve the concrete historical problem of the relationship between developed and developing states. Given that the things that neoeconomics started (the NTP itself and the economic science existing within it) are proclaimed as covered with cracks, what do we look at when we talk about the scientific nature of neoeconomics: on cracks? And on what cracks? If we are talking about wholeness, then its property is the impossibility of a separate existence of subsystems without integration into the overall system – just as there is no nervous, circulatory or lymphatic system apart from the whole organism (not speaking of what does not work). So, it is necessary that neoeconomics, like a sponge, devour the remnants of the disintegrating system of scientific knowledge of the NTP era? But how? It should become an organizing and reformatting beginning (as the primary source of inquiries to science), but the question should be raised as to how to create a new system of science that goes beyond the historical framework of the scientific nature of the era of scientific and technological progress and the solution of the corresponding tasks, neoeconomics should master the existing resources of the disintegrating system of scientific production. Is it possible and is neoeconomy capable of attracting foreign resources of this kind? It is clear that this should be done in the model of a cooperative-open organized person, involving the most active, non-conforming and purposeful carriers of the current systems of branch science in the processes of a new, fascinating, scientific game. That is why the second problem concerns, in fact, the interpretation of the organized man Weber. For him, there are original Protestant islands of organization in the sea of "naturalness", which at first become more and cover the whole of society, becoming a dominant and displacing naturalness in the marginalitet; and then, having massed themselves over time, again "degrade" to the naturalness of status consumption in conditions of an excess of money supply. At the same time, the perniciousness of a natural person still remains harmful, and in society a contradiction arises between a natural status consumer and an organized producer-businessman, to whom such "straight" people are "suddenly" profitable, and who, incidentally, himself has to resort to a completely non-Protestant status business entourage.

However, there is another picture in which a natural person balances an organized one, rather than speaking about him as a "barbarian land" – this is a picture of Nietzsche, his doctrine of the Dionysian and Apollonian principles (Nietzsche himself is mentioned a couple of times by Grigoriev in the same 18 lectures 2 cycles about Max Weber and the spirit of capitalism, but both times casually). And here, natural Dionysianism has a primacy over an ordered and organized apollonia, it is they who measure and evaluate the apprehension. Just in contrast to the directly opposite position of Weber, who, in the Nietzschean interpretation, apollonism is embodied in the Protestant spirit of capitalism, and Dionysianism is the image of anthropologically second-rate, subhuman, "cabbage." Meanwhile, it is important that, although Nietzsche himself, like Weber, is afraid and distrusts the Dionysian principle, he, nevertheless, has precisely that origin, namely, the beginning of chthonic and feminine. But if so, the actually Weberian concept of an organized person looks like a center on the "order" of "chaos" (quite in the sense of Derrida's "phallogocentrism").

But if so, then Protestantism is even more "repatriation" of the original patriarchal Catholicism, which seems to be something more than just singling out people of both sexes from the masses of greedy, natural and spontaneously virtuous people; had a further historical effect on the imposition of men's functions on women as a means of overcoming "primordial sinfulness", gender equality, feminism and other social "surprises", sometimes accompanied by a reaction of unrestrained debauchery and passion for perversions. And this circumstance, apparently, is a response to the question posed by Grigoriev in the 17th lecture of the second cycle of the question of why, with such a thorough clarification of the Protestant roots of capitalism, Weber made such a strange and discouraging conclusion from him: that under capitalism, "professionals still more professional ": this conclusion of the German sociologist can be understood if we equate professionalism with patriarchy. Here you can cite the example of the Scientific Center "Neoeconomics", how the service-related service of the profession, at least in the USA, was a man's occupation up to the 1970s, and the income growth of American households since this time is explained by the beginning of work the female part of society – despite the fact that the average earnings in the country as a whole fell.

Nevertheless, the question remains as to why Weber did not react to the version of the binary ("equilibrium"?) Opposition of "Apollo and Dionysus", although he was a contemporary of Nietzsche. As well as Grigoriev's question about why Weber did not go to any factory of his time and did not find out what the professional vocation of a man is, stamping the same incomprehensible detail to him every day. Be that as it may, the fact that the Nietzschean center on Dionysianism, and, in modern terms, the Weberian discovery of "centering on Apollonism," is diametrically opposed. And the fact that in the first half of the 20th century the Germans officially appointed the Apollonian industry in the service of the Nietzschean spirit, which was peculiarly understood. I can not restrain myself, and I believe, by the way, I will hint at what I said about the female "suction" and cooling, "matriarchal" dominant technologies and thinking of the world of ancient people in the world. counterbalance to the "pressing" and heating, "patriarchal" dominance of multi-hundred-year technologies and the thinking of the world of modern people, the generous forester Schauburger: despite the fact that references to archaeological antiquities in his works are quite rare, I managed to somehow subtract his argument that precedes ours, the ancient "matriarchal" technological dominance went into oblivion just because of the excessive focus on herself. Although, once again, this replica is only a "portal" in another, but very important, narrative.

For thirty years the author of neoeconomics created an entirely new system of concepts and postulates that turns the neoclassical economic notions upside down – a holistic and coherent one. In view of the fact that it was not possible to find solutions to the existing problems of the world within the framework of these constructions that demonstrated explanatory and prognostic value, it was decided to move to the field of consideration of the political process, discovering that it is necessary to create new formats for managing society, circumstances, that the implementation of a new economic life must be carried out in new residential areas. This, as well as numerous allusions to other interdisciplinary areas, became possible largely due to the fact that the founder of neoeconomics Oleg Grigoriev is an expert in economic cybernetics, a connoisseur of bureaucratic management and in general a very versatile and knowledgeable person. In this regard, I see productive to deviate from the costly consideration of a heap of related scientific languages and directions, and to search for those authors in the

relevant fields of knowledge, whose position would be most consonant with the non-economic, choosing them out of the whole variety of theories and positions. For what constituted the integrity of the former humanitarian scientific organism is the old bellows, and neoconomics is the new wine.

Since the basis of neoconomics is a narrative approach, or a discursive approach (going back to the "American school of historical narrative"), which inevitably involves historical consideration within its framework, I see the first attempt to combine discourses to clarify the connection between neoconomics and history as the domain of its working methodological foundations. And here – the search for those historical concepts that can provide answers to non-economic issues.

If we proceed from the neoconomy itself, then the way of interaction for building a new science, as well as a new society, should also be cooperative (according to the 13th lecture of the 2nd cycle, the course "Management and Elitology"); that is, neoconomics also should seek places of contact with those who are close to it in the theoretical sense, and think in a similar vein, especially among contemporaries. It's not about creating a scientific school in its well-known and most widespread – Soviet – sense, although, of course, since the author of the non-economic theory is Grigoriev (in turn, according to him, representing the second generation of the school of Danilov- Danilyan), of course, in a certain sense (structural), we can talk about a scientific school. The question of whether neoconomics is a scientific school is discussed here in the section "Neoconomics as a scientific school". Nevertheless, if we talk about the prospect of a "cooperative empire", then the applied question should concern specific methods of scientific cooperation. Indeed, how does neoconomics unite with others without being dissolved in them? For example, how, within the framework of this research program, to accept the discussion of the historical process mentioned in the course of lectures from the standpoint of the three-component theory of SA Nefedov without being discouraged by the totality of the Malthusian-Ricardian signs of the universally observed processes of the global crisis? How to find sketches of optimism, without having from the point of view of another science the obvious reasons for it? Here is the question of the way of interaction, as it is a question of how to recognize the value of the ideas of others, not allowing them to eat their own ideas and not being eaten by them. The answer here is the already mentioned presentation of mutual, interdisciplinary requests, organized

by their narrative tasks of business figures and new type of scientists (which, incidentally, still needs to be created) is the demand for information, although this issue remains relevant in the conditions of the persisting dominance of the individualistic dominant of academic media . Part of the answer to this question should be the proposed strategy for me to revise the notion of model structures, proposed in the section "The question of approaches to science in neoeconomics in the aspect of the concept of a model" for explication of basic neoeconomic concepts. But this is not all – we need not only a logical structure, but also substantive criteria of scientific methodology, permissible within its framework. For example, the thesis of the admissibility of accepting the point of view of the original theory / program (in this case, neoeconomics) of the postulate (or their sequence) of another theory / program, if they are relative to the original theory / program:

- do not contradict it;
- anticipate its conclusions or objections in its direction (in the sense of positive heuristics);
- expand the scope of its application;
- complement its software core; and of course;
- answer the question posed by the original subject area to this particular subject area.

This list for certain can be continued, but the elaboration of these things is a matter of further specifics. Be that as it may, such a methodology should create the basis for expert cooperation of scientific teams acting in some way in unison. And it is all the more necessary to develop such methods of a meaningful combination of neoeconomics with the developments that are close to it, since the neoconscious concept that has arisen in a private way breaks the very foundations of general scientific methodology.

### **Design and neoeconomics: a comparison of Grigoriev and Papanek's views on project activities as creative**

Within the framework of this section, an attempt is made to work out some difficult places in the neoeconomic theory related to project management-activity-thinking, referring to the concept of "integrated design", appearing adjacent to it and developed by its author, expressing close to neoeconomic ideas in the field, at

first glance , not related to the economy. In the same sense, an attempt is made to treat the fundamental economic concept of money as a specific and very stable, but nevertheless private, human invention. In the course of the discussion, some considerations are given, which may be further developed in separate topics. In the end, the assumption is made about the admissibility of fundamental differences in the function and role of monetary systems of different epochs, depending on the wider context of the socio-economic environment, and the tasks associated with it.

### **Holistic social science: is it not urbanistics?**

Observation of the author of these lines for the process of collective creative searches in the Scientific and Research Center "Neoeconomics" to. 2014 – st. 2015 led to the impression that these searches, indeed, rested in the limits of the economic narrative (since neoeconomics is still a radical reflection of precisely economic science), were marked by an attempt to exit the subject of neoeconomics towards an integral social science (none, except Karl Marx, until now not undertaken). However, with all due respect to such a great boldness (which is also the research program "neoeconomy" in its original, economic form), today the system conversation in the framework of such an attempt up to the noted period of time occurs at the level of operating hypotheses about cultural-anthropological archetypes, which, apparently, in the future is supposed to be converted into basic universals of holistic social science knowledge. Despite the importance of the educational and educational processes within the SIC, and especially the unconditional importance in generating working hypotheses for the development of a neoeconomic theory, the uniqueness of this practice seems insufficient – primarily because the study of the issues of project activity, which neoeconomics says about the main (and, perhaps, the only) direction of solving the problems of managing social processes, and in all, and a very broad, field of social sciences, is not reduced to this alone processes. And this despite the fact that these problems are recognized by Grigoriev himself as more fundamental and superior to the problem of the economy proper (in the framework of which, in the opinion of O.Grigoriev, there are no fundamental solutions to Russian and global problems of the turn of the 20th and 21st centuries).

In my opinion, the solution of problems of constructing integral social knowledge is possible within the subject, although relatively recent, but already very well-

developed, having its name – in urbanistics, which is most easily defined as a system of general and applied knowledge of human settlements on planet Earth, and including data on economy, architecture, sociology, demography, political science, social psychology and psychology of visual perception, as well as other sciences. In this sense, urbanistics is like medicine, which, being a vast field of activity, consisting of a multitude of complementary specializations and sciences, is not itself a science in its own sense. An important aspect of this approach is that it is urbanistics that makes it possible to combine the amount of knowledge about the society with knowledge about the organization of the environment, including the available natural resources and resources realized within the framework of productive and constructive processes of activity (or that we also called technology). In the same sense, creation of an urban, integrated science, based on a neoeconomic narrative as a kind of activator of the intellectual process – a source of breakthrough conceptualizations working in positive heuristics (in the sense of I. Lakatos) is seen productive, as well as containing an accentuated idea of the connection of technology with the economy. But the result will be the formation of a holistic, knowledge-intensive activity practice, where economic issues will be private – one that, perhaps, will overcome its very name "urbanistics" when it incorporates practices of managing environmental and climate systems. And since this is so, the idea of the project activity developed in neoeconomics must be expanded and go beyond the actual management of people's activities towards the ultimate meaning of this activity, even if one makes some other sense of it, in addition to extracting money profit. It is hardly justifiable to talk about "natural self-regulation of demand" – even in the case of the appearance of "the right designers" who are able to translate the work and experience into the regularity of "watchmaking", since the society of the same designers is ultimately the society of those who form in its daily routine, gross demand, based on the ideas of its own needs, but in most cases and in its mass is not able to give a competent account of either their source or their soundness: for example, the fact that most people who want to have a home do not know anything about the hygiene of housing, at one time, I remember, said V.L. Glazychev, and on the importance of considering producers and consumers as the same persons, O. Grigoriev himself focused attention. On the position that presupposes the latest circumstances in the project approach, and we will discuss it below.

## Unity of value accents of economic and non-economic project approaches

Immediately make a reservation that from here on, I will not "pick the same one" (as it may seem to someone), but "try to talk about the different facets of the same thing", which, of course, there are different things, especially when it is possible to grope something close to each other, while it seems very productive for comparison.

Project activities can be meaningfully defined through the design category, the most breakthrough conceptual developments in the field of which are simultaneously the developments in the field of project thinking. The explanation of why neo-economy has not yet reached the realm of these narratives, in my opinion, is in the same, mostly economic, status of the majority of neo-economic narratives, whereas the very theme of design, having an unconditional content bridge with these narratives through non-technological set (PTM) and organized forces of nature (which have not received sufficient attention in the framework of this research program), in essence, is fundamentally non-economic rather, fundamentally superior to the subject in the degree of generality, as well as the subject of architectural knowledge from which it originated and which today includes (see. below remark about L. Alberti).

For reference, it is useful to consider the identity of the translation of English words project and design:

- project: 1. – and the plan, and the program, the development, as well as the research task, as well as the idea, thought, intention; 2. – mapping, discarding [i.e., "projection"], highlighting or outlining on the background, ejecting, releasing, protruding, highlighting [which, again, always occurs against the background of something], as well as incarnation, transfer and demonstration;
- design: 1. – brainchild, intent, intention, purpose, intrigue, as well as the same plan, drawing, sketch, sketch, model, template, (basic) scheme, composition; 2. – an idea, a notion, development, planning, the intention to go somewhere, to designate, to construct, to do sketches-sketches-patterns.

It can be seen that if the translations of the word "project" tell us about something as a given, and the givenness of something outstanding in one way or another, and in its constitutional sense, and its present presence or presentation

– even if it is a question about something not yet embodied, such as an idea or intention, the word "design" implies not only the design of the goal or intention, but, first of all, the direction to its embodiment, the tension between the potential and the actual – intention (and therefore opens in the project activity and thinking The importance of the phenomenological narrative associated with an organized and thoughtful observation of everyday life, connected not only with the question of how to achieve goals under the existing conditions, but also what goals to set). That is, design is always, in a certain sense, something more dynamic than a project.

That is why the creator-projector entrepreneur Grigoriev, who seeks to provide the most dynamic view of all social processes, can be considered as a designer. But it also means, taking into account the whole context of realistic ideas about design, that it is necessary to admit a certain share of the humanitarian and artistic. Projective thinking is the basis of the project activity, which Grigoriev is talking about: it forms it, but this thinking itself must be formed. A new designer, considered in such an expanded sense, seems able to overcome the theoretical and applied gloominess of the economy (especially today) on the field of a more integrated social science of urban studies (which should still be understood in this capacity) towards a new humanism. Hence the question arises: Is it not the designer who should replace the economist, if the economy itself as a science arose from the tasks of the entrepreneur?

Among the leaders of project thinking, as well as the most radical and breakthrough ideas about the design of the 20th century, Richard Buckminster Fuller and Victor Papanek should be specially considered. Being widely known at the world level (but, alas, not yet widely known in Russia), both by design and philosophical ideas, Fuller hardly has direct points of contact with economic science. Much more close to Grigoriev's views are the views of another theorist of design, Papanek (who in many respects agrees with the ideas of his friend Fuller), a supporter of the so-called integrated design (ID) concept, which undertakes a comprehensive reproduction of the design process aimed at solving the tasks of everyday life worlds of people as developed, both developing and developing countries, taking into account the specific specificity of everyday life and the principle recognition of the differences between these worlds, as well as the recognition of the importance of socioeconomic factors (though actually looks

Victor Papanek to the adjacent non-economic problems). At the same time, Papanek sets educational tasks, believing that for the preparation of designers of this level it is necessary to go beyond a narrow specialization and engage in disciplines considered to be unrelated or indirectly related to design. In his opinion, the ID is not a set of skills, techniques or rules. This is a series of functions acting simultaneously, and not in a linear sequence. The ID requires an initial definition of the difficulty level of the problem. Meanwhile, such a university approach to design in fact means, if not presentation of a requirement for a designer to be a "universal person" and a philosopher, then, at any rate, makes it so (as is the case in architectural science).

The views of the "designer-designers" Papanek and Fuller (the latter, perhaps, even advantageous in this topic) unites recognition of the pernicious nature of the re-specialization of areas of knowledge and competencies leading to the artificial division of professions and, as a consequence, to the impossibility of solving complex problems (chapter "Phylogenocide" in Papanek's book "Design for the Real World"). In turn, with the position of Grigoriev's economist, the designer Papanek brings together the following from this idea the call to overcome the disunity of scientific subjects, as well as the recognition of the need for historical consideration of problems as a methodological principle (compare with Grigoriev's acknowledged approach of the so-called "American school of historical narrative" ), and the requirement of the theory's alignment with practice (with the utmost clarity the definition of the ID is set out on pages 190-191 of this book).

In the same sense, Papanek discusses the role of the designer as an intermediary in the group of project specialists who speak their professional languages and act as, in his words, as "qualification synthesists." Which is quite consistent with the concept of a project manager in Grigoriev, who speaks of a true entrepreneur as an organizer of the routine of the production process, whose role is also constructive-intermediary, and who lacks a niche in the world that is already framed in a certain system of division of labor (SRT). But who, in the framework of the considerations presented here, is not such a person, should hack into the modern money economy of the world, since the money itself, as will be discussed below, turns out to be a peculiar product of the communication format design? However, in order to create a new format, it is not just necessary to know the

"dark science" of the economy, but to know it correctly – despite almost all of its 300-year tradition. Well, Grigoriev helps us.

In the light of the arguments about the problems of interaction between rich and poor countries, economists like Easterly and Grigoriev are interested in Papanek's consideration of design problems in the context of problems of "false values": he talks about the design of really necessary and useful things that ensure survival and decent living conditions in those countries and for those groups, where the objective world has not yet been spoiled by glamor and embellishment embodied in the "design of beautiful surfaces" reduced before the production of stylistics. Willy-nilly, in fact, he reveals in detail the abstract consumption schedule of Tornquist, which Grigoriev uses, and suggests working at the level of specific social media, using the methods of project management and new approaches to education. On the other hand, his proposal to act corresponds to the principle of increasing returns, the export of qualifications and the dissemination of knowledge, which Easterly refers to.

For me, Papanek is particularly interested in his own interest in semiotic and general language issues, since I myself tend to consider the cornerstone economic phenomenon of money as a symbolic system with a peculiar functional design. In addition, from the point of view of the history of science, it may be interesting how the non-economic project idea of solving real problems of developing countries in its original form originated long before the appearance of neoeconomics; the more interesting it is to trace it in the context of economic narratives.

### **Substantial refinement of creative activity from the design position**

The accents of the concept of design and creative activity in Papanek and Grigoriev are, of course, different, although this is one concept: the first one speaks about the creation of real values based on a thoughtful analysis of the needs, shortcomings and cultural differences in their social significance as the projector's priority task (which eliminates monotonous "Design of coca-colonization"), which is derived from the education and profession of the designer, who acts as the organizer of the interdisciplinary interaction of specialists; whereas the second one speaks of the designer as the inventor of the order of the production process, considered as a "stage sausage", in abstraction

from the content of the product (although each time it is implied: it is determined by the market situation of demand and profit-making tasks, ie entrepreneurial tasks, the decision tasks of consumers for which there is a way of solving their own problems), and the designer at him is first of all an entrepreneur-organizer of people's activity under this process.

The concept of creativity in the economist-manager Grigoriev and socio-economically oriented designer Papanek differ, although they do not exclude each other. In Grigoriev, creativity is considered in the aspect of management of activity and is entirely placed in the form of project activity, whose demiurgic task is to translate the chaos of the work and experiments into the order of regularity of the debugged processes. However, it does not mention its substantive mechanisms, and it is assumed that the entrepreneur must decide voluntarily about the point of transition from one activity to another during the period of building a "managerial sausage"; we obtain a kind of "inverse bifurcation" in the control system. Papanek, referring to Arthur Koestler, speaks of creativity as a systematic search for a new way of acting in the synthesis of humor and wit, collision and the combination of unrelated or even mutually exclusive structures, as a result of which their whole is greater than the sum of parts where analogies and metaphors reign quality of working methodologies ("Design for the real world", p. 106).

### **Substantial refinement of proximity to the consumer from the design position**

It is Papanek as a designer, in the opinion of the author of these lines, reveals in detail the task set by Grigoryev as an economist to be closer to the consumer. But if Grigoriev addresses this problem primarily to the firm as a unit, and leaves this question largely problematic (how to be closer to the consumer, when solvent demand falls, and firms in the production chain may be many, the more unevenly distributed at each stage?), Then Papanek addresses this problem to the "responsible designer" as a unit that studies the real life needs of people living in completely different systems of management, in the world of special things and systems of things that form "everyday structures ti ", before their launch into the system of economic processes (which are always financial in their development, according to neoconomics). Here, the proximity to the consumer appears before the formation of the business idea, not to mention its documentary design and,

not to mention the rate of profit (in case of success it is quite high, and for the designer-demiurge who made the right bet, it is a logical and logical result of the correct choice, but not an end in itself – which is quite a Weberian-Grigoriev interpretation of the "original Protestant", doing the Case, but not chasing after money, perceiving the latter as a blessing and a reward). And this proximity is accented more for poor countries, where there are real design tasks, rather than for the rich, where the field of solutions is packed with false values.

### **Scientific and professional status of project activities**

Should design-understood project activity be scientific? In the very notion of scientific creativity there is already a contradiction: it largely implies work at the level of associative thinking and unconscious, interrupted and under-actualized processes. While for the methods of scientific search and verification, these things are tabooed at the root: some idea discovered in this way should still be "proven", spread out on the shelves of scientific references and justifications. And by and large, it is attracted to the ears (which is all the more true in the present era of "exhaustion of fundamentalism", as well as the critical redundancy of scientific content). And many scientists are making such a compromise. In this sense, the task of the entrepreneur-projector, once again, goes beyond the framework of economic science as a science of the classical era, proving to be a science of art. In part, this complements what is next discussed about the "science of criteria" and the "science of results" as the interrelated parts of the virtually unified process of the existence of the science institute of the NTP era (in the section "History of European technology and neoeconomics: to clarify the roots of the fundamental and combinatorial knowledge economies" ).

Speaking about the subject of such a science, if we take the problematic problems of Papanek's design problematic (including, among other things, he provides an extensive bibliography in his book), he develops architecture and design. Meanwhile, if we take the famous "10 books on architecture" of the early Renaissance classic Alberti, at the very beginning, the arguments about the subject of architecture show that this object incorporates what is now referred to the sphere of design, not limited to the erection of buildings and other capital constructions (design, as noted above, as well as the way Papanek and other authors define it, embraces architectural knowledge as the original objectivity). Moreover, these arguments also indicate that for Alberti, the activities of the

architect include roughly the same as today – the profession of an economist. Which is logical, since his arguments were made in the 15th century – long before the first forerunners of the economy of Bethune and Vauban (who, moreover, became one of the forerunners of urban studies), not to mention the mercantilists, Smith, Riccardo and Malthus, who already emerged on a significant wave of growth firms and the demand for an economic profession. At the time of Alberti, the architect naturally appeared, and was rightly considered, the main organizer of the economic life, especially if it was a city-state enterprise.

In this sense, it is worth noting the professional status of those who are experienced in this kind of science, as a profession in neokonomike is connected with the division of labor, its deepening and the following, in connection with them, their current issues. Negative "merit" of Max Weber, who remembers neokonomika in the sense embodies the Protestants organized person, consists in the fact that he identified business (business) and the profession. This becomes especially clear when you read theorists of "correct design". The key difference between a business and a profession – that the choice of a profession, as a flow restriction of incoming signals of the external world, or specialization, is the personal choice in the macro-process of deepening division of labor (RT), the limit leading to the reorientation and biological extinction, what warning theorists of integral design and project thinking, and what was said above. When it comes to business, there is a similar process of limiting the flow of incoming signals, but not by type of activity, and on the field problems, and without reorientation: a systematic movement to the goal, or telezis, does not exclude the designer being an expert, but without that the profession was his vocation – they are able to solve problems, transforming the world in an organized way, and also to collect and analyze information for this. The case is a solution to problems, and not a specialized kind of activity that a person is engaged in due to the natural or artificial division of labor and integration into a more or less established division of labor system (Systema Razdeleniya Truda – SRT), at the end of the initiation period in the establishment of an educational institution that also has own SRT. Meanwhile, business generally does not care about the specialty.

The relation of design and economy (taken in its non-teaching) is similar to the relation of ancient mechanics and physics, as art to outwit nature, and what is the study of nature itself, the world of the naturally created and the artificially

created world (of which P. Gaydenko's speech in the article "Christianity and the genesis of natural science" of the collection under its editorship), the 2000-year boundary between which became blurred after the scientific revolution of the XVII century. But if these sciences and art are taken as such in their differences and connections, then design is exactly the same art that should somehow replace art already existing, complementary to economic science, consistent with it and forming what was noted by J.M. Keynes as a phenomenon of the "two economies": actually coming from the political economy economy, and "financial science". The latter is, by and large, a system of applied knowledge, for which it, in fact, is being studied; those. "Financial business" is precisely the Case; not the economic science itself, but the art of outsmarting economic nature, consistent with the empirical and theoretical knowledge about it (which, for their own specificity, mostly still theoretical). And here there is one nuisance: on the one hand, finance – economic "mechanics", allowing economic "physics"; on the other hand, the most sober, to date, neoeconomic view of the economy asserts that the essence of economic processes is, first, the historical originality of state-management decisions in terms of RT and money issue, and secondly, what exactly is trade-financial communication, coupled with the deficit-free volume of the money supply circulating in the oecumene, are the main conditions for the growth of social welfare and scientific and technological development. That is, the maxims of economic art are at the core of the notion of the nature of economic science (just as in the XVII century mechanics turned out to be the core of physics, and the artificial with the natural began to be considered on general grounds). How here to be with design?

The solution, in my opinion, is that neoeconomics, after the publication of the book "Growth Epoch" by Grigoriev, video recordings of the 2nd cycle of general lectures and a series of lectures on the company's economy, is quite ready to reconsider the apparatus of applied economic instruments that accompanied the scientific apparatus for 300 years of the development of economic science – especially since, as the author's positions show, she came very close to this possibility. Explaining the nature of the world from the standpoint of acting forces and the artificially created tool, which is used naturally in the world, it is possible to offer the toolkit a new one, especially since neoeconomics goes beyond the

economic framework in the direction of integral social knowledge and general management issues.

If neoeconomics argues that the optimal way of managing in a globalized world (for "developing countries", at any rate) is the interaction of economic clusters commensurate with the scale of national economies (not even firms) that deliver the best quality products to the world market (among all potential and topical suppliers), a certain type, in demand in this market and not reproduced by anyone else on the world scale ("Danish meat and milk cluster", Japanese electronics and car whether Italian shoes and plumbing, etc.), then we are talking, first, about the discovery of the sphere of demanded project activity (in the sense of Grigoriev), and secondly, that there is a creation of a comprehensive sphere of industrial and consumer design (in the sense of Papanek), but working on a global scale, rather than a lot of specific "problem". And here, of course, the "economies of scale" work as one of the factors for increasing the yield, which, according to Grigoriev, has been considerably overdone in recent decades (20 lectures from the cycle "The Economy of a Firm"). Another factor is the speed of passage in production (see *ibid.*), where high qualification of specialists (a lower level of RT) is required, and where it is possible to consider the prospects of productive solutions. The important news about the cluster interaction of countries with the world is that this is just the case of the replacement of monoculture with a design, with the realization of products that just yields income – but not in terms of supply of goods unseen, created in a more complex CPT, and in terms of optimal solution some problem or task, like the original medical solution; and so it turns out to be an unpredictable result or something else – a question of the effect, which in this case turns out to be of secondary importance. Such interaction excludes the practice of porting the "design of the new", as it is in cases of investment and catching up types of economic development. However, in order to work out the possibilities of this kind of cluster development, it appears necessary, from a sound viewpoint, to proceed from two sides: from general managerial analysts of the world situation and opportunities, on the one hand, and from what is known as productive activity to the activities of the grassroots level, hobby "that generates a field of designer fluctuations and grows out of that special condition when a certain component or" subsystem of things "of the vital world that is not satisfied for one reason or another by the main Otok market

supply (for example, the price – from the consumer, or the value – from the manufacturer) trying to be like and optimally compensate for their own, and later commercially produce, getting from this, in addition to the possible income, the joy of improvement in a variety of activities. Alas, adhering to Weber's views on the profession, Grigoryev obliquely looks at the phenomenon of a hobby, considering it to be something of an unrealized nature in the main profession. Meanwhile, it is a way out of the main activities that is seen as a natural (even physiological) way to avoid the biologically destructive re-specialization that Fuller, Papanek write about and be more universal. Tracking this kind of activity on the whole oikoumene level allows to determine the shortage of the internal market and correlate it with the data on shortages of external demand, building the RT process more purposefully and systematically.

Further, in this sense of hobbism, in the continuation of consideration of the question of excluding re-specialization, it will be appropriate to raise the question of the urgency of the profession of an organized person. Should one person spend one lifetime on one profession? After all, the experience of one profession can supplement its alienity with a new experience, creating conditions for creativity in the Koestlerian sense. The urgency of the presence in the profession and CPT is not the subject of management for neoeconomics, but is seen as a crisis factor, or shock factor. But it is such that management is possible, based on the goal of re-specialization. Actually, the question of the urgency of the profession is the question of project work, but set at a larger time scale than was said about projects by neoeconomics (and not only by it) as business, administrative or artistic projects for the most part performed by one person or a group of individuals with constant urgency, expediency, certainty and, so to speak, narrative (or narrative security, in the neoconscious sense of this concept). When it comes to the profession as a project, the extension of the scope of the design review is directed towards the issue of transhistorical continuity (referred to below in the corresponding section) and, further, towards the universal scenario (in the fuller sense) as the telezise (in the above papanet sense) of any project activity. That is, the profession must have the properties of the meaningfulness of its employment, regularity and finiteness. Although the latter, of course, is not an imperative, based on necessity, but a postulate of opportunity, for the question of the managed (extra-shorter) urgency of the profession is the question of the

adaptive flexibility of the division of labor systems and the overcoming of class or caste segregation in society. No more and no less. Man is a creature, both creative and universal, and professional specialization can only be urgent (just as a person is urgent in his life), and therefore always a projected and assuming switching to other activity spheres, on some or other grounds for organizing such a switch, which must always be social. Such a systemic switching is all the more interesting in its capabilities when it is implemented on a sufficiently in-depth CPT (especially the global one – which, in the framework of everything reported here, is one of the most urgent problems of the beginning of the 21st century). The question about the change of professional activity within the framework of the project is nothing else than the rotation of the expert used in the discussion and activity methodology of Team Synergy Stafford Beer, created as the order of interaction of expert managers in the hexagonal "opsroom", which is discussed below in the section "History emergence and implementation of situational centers ". In turn, it is in connection with the history of the Beer project that it should be said that the profession of the ruler (country or territory) is also urgent, in this connection, in its best expression, is of a project nature.

### **The designer in the economic process in the aspect of PTM**

Now the question is whether it is possible to configure a highly skilled designer working at speed of passage, for the target demand (and not for "all markets of the world", which are in the largest representation, the US market)? Of course, such a demand will, taking into account global communications, work on a global scale, but it will always be highly customized. And, of course, somehow the factor of interaction between developed and developing countries should be overcome, taking into account the hierarchy of Tornquist's profitability. The fact is that this dependence is regarded as linear, and the growth of income is gradual. But was such growth gradual, linear, always? He was hardly such in the experiment of J. Lowe and the era of "Dutch tulips", and hardly, when in Europe, ser. In the 19th century, big money appeared and the middle class. In this sense, it is precisely the case of a financial invention or "strange coincidences" in the history of capitalism, and not the "natural course of things". The actions of the projector should be understood with respect to the design money understood, as well as the fact that in these actions it is expansive problematically, but not absolutely. Expansion for him is not an end in itself. In the same sense, the designer is not a trader (or, in a

softer form, "not quite a trader"): although trade is not excluded for him, it is always secondary, investigative, "first-protestant." In any case, the project thinker, which Papanek is talking about, is an agent of a specially structured real sector of the economy, but not quite the one that Grigoriev is talking about. It is likely that the subject-technological set (Predmetno-Technologicheskoe Mnojestvo – PTM) will be reproduced in a particular way, not money in itself, although the very thesis that the PTM is reproduced without money, being taken unconditionally, contradicts one of the key provisions of neoeconomics, and being taken with the proviso that money itself represents a part of the PTM as an integrity, can be deployed in a very fruitful way. And, maybe, this PTM is even multiplied in some way. Indeed, once invested with the return to the industry of money (with a special history of the financial sector at the time, by the way) created a world of technological solutions, the PTM, whose large-scale product was widely sold. However, today the tasks of using PTM relative to the nature of demand are different, redefined and named by its key user and creator in the current conditions – it now refers to the speed of passage and higher qualifications (by reducing the RT level on a scale) – which, apparently, is also proposed in scale, and therefore, in general, assumes a different configuration of management activities, rather than a deepening of the RT. But the most important thing here, linking the past with the future: money and financial instruments are themselves a subset of the PTM, along with libraries and other means of symbolic operation. So, they can be redefined in their significance on a more general basis.

In this sign-symbolic sense, it is important to take into account that design is mediation: every design act is primarily an intermediary, and therefore already hermetic. The principles of simplicity of solution, the minimum cost of innovation and the achievement of less are the principles of optimal mediation both of man and the world, and of people within the society. In this case, the means for design are inside the same environment, built up by its own internal mediation. Here the question relates to how much and at what levels this process is spontaneous – that is how spontaneously the formation of historical MWMs (despite the fact that design is both creative activity on the borders of objects and trends, and orderly activities to achieve a specific goal), and how general some PTM on a territorially defined oikumene can be created purposefully and systematically,

taking into account the target indicators – but not absolute, but comparative. For what is compared (as was the case with catching up development), emerged spontaneously (whatever the supporters of economic orthodoxy say), and therefore – with private goals that accompany the natural economic process, but do not determine it. Absolute targets can be determined only on the basis of research of their own specific problems and problems arising from them, on the basis of the principle of their initiative targeted search. The search for an answer to this question will be a macroeconomic review of the project activity.

From the neoconomics course it is known that the most rapid development of the PTM receives under the influence of the inflow of a large amount of money supply, produced by the work of a certain, historically known, wave of demand. Now the task is to try to look at this process of forming a PTM as a project where money, although it plays a key and even the main role, is only a specific part of the developing object-technological environment (of course, not as a mass, but as an invention) as a medium, there is something more than an abstract set – something integral and organic.

### **Money: language and technology**

If money, according to neoconomics, is the source of the generation of technology, as well as the well-known in the history of industrial progress, then are they themselves: what is technology or not? Here, like the question of the "primacy of a hen and an egg": according to neoconomics, the development of technologies is generated by monetary instruments, but the money itself is not otherwise than the management technology generated by the state, for which the primary technology is a weapon ("bulat"), and the primary source of the mode of action – nomadism, in the system of which technology proper is created and improved (S.Nefedov and its consequences). But after all, money in a certain sense is the next generation of nomadism, because if we follow the "warehouse" or "token-distributive" concept of money developed within the "neoeconomy" of O.Grigoryev, they are an instrument of trade gradually spreading through the ecumene and serving the interests of those who are more or less far from the sovereign of the "first basin" and are not attached to the place. Be that as it may, in the dispute between "gold" and "bulat" (damask steel), bulat is primary, especially if we take into account the relative role of precious metals as just a means of protecting against a forgery of a money-warehouse counter. Actually,

money, "bulat" and religion (Islam is the most vivid example for religion created by a trader for traders), perhaps, form the key technologies, or instruments, of power derived from the organized and relatively massive movement of a person in space.

If we proceed from the semantic understanding of the nature of money, that is, from the concept of them as a semiotic system with a single sign and the most powerful of its polysemy (which allows one to conduct a monetary conversation in the language of quantities and abstract mathematical expressions, linking the world of material things to the world of mathematical abstractions; In this sense, Grigoryev's assertion that the technologies of the NTP epoch are the result of the specific work of the financial sector is true, and not the other way around – as it is commonly believed), in which all possible expressions of labor are included, then in this case there is reason to argue with him that the basis of science and the flowering of civilization lie precisely money as an economic reality historically tied to the mines of precious metals, and not actually a philosophy or another form of general ideas (defend honor uniform, but, I believe, is not groundless); although, of course, I admit that in the conditions of the science of the NTP epoch there are specific financial relations – in particular, firms as a deviation of trading activity. First of all, in this sense, money already has some general representation – a specific semiotic mapping of what from the beginning of the New Time corresponds to the general concept of a function – in this case, the "inverse function": the domain of definition with a set of elements corresponds to not one element in the range of values, but on the contrary, one element from the domain of definition corresponds to a set of values. In a sense, the one or those who invented the money (within the "token-distributive" hypothesis – as a means of solving the problem of conditional "accounting records") were, so to speak, universal operators, applied to the order of social being; that is, in a sense, philosophers. Further, the considered, degenerate, language of money is only a kind of language in general, which in no way is more powerful by the variability and expressiveness of the natural language and seems to be an artificial language of specific game facilities (like Go game, only in it there are not one but the whole two game facilities, plus a game field); so, the simplifying format of management, based on it, in case of failures can be corrected by a more powerful language system (according to metatheorems on the limitations of formalisms).

It is also important that the "ancient argument" Grigoriev (that the silver mines were the main condition of the Greek civilization), we can add the argument that, in fact, one of the pioneers of ancient philosophy, Thales was in fact almost the first a well-known economist of that era, with his butter-blowing suits like a worn-out nose to amateurs to talk about the impracticality of philosophy. The latter is especially important not only in terms of understanding the principle of buying the current demand for demand, tied to the knowledge of resource-economic cycles, but also in the sense that it was done in a similar way, according to the Quigley-Australian principle from the film of the same name: "I For a long time I did not take the Kolt's revolver, but did not say that I can not use it "; as for the "merchant and traveler" (which was at that time one occupation), for Thales such an operation could be among the usual particulars. This philosophical legend reinforces the first two points about the original particular of money as a sign system. And, of course, this idea of money still needs to be considered as a trading functor working on the difference of economic potentials. However, it is hardly worth mentioning that the influence of the silver mines of Greece on the formation of ancient philosophy is monocausal.

So, money can be viewed as a monosymbol character system with the inverse type of function, fulfilling the role of a social mediator between the world of things and the world of numerical (mathematical) expressions.

Taking an inverted and naturalized form of money, it is possible to build conditional constructions and check their performance, turning out the neoeconomic idea of money inside out (there is a benefit, from which to repulse). The inverted form is not only currencies or currency groups operating within separate closed markets or even categories of goods, but naturalized – not just barter or coupons. It is not excluded that a monetary monster of this kind is capable of restarting the economic system in conditions when the fixity of the markets on one currency or group of currencies leads to a deadlock. Even if the set of concrete realizations of this monster does not work, the fantasies of a combinatorial game with a semiotic function of money are important for the most flexible search for communication options for management systems – a kind of model stand for brainstorming.

That is, talking about technology, it turns out necessary to talk about technology generation technologies. And, unlike what is today understood to be meta-technologies, as those that exclude competition from themselves, one should speak in the literal sense of the word – what determines their appearance. Arms, Religion and Money are able to act not just by themselves, but, perhaps, in a certain synthesis. Most likely, we hardly understand till now the real meaning of the generative possibilities of these meta-instruments, at least of money – for sure. It seems that when we use them, we as humans use it ridiculously, creating centuries-old distortions and social ills, fraught with social shocks, as if we lost the notion of the true strength of a monetary instrument as a blessing, inventing though working, but inert forms of it. We are as if stagnant in using these factors of social organization in nature, and those who are individually skilled in them are not considered in the necessary general light. But if we put weapons and religion next to money, and money contributes to the division of labor, then do the other two funds do the same? Religion – in the sense that it creates castes and legitimizes them. And weapons? Is not it a typology of its application? I dedicated a separate narrative in the same work "The History of European Technology and Neoconomy ..." to the way in which religious and weaponry embodied for the purposes and forms of science of the NTP era, and more detailed about the links between scientific and religious forms of world perception is well described in the collection of articles "Filosofsko -religious sources of science "ed. P. Gaydenko [1].

### **Money as a design of communication environment**

So, if, as it turns out, money is a monosymbolic symbolic system with an inverse semantic function as a function of interpreting a polyecum of economic ecumens in the aspect of labor input, and the task of money is translating the differences of the real world into a world of mathematical abstractions in the status of resources, then there is important news about artificial languages (one of which is money): they are not just model reductions of natural languages or a means of describing gaming tools (or even these tools themselves), but intermediaries between languages are more th power, whether natural or artificial. It also turns out that, just as a firm within the framework of a non-economic conversation turns out to be a historically conditioned deviation of trading activity, money itself as the basis of trading activity is completely a deviation or a reduction of natural-communicative activity. Perhaps the deviance of money is also due to specific

historical reasons. This is so, if we consider them as a product of semantic design, created to express labor costs, aimed at the organization of natural.

What gives a semantic understanding of the nature of money? Such an understanding disconcerts them. Consideration of money in a semantic aspect allows you to experiment with alternative versions of their functional design (not only at the level of mental experiments) without fear of ostracism for "unprofessionalism" on the part of economic schools and concepts of all kinds of orthodoxy. If money is an invention that is in a sense obsolete and ceases to work, and on a planetary scale, then why not make changes in the design if its essential type is known? It is in this sense that variations are permissible, considered without regard to specific concepts of money.

Money embodies the ancient maximum. In the neoeconomic sense, and in the sense of their understanding as a product of design, the language of money embodies the ancient maxim that man is the measure of all things: that they exist and that they do not exist. For money relates the final active time of a person (which, incidentally, is a resource that is not renewable to the "soul of the population") with the product resource produced during this time, to which demand is expected, which determines the measure of its marketability. The scale and time of the passage determine the profitability in neoeconomy with respect to the division of labor (Razdeleniye Truda – RT), but it is the project factor or, as it turns out, the design factor (the degree of conscientiousness of the projector) that determines the possibility of demand for fundamentally different (that is emphasized by neoeconomics) economic systems, or measure existence of commodity-expressed things. However, this factor is noneconomic (in a softer form – "to a certain extent, noneconomic") because of the fuller principle of make sense vs make money. This is also pointed out by Papanek in his book.

The meaning of money is in the expansion of rational development of resource ecumenes by the socium, increasingly growing demographically and integratively, while historically money is the main social integrator, since it is assumed for any recipient of resources from a warehouse presenting a money symbol, which warehouse accountants are not required to know, except as , who is somehow involved in the oecumene of the currency's circulation. But this means that the monetary system is initially limited by the tasks and conditions of its expedient

application, and the generalized application leads to social and economic anomalies. Where there is no task of expansion, either what Grigoriev calls a closed market (ZR is the place where the financial sector was once, but then disappeared, and now there exists a turnover of a non-multiplied amount of money supply serving the "real" markets), or the extra-monetary design of the medium is what is called a reproduction contour (Vosproizvodstvenniy Contur – VC) within the framework of neoeconomics and is not treated differently as an idealized model state in the current historical conditions (without clarifying the details of expedient work with the resource environment other than means of the Tornquist function).

Thus, money in a closed market exists as part of the urban environment, working primarily (if not always) for internal exchange. Yes, we can not disagree with the fact that in the ZR the money was left from the financial sector, which "once was there and disappeared"; but, by the way, why not consider another situation, when such money was left from a more developed state, of which there was once an oecumene of the given RT? So, after neoeconomics, to recognize the state as the primary source of money distribution (their main issuer and legal owner is "normal") and look at historical examples of the existence of the ZR, as well as splinters of great empires, where such ZRs may arise due to the sealing of economic activity (like feudalizing Russians principalities or Italian city-states), it turns out that a closed market can arise due to the narrowing or fragmentation of the territory of circulation of a certain currency. That is, it is about treating money as a pure artifact of management technology in some form that has come from some, more or less ancient times.

It is important to remember that money, being a key condition for deepening the division of labor in a system of capitalist economy, is not just a specializing but a key re-specializing factor in a colloidal social organism. And since money is always a "serious matter", they exclude humor as a factor of special flexibility of this organism (in macro-thinking – "carnival"), as a universalizing factor. Being one of the conditions of creativity, humor is also a factor of action in conditions of contact and border crossing, and specialization is action within them; its principle is "do your work and do not go into someone else's". However, as one doctor of science said, "a philosopher is one who cares about everything". Re-specialization and fake specialization in social macroscales is, first of all, a consequence of the

multiplication of money; being designed for an infinite deepening, this process buried itself at the limit of the idiocy of its continuation, and therefore focused on fakes: the massification of luxury, false values and the transformation of design into stylistics, into the game of sexualised surfaces, replacing the real creative borderline with the ersatz effect. In the end, the whole process led to inflation and bursting of bubbles and a liquidity shortage. For money has very clearly defined the limits of its instrumentality by the trade and financial process, severely detached from their own consumer function: beginning probably with the industrial revolution, the instrumental status of consumer money has gradually decreased, and since the era of integrated marketing communications has almost completely come to naught. Otherwise, in this era, there would not be any sort of thrash projects like "the spread of financial literacy".

On the other hand, neo-economy itself says that it is money that is the means of overcoming the boundaries of economic systems, and in this sense they act as a humor factor, but at the level of the individual: by universalizing the society by types of activity, they increase its specialization. Given the fact that Grigoriev spoke about the favorable nature of the cluster path of development in the era of countries' intrinsic integration into the global division of labor system, as well as the decrease in the degree of RT in terms of speed of passage and economies of scale as trends, the opposite situation is obtained. One gets the impression that it will be necessary to talk about money that will work in the conditions of universalization of the individual and raising the level of global specialization of the society. But the global specialization of society is a special management decision – a project choice that compensates for the negative impact of reducing the regional level of the RT, while preserving universal specialists with a decent income.

This situation is interesting, and requires a separate description.

Similar to the equalization of the whole nature in the monosymbolic semantics of money, the process occurred in its time in the science of the XVII century: V.N. Katasonov (p. 174 Gaidenko's collection – see above), speaking of the dependence of the New European science on the Protestant worldview, writes about the need for reduction the qualitative diversity of nature to the idea of a homogeneous matter that has only primary qualities:

*«the fundamental moment for the new physics was the idea of absolutely passive matter. This matter does not possess any qualitatively defined internal nature, which would have its internal source of motion. The matter was to be characterized only by its geometric shape, size and impermeability. This teaching was polemically directed against the Aristotelian understanding of "natures," the qualitative determinateness of matter, which was the cornerstone of Stagirite's physics and inhibited the mathematization of this science. The movement and its laws, according to the new concept of mechanics, were "nested" by God in this passive matter from the outside. Aristotle's organic understanding of the movement was replaced by a mechanical, based on the intuition of an absolutely passive matter: the bodies retain a state of rectilinear uniform motion, and it can be changed only by impact».*

He talks about the paradigm content of science, but not about the fact that such a means of reducing nature to "abstract" matter, embodied in reality, has become money. But since abstract matter, understood as genuine, could not be more than speculative, its real embodiment could not be more than an artificial-signification. Scientists of the XVII century, doing their empirical, consciously or not, contributed to this process of "financing" the world – turning it into a sum of countable and tradable resources. But to begin with, this cybernetic diversity of the world, manifested in the observed activity of matter (undefined at the time, and therefore considered to be disordered), had to be reduced on a conceptual level, making it totally understandable for working with it: displacing life in the field of "the omnipotence of God, but already as one more scientific abstraction, like the classification section "other". At the same time, ironically, the Aristotelian "nature" themselves have not disappeared: the reduced matter has now become the "matter of the matter," however, because every Protestant self-limitation of sensory-cognitive impulses coming from outside has been its own every time, according to the principle "I know its business and does not climb into someone else's ", every time the very reduction of nature-matter to boreland-matter was not universally valid, but specifically-objective, that is, model. The universal, and at the same time extremely abstract, boreland-matter, connecting the "people of the matter" among themselves, and thereby realizing the absolute communicative value (for other communicative values were rigidly suppressed by "organized" Protestants as uncontrollable), was an artificial-linguistic, reduction-symbolic , the matter of money. And this communicative point was connected in the linguistic sense with a more meaningful apparatus of the mathematical world abstracting – essentially substantive, but not communicative, where the general is

acquired as a predicable conditionality (in the mode "let's assume that..."), and not as a result of the process of mutual agreement and adaptation.

In connection with all this, the question arises: did the money of the epoch of capitalism, the scientific and technological progress and the industrial revolution be money in the same social and functional-administrative status as the money (mostly modeled in historical retrospect) of the era of the classical Khaldun empires of the Ancient East? That is, of course, in the general sense, as an alternative (or, in order not to offend anyone – an additional one) to the legal one, the dominant means of managing social processes is the same administrative tool produced by the state and servicing trade. However, in the Khaldunian empires there was neither the industrial revolution that arose on the wave of demand (as Grigoriev explained it) nor the ingenious God-seeking and God-negative conceptualizations of mathematized natural science, which became key factors in generating revenues and profits for centuries. Moreover, if capitalism, as neoconomics says, is the result of a strange combination of circumstances that gave rise to the phenomenon of the firm as a deviation of trading activity, why not consider the hypothesis of the deviance of the monetary system itself, since it originated in such distorted conditions? Narrowing this extremely broad question: was there a fundamental difference in the semantic design of money in the era of the Chaldun empires and the money of the era of capitalism? As part of this explanation – the question of whether the "ancient imperial" money was the same tool for the mathematical reductions of the world, and if so, to what extent?

### **Money in the aspect of the aggregate representation of neoconomics about the history of their origin**

The neoconomics hypothesis about the "archetypal" emergence of ancient money is due to the fact that merchants originate from the administrative environment of the sovereigns, especially those who were allocated for procurement and supplies purchased for the "protosclad" (for example, the territorial empires of the Ancient East). A merchant's "vein" arises when they, having received a certain amount for purchases, begin to look for goods at the lowest prices (the cheapest market), buy it, and store the saved money difference in their pocket (by instrumentally launching them further into the trade turnover). According to another neo-economic hypothesis, the initial prices for goods, before the market

was formed, are determined spontaneously, after which prices are dynamically aligned with the market. Here the question of initially allocated "purchasers" from the state treasury is obvious – the equivalent of starting capital or initial credit, especially when there is no market and the prices for the goods are unknown. This is especially important in the case of metal-bearing coins, whose historical reality as a factor in the economic growth of ancient oecumene is recognized by neoconomics; it also recognizes the historically confirmed right of ownership of the imperial state to merchant's money, which, in case of need, it invariably presents this right, using for the withdrawal the used tools. On the other hand, for the case of capitalism in neoconomics, it is recognized not just the receipt of money by merchant-traders as a salary commission, as "economic orthodoxy" considers (15 lecture 1 part of the course "Economics of the firm"), namely, that the profits according to the M-P-M', using a variety of tricks like multipliers, partial redundancy, double-entry bookkeeping, a rejection of "cash" and free emission. The historical beginning in its framework recognizes the gradual emergence in Europe, since the 12th century, of merchants from the empires of the East who view the new ecumene as a field of political de-legitimation and appropriation of the available means in which Europe so much needed. Meanwhile, since these were nevertheless quite specific money, it would be logical to try and create ways of their purely intra-trading multiplication as mechanisms for such legitimization – the methods of "legitimate additions" used in the new conditions. The formation of the monetary system in the aspect of this motivation was not considered in neoconomics, and represents the subject of a separate clarification.

If we consider the matter in this way, then, regardless of whether the money of antiquity was the means of the mathematical reductions of the world or not, using the account-calculation-calculation, the merchant's mathematics of those years included this world in economic accounting, but not by multiplication. In addition, in the framework of neoconomics this is noted (18 lecture 1 part of the course "Economics of the firm"), the Ancient East did not know the manufactories – and hence the forms providing them and the standards of scientific character. As it is acknowledged that he did not know the international trade of manufactured goods, for which these forms and standards are also needed as the basis of the subject-technological set (PTM) for large-scale production (for the

role of standards for the formation of PTM, see the section "History of European Technology and neoeconomics: to clarify the roots of the fundamental and combinatorial economies of knowledge "). Meanwhile, the noted tricks of the capitalist era (the list of which is far from complete) is a special kind of activity for multiplying the number of units (or rather, the "number of zeros near unity") of the monosymbolic signifier, which invariably and rightfully became "conventional units" and were regarded as a true trade and financial toolkit, ensuring, so to speak, the division of labor into "futures" tasks (in contrast to the protagonist-managerial division of labor under "immediate" tasks). And if so, the final stage in the legitimization of money was to be the step of their justification as a factor of public good and the fact of their appearance; on the other hand, a more realistic basis for such justification is the desire to circumvent the institutional trap of the state status of money (and the state right to them) for countries where money originated in a merchant's casket either "out of nowhere" or from the merchant itself. And this is possible only if the volume of the signified volume corresponds to a certain volume of the signified. Since there are no actual goods or services that have been taken into account or taken into account in the plan, new formats for multiplying the world and the basis for expansion from ecumene to new regions and spheres are emerging: venture investment arises and, at the same time, the nature of insurance essentially changes (meaning, of course, insurance transactions). This includes innovation and industrial enterprises. In order to multiply, the new signifier would also correspond to the multiplied world.

All this does not contradict the concept of the labor expression of the price of money, and even confirms it, because it is now clear that it is precisely in its symbolic nature that money deepens the division of labor: they create and legitimize new spheres of potential consumption, and hence new foundations of activity with a single the goal of the latter in the framework of the work of capitalist finance: to produce – reproduce – expand reproduction, according to the principle of "money to money", considered by Grigoriev as a fundamental economic law, and not just as practical wisdom. Produced with minimal costs (which, first of all, labor costs), the new must be consumed by effective demand, and this newest as a market is produced in two ways: in the territorial and category novelty of the nomenclature. As for the former, the classical narrative on the planetary expansion of capitalism is quite working here in search of new

markets, and as for the second, here we must speak of "novelties" that initially arise in the saturated economic products of the economic metropolis, which are subsequently distributed to less rigid and competitive territorial markets of "economic provinces". In this case it is important to understand that, given the "multiplying" prerequisites, it is not just about luxury markets. So, we need to talk about possible ways of generating demand (including demand for false values), not only according to the scheme "from the top of the social pyramid down", for which the cotton wave of demand in England, which initiated the Industrial Revolution, was launched. In other words, at least not all of the "lotions for a healthy life" in the consumer society came down from the "luxury", but were the result of the system of "tricks" of capitalist finance, pushing and spilling out of them as from a cornucopia. So, with respect to these conditions, the linear nature of the Tornquist consumption function should be revised, at which "luxury" appears only at a certain stage in the development of the "income/consumption" ratios.

In the same scheme of augmented and, at the same time, reduced in money, the world must somehow fit in and alienate knowledge from the worker in the capitalist production system, and the contribution of the merchant interested in ensuring that the bank provides his money with work, and not only protected thesaurus. And they fit there.

### **Separate speculation about the alternative semantics of monetary technology**

As some of the other observational ones, I believe that capitalism was not a necessary phenomenon in the new world history, but I also believe that explaining its origin by the oxymoric expression "random regularity" is not entirely justified precisely because of this oxymorism. Regularity is a generally valid relation of cause-and-effect conditioning, the quantifier of which runs through the conditions of occurrence, and the randomness here is the conjunction of the possibility of capitalism and its denial. So the expression "random patterns" in its positive meaning is nothing but a fluctuation of the world historical process.

I myself am inclined, supported by the Hegelian transition of "quantitative changes to qualitative changes" – to please those who are inclined to see in Hegel an unsurpassed peak (and at the same time, the end) of classical philosophical deployment – to speak about dialectics of Aristotelian matter and form, that

other forms at certain powers of materiality are effects of such an order that they go beyond the possibilities of the formal-material dialectics of linguistic means.

Here the question concerns the critical mass of social action multiplied by the critical mass of natural conditions. Perhaps the talk about "random patterns" is an attempt to avoid rigorous determinism and honestly say that the "coincidence" that led to the emergence of what we have today is a consequence of the organics of the world that are not yet understood.

As a driving force, a kind of "energy Qi" public "inner world" neoconomy proclaims money, driving social activity. Long before getting acquainted with this theory (years for 5 or 6), I somehow suggested the hypothesis consonant with it that money is the regalia of relative power – just as the crown (+ scepter + power) is the regalia of absolute power or power as such, and therefore not multiplied by emitting, which is why they are unique. In contrast to money, which is just multiplied and its "regularity" historically can be tied to "monetary material" (precious metal or security paper) solely for the purpose of protection against forgery. And since in this multiplicity they are like signs, and there are signs, from this my interest in the semiotic nature of money arose. Of course, at the time, I did not know anything about their "chip-distributive" concept, which is a part of O. Grigoriev's money concept (my own, "regally-semiotic," interpretation of the nature of money, as a whole, does not contradict the "token-distributive" concept).

Taking into account what is known about money in the framework of the neo-economic theory, it turns out that the semiosis of money circulating in the society, inflationary and multiplicatively created, primarily (in any case, primarily in time) exists within the framework of logistical processes, more precisely, transport and logistics. In the same sense, combinations of marked interpretations make it possible that money can act as regalia of relative power, not only in terms of their quantitative relativity, but also in qualitative, namely, in terms of their target ability to be exchanged for goods (primarily commodity), with the right the benefactor to become the possessor of relative regalia, the number of which is determined by the social system of the market that gradually develops around this kind of goods (in which is expressed some kind of natural, self-governing, social principle of justice delegating relative authority). Whereas

regalia of absolute power are peculiar to their non-exchangeability: transferring them to another person on the rights of possession simultaneously means abandoning possession of all signified, connected with them as signifier. In the physiocratic sense, such a signified regalia of absolute power is the land, or the territory to which the power extends.

It is therefore not possible to trade "half of the kingdom for a horse" if these half-kingdoms have their own "crown", and "horse" is an accessory or part of this "half-kingdom". It is a different matter if there is a situation when this figurative "horse" does not represent it, although it was created (born and raised) in this kingdom. The kingdom itself is a zone of difference in the densities of money transactions, the densest part of which in certain historical periods (the initial ones) fulfill the absolute power regalia (the very power of the owner of such regalia is not necessarily absolute, and may be urgent in the case of an elected monarchy).

In other words, power is given to those who give benefits, relative power is given to relative goods (or values), and over time, in a society where relative power begins to dominate, there is a denial of absolute power and a rejection of the presumption of the existence of absolute goods or values - aristocracy, absolute monarchy and religious dogma. Absolute power itself assumes itself as the source of any possible benefits, acquiring the value of the absolute good existing in society; subsequently, the absolute good is inverted and alienated, transforming the source of power consistently from the primary allocator of duties to the preferential resource allocator and, further, to the preferential distributor of the "semantic substitute" of resources using "money" as the primary means of counterfeiting protection. All these distributions are so densely combined in history that it is almost impossible to single out their historical sequence – rather, this is a logical sequence. And logical – if we consider that the significance of the division of labor in the economic contour is higher than the significance of the available resources in it.

The most interesting thing begins when management in the zone of high transaction density of relative money begins to take place without the use of absolute regalia. The memory of the fact that the "relative" is an emanation of the "absolute" begins to get out, and the trade sector begins to impose political

rights. Then the laws of the existence of money, closest to the distributive warehouse and giving the greatest and primary advantage to their owners, begin to act. The warehouse itself, now turning out to be the resource base of the market, turns into a system of warehouses and markets, being managed by the freeze market of money and derivative rights to assets (as well as derived from derivatives, at any rate, the trade and financial sector developing its own self-awareness). It is no coincidence that the exchanges are located in major trading and metropolitan centers. There are not just purchases and sales, but it is precisely the management of money and the resources exchanged, and to a large extent, before and in addition to such exchange. And in this sense, today, the authentic trade (which is the essence of the activity of the financial sector) is minimized (or reduced to an electronic format), since the latter invariably assumes a transport-logistic component in its composition (without which the concept of the price difference of the goods loses its economic content). In this sense, stock currency speculation is nothing else than money handling, in which the transport component of their semiosis is reduced.

But what does all this mean in a concrete manifestation? This means that in speculative stock money, interest, like a fee for a coin, is also speculative. Not to mention the fact, mentioned, that the management of money in the centers of the highest transaction density is out-of-stock (or extra-resource), in the main. The fact that most goods are sold in such centers in the sense of their exchange for real sector money should not be embarrassed: where should they be, if not in the warehouses and showcases of the "shopping center" already brought to where there is the most solvent consumer demand? Here we are talking about the money itself. And what is important here is that the money itself, the less they are located, the more they have the properties of the regalia of absolute power in different currency-exchange and quantitative terms, or they acquire these properties from time to time (conditionally speaking, in the most dense financial space, monetary volumes gnaw each other like spiders in a bank and, as such, exhibit non-quantitative characteristics). This is exactly what corresponds to the concept of capitalization, only in the opposite sense: institutional-stock inflation of the price to a firm or an entrepreneur (the well-known expression "the manager sells not only as himself"), when a bunch of factors, apart from available money, is the basis for investments (for example, purchase of shares).

However, since in most cases these factors are accidental, the very concept of capitalization is fictitious (which in itself has not been news for a long time). During the First Industrial Revolution (or even shortly before it), capitalization could only be at the "crown", spent on luxury and war. It is not by chance that the notion of an "economic bubble" is next to the concept of capitalization, which sooner or later bursts with the same speculative fiction.

Whatever it was, but money, no matter what interpretation is taken, is the technology of power (although they themselves, like the cornucopia, generate all other industrial technologies through the social system). In what general case do they acquire the systematic nature of the capitalist mode of operation? The circumstances of the coincidence of the discovery of American gold in the fifteenth century and its later delay in England, the emergence of Protestantism, the spread of cotton and the ensuing industrial revolution (supplemented with coal and mechanical clocks) are known. What kind of imbalance still needs to be talked about, except about what arises from the interaction of economies with different systems of division of labor? Perhaps it should be about the inconsistency of the new amount of funds that is being imported from the outside, to the actual amount of money in the initially closed market and the transport and logistics system that exists on it. On the other hand, it is permissible to assume that the volume of emitted or multiplying money does not correspond to the existing level of the division of labor, which is caused by or is not conditioned by the tasks of such division. It is in this sense that it is worth returning to the notion of money as a "technology-generating technology".

Perhaps the key problem of the modern world is the already widely held assertion that the era of money has ended – in any case, within the framework of the well-known 600 years of their functioning. And not so much even in Europe, where they appeared in the 12th century, and not in the "first world" as a whole. It ended ontologically, in the sense of the emergence of the naive communist idea of a "cashless but developed society," only for another reason – the achievement of humanity's limits of growth and the transition of the Malthusian cyclicity to the global level. And, of course, the first doubt – about whether such a society is capable of being developed (within the framework of the currently known economic model – can not, unless, of course, we consider various projects of conscious management of the number of planetary populations of varying

degrees of delusions, and also virtuoso his enlightening logicity of remarks such as V.Easterley's arguments, disavowing such delusions). Another question, what's next: how much of this cycle is capable of repeating within the existing system (doubts are also serious in this regard), or should humanity restart again, returning to dispersal in the space of the planet, or is something else qualitatively waiting for us? And, if we talk about the inadequacy of money, then they became such as a management technology, that is, inevitably information technology, which they always were. Of course, the very idea of such exhaustion is wild and insane – it's like saying about the moral obsolescence of plates with spoons and not offer instead of at least plates with chopsticks. Of course, instead of money, legislative rules could be proposed, but the problem is that the world of people has become very complicated, and that, in any case, the legal system of managing society as well as money, if it can be preserved, it must turn into something radically different from what has been known so far. Modern systems of incorporation and codification of law are able to match the capacities of transactions of the society only insofar as the latter is equipped with technological means of control (including adequate capacity of control points). Of course, these technologies exist, they are developing and are being actively introduced, as well as the means for analyzing them ("big data"), but here their future fate depends on all the same money: it may be that control technologies that are oriented toward a legal paradigm of management, today can become almost the only reason to preserve the financial system as a management tool (first of all, the state). If so, then the way of forming the financial sector as a sphere of circulating "money in free float", oriented now to meet the purely state needs – at first, to satisfy private needs – in the future, and ... stop! And will this be a "trade and financial" sector, formed on the basis of the model "from the state to the private one", if we are talking about the distribution of control means to enforce the law? On what legal grounds will be distributed and used "means of control" created for resource and distribution funds, albeit for the needs of the state? And where will they spread later? Autopoetically increasing our own cyber-reality, doubling the reality of nature, as it is in some anti-utopias? Well, where is the "economic subject of historical action" himself, the person that is (not to mention even the admissibility of such an autopoiesis – let's say that is possible)? There will hardly be anything more than a closed market of "legal support", where the camcorder and social analytics will coexist with a police baton and, say, a

guillotine. So the problem of obsolescence of technology, or art, money (which is invariably the art of "growing money") is still preserved.

Is it possible, under such conditions, to talk about the logic or regularity of the transition to some other state, or is it "not again, but again" there must be a fluctuation that generates something new? First of all, the money should cease to be the regalia of power: neither status, nor relative, nor cormorantly-adherent. Of course, because of their origin, they are unlikely to completely cease to be so – this means the loss of the prescribed obligation to exchange for real benefits, as a monetary meaning arising from the nature of power. But all the same, this means changing the principles of money as a language of "means of providing opportunities for economic action." It is possible that this social transaction of providing opportunities will be non-monetary; while the principle of justice requires its hedging, that is, reciprocity.

This kind of non-monetary reciprocity inevitably leads to the topic of cooperative cooperation, so the main issue here is the ability of cooperative forms of management to work with economies of scale – just as it is in the case of a developed capitalist financial sector (the latter is important as a starting point, so that the new form is not the next model of immersion in the archaic). If an alternative to the existing monetary system is formed here (which certainly must also become a monetary system), then its nature should be joint-stock, rather than state-distributive. In this model, money "tokens" – shares received in exchange for a "community" contribution to the warehouse, considered as a voluntary and feasible tax – on the one hand and, at the same time, voluntary and feasible investment – on the other. But this form of money (which is no longer the regalia of power) is preceded by one requirement: to be non-profit (non-financial) and, at the same time, to work for mass demand, providing those same scale effects. If the nonfinancial nature in the sense of the cooperative is clear, then in what sense is the token-share able to work for mass demand? Probably, in the case of mass cooperation. But what is this? Is such a system sustainable?

Money has been and remains a means of expansion and concentration. Subsequently, they were virtualized to facilitate the calculations of the financial sector and became more democratic, expanding the consumer mode of existence, but still their instrumental, trade and financial function remained the same. All

the same today's issue – how to save the distribution token, removing the regalia and profit. It is precisely this function of money that I assume to be the working hypothesis of their existence as an instrument of a cooperative society. At the same time, a certain, nonfinancial, life environment should be assumed as the general background. This environment, if we talk about its healthy state, spatial content, should (ideally, of course) in this case be supported by some special way of social and natural interaction, which allows for economic growth and development, but does not necessarily require it. This way must somehow touch on the order of using the forces of nature and assume their use in an organized and unorganized manner, which goes beyond the framework of both Marxian and neoclassical understandings—at least, the usual understanding of the involvement of natural forces in economic circulation. And for this it is necessary not only to abandon the rigid opposition man-man, which constitutes the very concept of profit, but also from the opposition of man-nature. Do not consider this approach naive – especially since it is not new since empedoclear times. It is just necessary to give motion to the stagnant gears of the categories of "attraction and repulsion, friendship and enmity, love and hatred"; here some conceptual switches should work. In the case of human communities, this means recognizing that "there" are "the same", and that mankind, within the framework of certain decisions, is able to work as a single colloid organism whose existence is determined by a suprasocial natural reality that must be treated as a home environment. And this means – neither much nor little, like the extreme flexibility of economic activity, unprecedented earlier. And, again, in relation to the current realities – the creation of a self-reproducing system of a global division of labor on cooperative grounds, just as the self-reproduction of the capitalist system on the grounds of expansionist-profitable ones existed up to now. Of course, this is a humanistic message and, of course, it will have to play inversions of the concepts of production and consumption – when it is assumed that the consumption and production of one thing is invariably associated with the production and consumption of something else, and also when it is assumed that consumption in one respect there is production in another. But if you say so, it turns out that the process of social interaction is something like a kaleidoscopic game – on the one hand, and something like a biocenosis – on the other. Economic social interaction is allowed here as a consciously designed (and also run on the level of unconscious routines) biocenosis. At the same time, his play character should be

rethought outside the usual definitions of the game as expansion and conflict – in the game its participants and the means of the game can be more valuable than the game situation, since they can be used in other games (play as a process should not destroy game facilities, but also using their participants, otherwise it destroys itself). In the same sense, the interpretation of "exchange games", including money games for work in the new social system.

It is even more important that if it is a cooperative empire, then, as applied to money, this empire will not be built on the principle of "center-periphery"; rather, it will be a working one, not a dominant one: rather, it will be a system of cluster territories built according to the geometry of the "Benard cells" (or Voronoi-Dirichlet diagrams), where in each block there will undoubtedly be a center and a marginal periphery, bordering on the marginal periphery of such regions. But this is a system of centers, and not one absolute, and the Haldunian recirculation in it turns out to be an option private, but not fundamental (when the monad-cell "closes the windows"); another option is the transition of the elite into another cluster-cell, the benefit of the system of these cells is open. And this is an important difference between the "cooperative empire" and others: external borders are not just peripherals. First, they need not be protected by a "great wall"; secondly, the territorial presence in such an empire does not mean that the rest of the world of others is mine, only others do not know about it, but that in this world there is room for me, because there is a place for others. So, the exchange with these others occurs on, so to speak, polyimperial, or quasi-imperial, principle.

### **The graph of the economic system**

If the economy, according to Grigoryev, has money primarily, and the M-P-M' principle is realized in it, and commodity markets are possible only in the system of commodity-money relations, then it is possible to identify an important topic that clarifies certain features of the neoeconomic theory: in on the one hand, and on the problems of understanding the so-called "closed markets" on the other. What is meant?

First of all, draw attention to the fact that it is very obvious that the relations between M-P-M' (Grigoriev) and P-M-P (Marx) can be considered as a graph, but for some reason they are still not considered for some reason . At the same time, money and trade and financial activities are declared priority and meaningful in

the framework of neo-economy with regard to the actual production and consumption activity, or the activities of the invention and the production of artifacts or organized, or cultivated to some extent, the forces of nature, because they make the production sense of meeting third-party demand on its subject, although trade activity itself is possible, within the framework of neo-economics, on the basis of money as a specific invention. And by the way, is it not, in this sense, to provide the best consumer goods for consumers, there is a financial sector in its own sense, so that they, in their turn, best manifest themselves as creators, designers and builders – both in terms of social and extrahuman, material engineering? And is there much more sense in the value of "make money" realized through the growth of  $M'$  and squeezing competitors into increasingly depressed markets for their own, and often ridiculous, division of labor system, to the detriment of more efficient human capabilities? This is the same "bead game", only if H. Hesse spoke about infinitely valuable lessons in the system of scientific bureaucracy, which loses its meaning and cognitive value in itself, the self-valuable game of beads with profit is conducted at higher but not higher more meaningful, rates. Taking into account what was discussed above about the "traders from science" in the section on the language of money and the law, all this is in support of the thesis about the meaninglessness of activity, deepening its own specialization for its own sake, however great and significant it may be.

In the framework of neo-economy commodity-money relations are examined through the notions of commodity and production animation known in financial science, logistics, rate of return of profit, urgency of investments, inflationary-deflationary pump. At the same time, transport and logistics infrastructure is considered as the main production multiplier for trade and financial activity. And at the same time, only within the framework of this activity commodity-money relations are considered, where the marketability itself is considered, again, in its value relative to the category of demand. Such a centralization of neo-economics is natural and understandable in the light of the transparently declared departure of Grigoriev from a purely consumer-wage interpretation (in the theoretical sense, a vulgar-Marxist and sharply appraising philistine interpretation) of the social role of money, on the one hand, and widespread neoclassical-orthodox attitudes and assumptions on the other.

The graph interpretation of transport-logistic entities and phenomena is left today by neo-economics to bail out the actual applied logistical knowledge, but the

approach to understanding both P-M-P and M-P-M' through the graph as a system-wide primitive is completely absent. What, however, does this give?

First of all, both organic and inorganic forces of nature and resources, and language, social engineering, artifact of money, under such an examination turn out to be in the cognitively equivalent condition of excluding the center. The consumer-commodity-warehouse and transport-communication-monetary components of the economic system are not more important than one another, but are complementary, which implies a higher level of understanding of economic reality, and simultaneously, by the way, clarification of what is called the neoconomics term "closed market", meaning, according to Grigoriev, an economic phenomenon of a complex nature. The latter, however, can be, for example, considered as the non-trading phase of the economic life of the oecumene, accented on natural capital. At the same time, the self-valuable pursuit of profit at the expense of ousting other participants and entire systems of the division of labor, as well as re-specialization, looks like a graphical representation of commodity-money relations as a kind of deviation, reduction and disease, which has nothing in common with productivity, development and long-term viability of managed commodity money system, that is, with the possibility of rational growth of the public good, because it also reduces the quality (and in the long term, due to economic and real wars, number) division of labor, as well as reduces the leisure time needed to overcome the problems of reorientation.

In theoretical graph terms, the neoeconomic interpretation of commodity-money relations will be nothing more than a shift from centrality on commodity-consumer peaks to a centrality on trade and communication relations, which, logically, is the essence of both economic dynamics and economic life in general (although, however, and "not quite" the economic entity – by virtue of what is said in this book about the existence of money as part of the subject-technological set). Therefore, it is important to take into account the possibilities that:

1. thesaurization is not a panacea, and sometimes a pestilence (actually a neoeconomic thesis);

2. vertices and relations as a means of interpreting commodity-money relations can be inversed (for example, a trading platform can be viewed as a communicative relationship concentrator and as a top, and the communication

channel itself as an extra-dynamic and commodity consumer good that can act as a saved capital).

Of course, all this does not completely explain the phenomenon of a financially limited ecumene, but it gives an important speculative help. Such a graph understanding of commodity-money relations allows us to perceive economic reality in a fabric, clearly, and therefore, more variatively relative to its operational and managerial capabilities. At the same time, such an understanding provides a basis for correlation with the social network graph (the graph of the sign and solidarization) and the semantic (culturological) graph, which together and in overlays gives a more complete and machine-computable structure of social reality. But the main thing that this gives, is, once again, the equality of the key roles of systemic subgroups of the social organism. Graph interpretation of economic ecumene also seems able to help see the non-growth models of development.

In the applied plan, this means that both production and trade activities are inseparable and mutually complementary components of the macroeconomic division of labor, and its reorganization in cases of shocks for ecumene should be of an integrated non-state administrative nature (but not shock), including training, self-employment, the institutions of socialization and other things that are developed taking into account the established practices and adherents of those who have to master a fundamentally different approach to things and even to life. The principle of "surviving the strongest" here is a demonstration of managerial incompetence, since it implies a transition from a rational device to the arbitrariness of an allegedly possible self-organization, often without taking into account the terms of this process, the victims and the possibilities to control external factors affecting it. This was in Russia in the 1990s, when pathetic nonsense was made up of experts, under the guise of the great man's phrase about the "invisible hand of the market," giving to the will of natural processes and the case a huge society whose management was set to be reconstructed and adjusted.

A few words about the inversion of edges and vertices: nodes – as relations, and edges For what things may an inverse understanding of the graph in the temporal interpretation be needed? First of all, for the approach to the system-wide understanding of the multi-project activity, built on the principle of the division of labor with a certain level of its deepening, and understanding the conditions of

demand (demand) for the results of project activities on the part of other designers who are not very inclined to fit in any structures, especially if they are hierarchical. After all, the team of designers, if considered non-economically, in case of complex activities is tied to SRT, that is, they need someone who organizes them exactly as designers, being "above the process and aside." But only we did not answer the question: how can creativity be organized (creating a routine) as a collective action? With the fact that creators, as a rule, passion as individualistic. But there is real co-creation. Here the question arises whether someone "above" and "outside" is needed, who "will create a routine for them"? And will not this lead to a roll into the "emergency-empirical activity" (Avralno-Opytnaya Deyatelnost – AOD) by creating a management hierarchy? And why can not they (can they?) Do it themselves? But all this is already questions for further study.- as objects that are connected by nodes. A graph as a logical mapping (with the possibility of linking to mapping geographically) can be represented by a temporal structure. And not only in the form of the branches of the development of the events of the temporal logic "KT", but also quite in the form of a non-centered representation, when the connected entity is considered to be a directed edge, or an arc representing the process as an entity or system (and so the process began to be seriously thought somewhere beginning of the 2H of the 20th century) that has a beginning and an end in time: a project, a narrative, a script, the life span of a person or other living being. Then the moment of connection with another process-as-entity will mean a relation (already known to be interpreted through a hypergraph), representing – in the case, again, the directional-arc status of the "inverted" rib, the moment of "bifurcation" for its end or "anti-bifurcation" For its beginning – respectively, the system-wide condition of the forecast activity – in the first case, and the project – in the second. In this case, the possibility of interpreting the inverse vertex as a hypergraph is preserved for both a unidirectional and non-directional (mutually directed) inverse process as an entity.

For what things may an inverse understanding of the graph in the temporal interpretation be needed? First of all, for the approach to the system-wide understanding of the multi-project activity, built on the principle of the division of labor with a certain level of its deepening, and understanding the conditions of demand (demand) for the results of project activities on the part of other designers who are not very inclined to fit in any structures, especially if they are hierarchical. After all, the team of designers, if considered non-economically, in

case of complex activities is tied to SRT, that is, they need someone who organizes them exactly as designers, being "above the process and aside." But only we did not answer the question: how can creativity be organized (creating a routine) as a collective action? With the fact that creators, as a rule, passion as individualistic. But there is real co-creation. Here the question arises whether someone "above" and "outside" is needed, who "will create a routine for them"? And will not this lead to a roll into the AOD by creating a management hierarchy? And why can not they (can they?) Do it themselves? But all this is already questions for further study.

In the framework of the neoeconomic theory, it is a question of the increase in the public good, but not very often. For example, in the case when the IT sector is criticized for the fact that over the 40 years of its existence, since the era of "Reaganomics", has not given the increase of this good anywhere except in the banking and financial sector. At the same time, however, there is no mention of a formulaic expression of this good. Meanwhile, if we think economically, commodity is commodity, when every commodity invariably assumes a monetary one, then we will have an expansion of the Marx's formula  $P-M-P$  to  $P-M-P'$ , where  $P'$  is a multiplicable or series-triggered commodity; this requires clarification and clarification in the sense of a non-economic understanding of industry: both in the financial sector and outside it. And also – for the neoconscious understanding of all the same uneasy and ambiguous (according to Grigoriev himself) the topic of closed markets. The money dimension is given exactly by seriality, and the division system of labor is, in fact, a means of providing it: it is the perception of the utility of the serially created ergon or artifact that sets it apart from the artistic improvisational, although improvisation for each product can be part of the serial production procedure. Of course, Grigoriev's criticism of pure production for the sake of production, or the infinite increase in  $T$ , is just as absurd as the net increase in  $M'$ -the production of money for the sake of money. Well, let's just say so – about the absurdity of the game in both money and production, "beads", and not lead a total criticism of the centrality in production as a sphere of predominant management of the extrahuman environment, being re-centered on money as a semantic technology for managing social processes (well, or, if you will, as a means of managing "borderline" socio-technological relations). At the meta-level, overcoming the bad endlessnesses of  $P$  and  $M$ , which are part of one another and system for

"production-reproduction-extended reproduction" under their trade and financial systems, is possible through the equilibration of categories P and M at the managerial level. And this general consideration must still be explained and worked out. It is from an understanding of such a balanced state of P and M that it seems possible for me to best organize multi-project activity within social systems, and the design of such an organization will be optimally integrated.

All this is for the thematic priming, the basis for further research on the relationship between the economic and non-economic aspects of both social and extra-social, natural reality.

### **Speculative hypothesis about money in the sense of time and space**

The hypothetical consideration presented below arose irrespective of the understanding of money as a design and the comparison of the two approaches to the project activity, but it is completely within the bounds of this understanding – especially if we consider them from the point of view of integrated design for the formation of a spatially-technological environment that is organic for people's lives all the understanding that from the point of view of socio-historical processes, this "organicness" itself is quite subject to various shocks).

If the essence of money is that they are the original means of allocating resources whose quotes are tied to the time-shared labor exploited by the financial sector, why not also consider them in relation to the space-or rather, the means of limiting it, isolating and forming loci actions of one kind or another, but brought to some standards. Especially if it is thought of spatio-temporal. For example, why not take as a basis elements of self-connected structures that isolate some spatial volume? Their production complexity (not excluding production simplicity), embodying the original, causal, idea of matter, will turn out to be quite suitable for creating a "covering", or a space of generatrices (in Leibniz, non-Newtonian sense) multiplicity.

Be that as it may, for this ontology of the product and the first-natural possibility, I propose to see the same productivity of the "labor-space" relation, as once the economic productivity of the "labor-time" relationship was perceived by the economic genius. Moreover, if the non-economic conception of economic realities, which is communicative, is involved, it is precisely from a

communicative, interactive view of the economic meaning of currency quotations that the difference in unit labor costs in different countries follows the time if not as a "measure of value" or an "equivalent" , then, in any case, as a field (that's because – again the spatial metaphor itself is introduced ahead of time!) the definition of money.

But how is it to talk about money and trade? After all, the very question of such an alternative is caused by the problem of impossibility of growth of the system based on profit. Rather, we need to talk about non-financial money, as a means of allocating resources, but not tied to labor time, but to the resource-use space. That is, talking about money is not in the sense of having a person with his labor and time, but in the sense of his absence, where they are released, they discover not the time formed by events, but the space formed by things produced by work in time. And since the produced in the profitable model, having reached its highest stage, the essence produced for the most part for sale and profit, that is, for the formation of the consumer's needs, rather than for its real demand, there must be means of protecting a person from the goods that he is imposing and (commodity or rather, commodity-based) events. It's about the means of fencing, because if we talk about the means of getting rid of things in general, then it looks like another means of war is alternative to them.

The problem with these definitions is that money is already a very specific thing, and what is related to the filling of space (even with what constitutes the primary artifacts of its urbanization) is already an industrial sphere, and also very definite. Here I am only talking about the fact that space, under certain conditions of its deficit, against the background of a deficit of money in the usual sense and a surplus of space-filling artifacts, becoming a scarce resource of freedom of action can become a value expression of the very possibility of action. But for such a space to become money, it should become a space of administrative-prescriptive zoning-that is, the refraction of the known totalitarian-industrial practices of the regime of territories, but with the only difference from "factory-factory" and "barracks-military" these spaces will be less regulated by the structure of activity, and they themselves will certainly occupy areas commensurate with settlements of different scales. The activities in them will be structured in a "semi-self-organizing" manner, to the extent of targeted financial infusions, into precisely this "social broth" imposed on the "regime grid", as well as horizontal and vertical

migration between such territories depending on the emitted and disposable banknotes, as well as from extrusion of participants from one zone to another according to the rules of the game (just as participants in the game "Mafia to N Cities" flow from the "city" to the "city"). Money, in this case, how the regalia of relative power will mean the right to be on those or other spaces and territories – like what the original "brand" was originally (however, the sentiment of History: the birth of finance from the spirit of love for theatrical art!).

But all this, once again, there is a hypothesis provided that there is a deficit of free space, or "space of action". From the point of view of the state-distributive concept of money, it is an oxymoron: proper management by means of money is a foreign emblem, a property of territorial and colonial empires; while restrictions and control of spatial displacement is a sign of internal empires formed on the basis of national states. Meanwhile, the marriage of a "horse and quivering deer" may not seem so pointless, especially if His Majesty the Historic Process will take care of it – unless, of course, this process goes to precapitalist quasi-feudalism, and if the sprouts of social and economic cooperation fail. These, the latter, are precisely capable of giving the volume to the "labor-time" relation – "labor-space", since their deployment will require a residential development of new spaces, the use of new technologies (I'm just doing their "historical-methodological" grounds), but the main thing is the forms of managerial interaction, when a high degree of cooperatively motivated division of labor will replace the dominant "when" and "how much" by the dominant "where" and "why".

## **The historical and economic nature of technical and technological**

### **Economic and non-economic views on technology and technology**

Meta-relationship to economics as a science presupposes at least two plans:

- historical, associated with the conditions of its occurrence, and
- subject-typological, relating the economy to the practices of research and discourse, which have certain typological properties.

In the foreground, the economy, in the form of Smith's political economy, separated from the tradition of the physiocrats (or continued them) had that peculiarity that proceeded from an orientation toward a universal description of

the field of economic entities and relationships, relying on the empirical basis of a concrete, sufficiently developed and clearly defined historical the context of economic empiricism, later called capitalism; and this feature was preserved even after such empiricism was objectified and named. On the other hand, the very economic reality, in the context of which its universalistic self-realization was going on, was the result of an attempt to translate one of the most mysterious Platonic ideas lying in a prominent place (and therefore "most securely hidden") – the Atlantis legend – by means of this very Atlantis create. And the whole history of the development of the world precisely as an "economic" world, beginning with the "long XVI century", was not only a conscious, or an unconscious, embodiment of this idea – beginning with scientist conversations of Cosimo the Elder with his grandson, the creation of the latter a new type of university, the discovery of the continents on the other side of the Atlantic; continuing with both industrial revolutions, colonialism, world wars, the proletariat; ending with welfare state, global finance, neocolonialism, the Internet, a global recession and the urgency of growth limits. Atlantis something like it came out, but some strange – at the peak of its heyday, going into a total, global, multifaceted, civilizational crisis. However, the more interesting it will be to understand why Atlantis has disappeared, the ancient one.

In the second plan, the economy can be considered as a knowledge of the so-called "synthetic" type, envisioning the enrichment of one's own systemic nature by referring to the results and provisions of the sciences on other subjects adjacent to it. The economy is also considered a humanitarian science, although this distinction (of humanities and natural sciences) is only an episode (for many, unfortunately, very relevant) in the history of science, which began in the XIX century, one of the schools of neo-Kantianism, and began to end somewhere in the last third XX century (for example, technology to serve cultural industries and work with complexity in this dichotomy does not fit). Although here Xenophon believed that economics is a natural science, and Aristotle contrasted it with hrematics as a self-valuable accumulation (the highest form of which the financial economy may well be considered to be). Another important, if not the most important, object-typological distinction of the economy as a science is that its pathos arose from applied and positive ethical problems, as perhaps the most tricky discipline in the body of philosophical knowledge – so tricky, full of problem

moments, in the jungle of the philosophy of language and consciousness, that even many who receive the university diploma of a teacher of philosophy, bypass it by believing that the Nietzsche immortality that covers these tricks and the general moral message of Marx (whatever, by the way, to the economic views of the latter) is the best that could be said here. To explain why this is not so, I will not be here. I will only point out that the chrematistic interpretation of the subject of the economy runs counter to the political economic indication of its ethical originality.

Both plans, of course, are combined with each other in an interesting way. Late Antiquities (in particular Seneca), economics was defined as the art of economic management, but before it Plato spoke of κυβερνητική as a science, art or the format (self) control of the ideal state, which for him was always thought of as a policy, but the most ideal alternative (or likeness) of the polis state and was for him the mythical Atlantis. Those events that brought cybernetics closer to the economy suggest that classical economic theory was just a historical attempt to translate κυβερνητική in the Platonic sense, but it was precisely this same circumstance which spread the economy and cybernetics across the various faculties (although at Lomonosov's MSU they are in the "strange coincidence" historically located in the same building). And ethics is also the methodological basis of the economy, its logical-deontological part is also densely in touch with cybernetics in its "Wiener's" understanding. Already behind Beer's cybernetics of the "second wave", Buckminster Fuller's ears of synergy are openly outraged, the main program task of which was the return of metaphysics to positive science, but this is "a little" another topic.

All these intersubject connections can be clarified, disclosed and proved for a long time, but here is the question: what does technology and technology have to do with it?

Probably the most effective in terms of forecasts (which are the main criterion of scientific productivity) is the theoretical construction in the field of economics, which focuses on technological – the concept of technological zones, developed by the "neoeconomic" group of O.V. Grigoriev. According to it, in the world historically there were several points of technological development (among them – Germany, the USA, the USSR, Japan), uniting what I call a technological emission

at a lower level. These zones function in the system of monetary economics, which, in fact, deals with classical economic theory, and in which, therefore, the principle of "greatest profit with the least investment", which is subject to any technical or technological innovation. That is, technology is introduced into production not in order to save the worker from hard work, but in order to reduce the cost of wages, reducing (by means of technology) the requirements for qualification. At the same time, since, in addition to the state, the end user of the product is the same employee who, for the sake of the same producer's profits, must regularly buy the goods (which, by the way, must regularly break down this product and be regularly advertised by all available means) he must have money, which, as labor costs decrease, becomes less and less, there is a systemic contradiction solved within the framework of the model of on-lending until the financial bubbles based on it are They begin to burst in view of the absolute insecurity of consumption of workers by their incomes, and then the contradiction comes to the surface and the crisis of falling returns from capital begins, caused by the fall in aggregate demand and the related liquidity deficit due to the inevitable rejection of the tyagomotry of all sorts of "quantitative easing" procedures and other measures of depreciation.

In connection with all this, available in such an economy, institutionalized system of scientific and technical production-oriented production of innovations sake, as has been said, reducing labor costs and expand markets, to work a few hundred years, it ceases to work, as exhausted, on the one hand , the markets themselves, and on the other hand, the population of the planet, the numerical composition of which determines the possibility of further deepening the division of labor. And this despite the fact that the lion's share of this population lives in poverty and does not possess what is solvent, but in general demand for the majority of goods and services produced by the global market. And in the regions of production of goods and services observed phenomenon antiproletariata (edyukariata), when a plurality of persons with higher education has no employment opportunities and, consequently, income generating demand for startup mechanisms. In addition, these disgruntled, almost all of them riding on the Internet, unhappy and quality of higher education, which in most cases nothing or little to do with production or management processes in society, and in the case – with a demand for edyukariata in society. This results in a global crisis of manageability, since the

numerous societies themselves are more complex than the management tools – state ones and corporate ones (including transnational ones) that replace them. Therefore, on the part of the latter, there is a demand for means to increase the manageability of societies, including avant-garde media technologies, means of manipulating the mass consciousness and police means. And the corresponding scientific and technical developments in this field, the physical part of which rests on the IT sector, is the only one that is the most stable in the crisis, but also is increasingly reeling as the latter develops.

In this sense, the scientific and technological process, which began in the "long 16th century" and based on the ideology of the Scientific and Technical Progress, comes to an end. It is hardly possible to argue with this if you are within the framework of a sober economic review.

Nevertheless, in itself the phenomenon of technical and technological can not be exhaustively explained in the system of economic concepts, not only because the economy as such has the historical limits of its appearance noted above, suggesting a completely definite, concrete interpretation of the technique and method of its utilization, but also because the technique, according to Fernand Braudel's apt phrase, "makes up the thickness of History." That is, τέχνη, in a broad sense, as mastery, art (including the art of scientific knowledge), mastery (including artistry), the skill of any (and related tools), often based on such a frightening economist Mikhail Delyagin creative the ability of a person (to develop and manage which "has not yet learned"), is the first emanation of a reasonable person, and testifies to the presence of such a person irrespective of any method of his humanitarian description, in particular – without regard to the description of its existence in terms of a particular socio-economic formation. This technical property can be maintained from the Neolithic Revolution, it is possible from the appearance of the Kormauinians with the Neanderthals, it is possible from somewhere else.

Going down to the level of generalization with reference to the specifics of today, taking into account the above circumstances, one can observe a rather interesting picture when a process that, for the sake of cajoling NEOKON's, can be called "the inertia of certain areas of technological development within the monetary economy", translates the products received within its framework from "Habitual

economic" plan for commodity-money exchange of resources to the level of autopoietically managed natural-resource exchange. In other words, we are talking about doubling the natural reality in terms of the formation of artificial life forms as the optimal (or, perhaps, the highest) form of technological mediation of man with nature environment. In other words, there is a process of "grabbing God by the beard," no matter how one treats this. The peculiarity of this process is that it, leaking within the framework of the ceasing economic model, is aimed at reaching not only beyond its borders, but beyond the economy in general, and is able to form behind these frameworks a reality that is described in the usual terms as the reality of objects of natural rent. It's as if it were suddenly discovered that some animal or vegetable organism, known long ago in the biocenosis, was once somehow created by someone. It all sounds, perhaps, clumsily and fantastically, but the trend is exactly that. And, most likely, it is in connection with it that the post-maritime industrialization of control systems will take place – in any case, such a process would be natural; the industrialization of management systems in a separate financial sector did not lead to anything good – it's like if homeostasis would be provided within only one subsystem of the body.

There are many examples to support the existence of such a process, and there is no sense here of bringing what might be the result of careful, but not complex, monitoring. Of the high profile recent events, I believe the Pentagon launched the Autonomous Research Pilot Initiative. It is possible, of course, like Oleg Grigoriev, to say that all these are beautiful, but empty advertising ideologies for attracting a depleted flow of investment in R&D (for which, indeed, there are good reasons, which, however, must be different from the real process) . But the results that fit into this trend are too diverse and workable. Moments of doubt, really worth attention, in my opinion, there are two. The first is connected with the question of whether the collapsing multi-hundred-year economic model will not bury the process that extends beyond its framework before it can fully crawl out. The second is related to the systemic contradiction already known for various cyberpunk anti-utopias: autonomously controlled and reproducible systems created to optimize the interaction of man and nature must maintain control and friendliness to their creator, that is, for such technologies the ratio of auto- and allopoiesis should be optimal; However, to maximize the efficiency of such systems, their level of autonomy should also be maximized. Outside the economy,

this process will be insofar as the self-reproduction of the doubled nature will be oriented not only to the final demand, its solvency and return of investments invested in R&D, but also to adaptation to climatic and biocenose conditions. Adaptation, which, in the end, will proceed without regard to investment, demand and other things. In other words, these moments of doubt are connected with the possibility of transition to a new evolutionary stage of the organic presence of man in nature. And how this evolutionary coil or a leap to the level of the "new" natural rent will be interpreted – as progress or as a regression – a secondary issue. Of course, the transition to it will be accompanied by the emergence of concomitant forms of consciousness and relationships, including mystical and mythopoetic, as is well-known today. But it is worth remembering that the mythologems of one type or another always accompanied major social transformations.

### **History of European technology and neoeconomics: to clarify the roots of the fundamental and combinatorial economies of knowledge**

Before turning to the questions of the history of technology in connection with the general theoretical task of neoeconomics to clarify the issue with scientific and technical progress, several remarks should be made concerning science, in addition to my further material "The question of approaches to science in neoeconomics in the aspect of the concept of a model" where we are talking about "pure science," which, according to theory, took the origin in medieval scholasticism, which solved the problems of cognition on the basis of the paradigm presumption of the divinity of the world order, and developed the apparatus for this purpose ial concepts and logical-hermeneutic means as a rational comprehension tool. Beginning with the New Time, this toolkit was supplemented by the category of the model (which assumed a concrete historical form), which became classical and paradigmatic, and continued to exist in science after the presumption of the divinity of the world order ceased to be the dominant scientific paradigm. The essence of the methodological proposals outlined above is that the meaningful construction of neoeconomics requires a revision of the general scientific classical structure in general (and hence of fundamental logical intuitions) and that they can be applied to developments in the field of immersibility of logical systems, tasks, as well as the "semantic monsters" that I proposed for a meaningful interpretation of the relationship between reproductive circuits. However, the one presented there refers to the

science of maximally abstract concepts, and does not touch upon the questions of the institutionalization of scientific institutions. Therefore, here and further I will try to 1) link the issue of the development of the basic forms of European scientific institutions with the problem of institutionalizing elites, which Oleg Grigoriev said in 14 lectures (from the basic course that he had reinforced in Shaninka).

Through this connection, 2) move on to the theme of the new European technology that originates in the problems of applied mechanics, which constitutes the neoeconomics hypothesis, denoting the unity of science and technology in the well-known abbreviation of NTP (Nauchno-Tehnicheskii Progress), which is in many ways unique for European culture; In the framework of this review, it is clear why it is applied mechanics that is the area of basic technological issues, and not, for example, the technical practices of chemistry and biochemistry that existed long before the New Time, or the practice of studying and using electromagnetic phenomena that anticipated the Second Industrial Revolution.

And already from the topic of applied mechanics I will try to pass to 3) the promised in the mentioned document consideration of the possibilities of speaking, capable, in my opinion, of not only presenting problems of applied mechanics, but also solving a number of problems of human presence in the world. Such speaking is considered possible on the way of clarifying the ways of forming subject-technological sets and understanding the consequences for non-ontology from such a difference. On the other hand, in the previous material this talk was connected with the ideas of the synergetics of R.B.Fuller, but, as the study of this topic indicates, one is not reducible to them, since it has been possible to identify a whole pool of very interesting and multidirectional researchers, who thought and created, however, in one direction.

I'll start in order.

In 14 Grigoryev's lectures we are talking about the history of capitalism – about the acceptability of F. Braudel's world-system approach as a means of describing European history, and the fundamental problem of the 800-year institutional split of elites into cesarepapism and papocesirism (Guelphs and Ghibellines) and the impossibility in this connection to form a territorial a European empire multiplied

by a highly differentiated resource, a comparatively small area of Europe, which sheltered usurers from Asian territorial empires – connoisseurs of *sukuk* (cheque), who set out to misappropriate the money of the great empires of the East, and the strained relations between "finance" and "law" as two fundamentally different ways of state management of society, followed by the process of separating money from the state (which, in turn, became the proto-base of much later economist views). From this same department, there are free cities, which later led to the need for regular armies and the necessary for their maintenance, the level of technological division of labor, which led to the development of a scientific and technological progress in the conjunction of "N" (science) and "T" (technology) in the form of mass manufactories and subsequent factories-factories. According to the content of the lecture, from the institutional split, the conclusion of the legal department is obtained on a completely different, university and abstract level – in particular, on how to relate the divine and secular authorities: for the issue of the relationship between the emperor and the pope also tried to resolve legal, in monetary ways; this circumstance is postulated as one of the points of growth of European science. Indeed, the first universities in Europe had a basic philosophical faculty, after which there was a traditional division into theological, legal and medical directions. And, indeed, it is sometimes difficult to say what was more in the dispute between Thomas Aquinas and the averroists: a theological content or a cultural superstructure that provided controversy over economic and religious-political bases.

And here I will enter my own hypothesis about what the main historical forms were the science of the period of the formation of capitalism. University's science of Europe, even with the Bologna Notaries, was ecclesiastical, or Gwelfian, mainly. In the framework of this Guelph, scientific tradition of training educated cadres for the church, originally founded by the erudite and subtle connoisseur of the beautiful Pope Clement VI Pisan University, and much later reopened (or re-invented) by Lorenzo the Magnificent, became the first university of the new European type, since, with the sponsorship of this philanthropist, strangely combining in one person a pan-European banker and a very localized (and very effective) sovereign (one might say that he sacrificed for the sake of state cares successes of the bank), was focused on solving problems not so much reproduction of the church educational tradition as rather strange and not lying

on the surface of the tasks of this person. Rather, the most important task, since, as is known, the members of the Medici house (especially its earliest representatives) were looking for the Platonic Atlantis, and in general the signs of other, earlier and more perfect arrangements of society on earth – it suffices to say that the Medici himself, with Alberti, was perhaps the first professional specialist in ruinistics in Europe to precede in the form of present archeology. And this particular university organization, which has been invested quite specific private funds (the love of art, of course), acted as the fact that with the XX-th century 2H became known think tank, covering a variety of research areas. As is known, after Lorenzo I in Pisa there were scientists of a new type – such as Galileo and Toricelli. It is noteworthy that such scientists have protected quite a state, but local, and have quite formal, Duke (of the same name), as observers and naturalists fundamental type in the sense Drucker, while continuing religious and scholastic tradition maximum generalizations, actually saving them science of a new type. It was the science with religious roots, "scieligion" – she continued to exist for decades before the advent of Protestantism, and in many respects it continued until the beginning of the paradigmatic crisis 2H XX – st. XXI centuries. To a large extent this is due to the fact that to create a "new university" Medici clan was a clan of bankers of the Apostolic Chamber, is dependent on the papal sanction to the management of resources (right alum production), with the result that, as a result of ambiguity: the southern European politics of the time, led the members of this clan to the papal throne and, further, resulted in another round of confrontation between the elites.

If you postulate the fact that the traditions of university education, having undergone a significant systemic transformation, have not disappeared, it is logical to move on to the question of whether there was a certain proto-form of the new European scientific character on the part of the emperor. After the Emperor Charles V, whose troops destroyed Rome of Pope Clement VII (Giulio di Giuliano de Medici) in 1527, the grandson of the brother of Emperor Rudolph II appeared in 1552. The peculiarities of his personality led to a fascination with esoteric and occult things associated with transmutations and the restoration of the ideal nature of the human "homunculus" (probably not relying on the discovery of an authentic Atlantis, they began to search for the ideal person corresponding to it, for the person who departed from the "ideal form" a sample

ubiquitous for researchers, including their own reflections in the mirror), which, in turn, became the motivational basis of the supertask of the school of Rudolphin scientists, the first of which is widely known Tikho Brahe and Johann Kepler. Being somewhat different from the Medici, Rudolph's super-task as a whole coincided with it essentially (if at all was not its continuation). But the form of a scientific institution coming from the sovereign is not a university, as a community providing a church community, but a *kunstammer*, aimed at the interests of an enthusiastic, enlightened, and patronizing personality of the monarch. In this sense, in spite of the platonic ideals of the supertask, the imperial principle of replenishing scientific knowledge by the method of systematic collecting was reminiscent of the principle of collecting Alexander and Aristotle. And in the same sense *kunstkolleksiya*, or a museum as a place of accumulation, systematization and preservation of copies of amazing, but above all – rare items, divided in to the creation of nature ( «*naturalia*»), artefacts – including, first and foremost, art ( «*artificialia*»), and of the knowledge, tools and appliances ( «*scientifica*»), was precisely the anthropological source of scientific interest, just as a source of scientific interest "new university" was the original search unexplored systematic world order, the keys to a Torah steel, including some amazing things (it is noteworthy that Lorenzo was himself a collector of Arts), but not only: "New University" was occupied by the active development and reproduction of the ideas and principles of the "better life" – it is this fact has made this institution, in accordance neoeconomics, the source of the highest state cadres and, ultimately, such a great source of revolutionary sentiments (at least in Russia). While private, first of all – the monarch's collection, taken as an organizational source of modern European science, can be viewed in neoeconomike as the highest, or freeze-dried, form a resource warehouse, which, unlike "primitive warehouse" of ancient times (by neoeconomica), has now turns not a place for ordinary tax revenues in kind, but, in fact, a warehouse of rare resources, simultaneously acting as a specialized knowledge warehouse, replenished through a "cognitive interest tax" from which it is not the rare resource itself that is already being brought out, but the knowledge, or impression, about it, in this repository located. Initially *kunstkolleksiya* – this is a museum of rarities, exclusives, is regarded as a challenge to none, putting the problem of the conditions of replication and reproduction, and therefore in this uniqueness commensurate monarch himself uniqueness. The same applies to the collections of books (as well as any carriers

of unique scientific and technical, and generally cognitive, information) – both before the press – the most valuable and rare, and after its appearance. As examples we can recall that the Wojnicz Manuscript from the collection of Rudolph II of, legendary, mythical library of Ivan the Terrible (in fact, a symbol of a unique education, higher learning and inaccessible competence of the monarch, his unquestionable authority), as well as private collections of books that formed the basis of the current "Lenin Library". Thus, here, at the institutional level, a phenomenon is formed, centuries later recognized as a key common property of information: do not decrease when transferred to other media in any amount. In this sense, knowledge and impression are formed as a value for which you can pay.

And first of all, it is not the mass (or massively restricted) consumer of "educational services" or the "visitor of the museum" who pays first here, but the patron: if in the first case – for the human capital of the professors who provide his tasks (and not the student community paying the visiting professors, as it was from ancient times until now), then in the second – for the capital of unique samples that make up the set of the primary object-technological set (PTM, the term neoeconomics – 12 lectures, part 1) of the era of fundamental science by Drucker, with which The army of scientists under the emperor and the human capital that makes up it can interact as invited employees, who serve the system of the reproduction of knowledge, the center of which is the collection. And, if in the first case the basis of the interaction is the exchange of ideas, the "platonian feast", then in the second case, the individual, Aristotelian, work with the general archive. And, by the way, no "Academy of Sciences" as a form of scientific organization: both the "new university" and "kunstmuseum" already represent the incarnations of the Platonic Academic Garden. And if in the first case the reproduction of knowledge on the primacy of the exchange of ideas presupposes the primacy of the value of this capital over the means of individual work, with a certain share of the required freedom, then in the second case the requirement of providing a systematized scientific PTM on the one hand, and the status of the "scientific army" itself emperor – on the other hand, become the basis for the formation of a scientific bureaucracy as part of the state apparatus that creates and reproduces this PTM. Here, apparently, the technological division of labor in science is beginning: the collection of various samples is growing, and it needs to

be serviced by an increasing number of scientific workers united by the common task of improving human nature (or improving the combat capabilities of the soldier): each according to its direction.

And here it is possible to introduce a distinction between the two types of PTM, based on two ways of its formation: *natural*, or marginal, created spontaneously in the course of economic activity, practices of social adaptation in the environment and the traditions that have come from a distance; and *system-scientific*, or labor, formed consciously, on the basis of a preliminary model of the surrounding world, which is a systematized set of its samples and possibilities, that is, its ontology. Such sets of the primary level are the basis for the production of fundamental knowledge, sets of patterns of current reproduction – also combinatorial, but not yet massed. It is important that the maximum formation of PTM in the second type (scientific collection) occurs when all four aspects of its causality (Aristotle) are involved, that is, the consciousness of such a formation can always mean the arbitrariness and validity of the goal, and hence the conditionality of the function of the prognostic action.

Indeed, in a well-known historical retrospective this difference appears in the case of the Rudolphins, but the novelty (and, at the same time, the next hypothesis introduced here) is that each of these two methods of PTM can be replaced by another in the course of the historical process. I believe that examples of this can be found, and it would be very interesting to dig a subject thoroughly. This point is important not only for clarifying the optimistic position of V. Easterley regarding knowledge as an economic factor that has emerged, from the very beginning of European capitalism, but also for the search for highly efficient and low-cost alternatives to technological development.

In the course of the historical process, a collection of rarities leads to a collection of samples and standards that become part of a naturally reproduced PTM. That is, a set of copies of the PTM, for which the main significant properties are the labor costs for their reproduction and functionality. Thus, the gradual development of collections is carried out, and museum business emerges as a special cultural practice of standardizing fundamental science.

Neither the scientists of the "new university" (the source of science "fresh look") nor the Rudolphins (the source of the science of "applied solutions") initially did

not represent the science of Protestant capitalism, and were in the framework of purely Catholic traditions that tried to solve certain common tasks with scholastic and ancient means , overcoming, however, the rigorism of these means; It is important that both sources of science were oriented toward the tasks of the state, although in fact the source of its existence, one of them was purely state, and the other – commercial-state.

And in this connection – another important conclusion: the rare personalities of the imperial scholars, personally complementing the collection of rare things, proved to be an excellent means of replacing the Catholic ecclesiastical clergy, oriented towards the Pope. It seems that it was precisely here that the caste of the coryphaean academics, such a bishop of the scientific bureaucracy, who was ready to speak from the standpoint of science as a new religion, which is old and struggling with obscurantism and pseudoscience, formed, in the course of its existence, in the Institute of the Academy of Sciences and much later, in the system of these traditions in the post-war Khrushchev Soviet Union, there was a split into the university's – "cadre", and academic – "industrial," science, which is a cultural-discursive settlement of the ancient institution national split of European elites). It is noteworthy that in both cases the later forms of the "First University" and the "First Academy" of Russia, being state institutions, demanded status and economic autonomy, each of them in different ways, and the second – more than the first (curious , someone in general thinks of the Russian Academy of Science in the .XX – n. XXI centuries as a museum, rather than an office?).

So, in the framework of the two sources of scientific directions that are not far from each other, the primary reasons for scientific competition are revealed: on the basis of the novelty of scientific discovery – conditionally speaking, for the first source, and on the basis of scientific work – conditionally speaking, for the second source. "Conditionally speaking" – insofar as these details still require their historical study. However, one can immediately say that for the tradition of the "imperial science", where, as I assumed, the scientific bureaucracy began to arise, the question of the criteria for scientific competences (and, accordingly, claims on the share of the state scientific budget of various participants in the scientific community) was more relevant, rather than the novelty with which a specific (subsequently applied) result began to be associated – a new sample in the collection. I would venture to assume that it was precisely from the Rudolphin

tradition that problems of the "demarcation criteria for scientific knowledge" posed in the 20th century by postpositivists arose.

Within the framework of the interaction of the two sources of the scientific tradition, an important watershed has also been found, connected with the partial acknowledgment of the merits of the scientist and with the selective approach to his work. This approach had a concrete historical precedent, but later it turned into an essential tradition of the entire NTP epoch, up to the turn of the 20th and 21st centuries, affecting the process of systematic cognition, but very little attention to the science of science. It is about Johannes Kepler, his laws and his "cup". After him, you can certainly find a lot of outstanding minds, "half-hearted" included in the body of new European scientific knowledge, but looking ahead, it should be said that the most striking example of this phenomenon is the figure of Nikola Tesla – the author of the "second industrial revolution", anticipating "era of the Internet", the beginning of which marked the end of the era of scientific and technological progress.

Regardless of whether NTP is considered in the framework of neoeconomics or not, in the history of science the commonplace is the fact that the development of scientific knowledge and the development of technology, technology (and applied practices in general) is not necessarily dependent. The best example is China. It is widely known that, having a compass, gunpowder and a missile principle, the Chinese absolutely did not have in their culture what is known as the New European scientific tradition, and everything that is associated with this tradition on the XX – st. XXI centuries, including the famous "Shanghai rating" of world universities, is no more and no less than the borrowing developed by the legendary Chinese industry. (The option that the compass, gunpowder, rocket and other amazing things was given to the ancient Chinese by "gods descended from heaven" or "gods who lived on earth at the beginning of time", I allow myself not to consider here – simply because this is a separate topic, which is precisely out of place, and not because I do not "believe" it.) It is important that these and other technical knowledges had a place there as a kind of marginalistically taken value of reproduction and exchange, but precisely as knowledge, and not just as ready-made artifacts (part 2 of the lecture). And in this sense, here arises the question of the knowledge economy that V.Easterli put and which is mentioned in the basic course of Grigoriev's lectures.

Taking into account what neoeconomics says about free cities, the tasks of financing regular armies and the related need for large-scale manufactory production (1 part of the 14 lectures), one should also take into account the development of science noted here, with its motivators-supertask and accepted, in the course of the historical process of their solution, cognitive attitudes of various kinds. The university in the system of interfaculty communications generates ideas, fresh thoughts and strengths, and the accumulated archive of samples (which is also supplemented by the library archive of "samples of ideas") allows you to see how they can be applied.

According to the neoeconomic hypothesis, the technical field came out of applied mechanics. The search for signs of Atlantis by philosophizing Florentines, Leonardo's machines and the subject-technological set of Rudolph's kunstmuseum with its minerals and court scientists-all indicate that technical questions were inseparable from the scientific ones themselves. And also that most of the knowledge from the field of applied mechanics went to the Renaissance from Alexandria and Rome, together with the PTM aggregated on specific "knowledge warehouses", from which the samples are reproduced and multiplied in laboratories and manufactories. All these are also general things, long and well-known, and there is no need to prove anything here. It is important that, in addition to the "revived" applied mechanics inherited from antiquity, the Renaissance also received applied chemistry as a legacy of the scholastic epoch, and, because of the historical proximity of the epochs, got with all the due conceptual luggage like "nurturing gold from base metals". Such, mystico-esoteric, the beginnings of chemistry that came from the Middle Ages, are very similar to the metaphysical principles of natural-philosophical physics, the basis of any kind of which was mechanics. But they should, first, be distinguished in essence, and secondly, thoroughly clarified in the details of the history of thought. And, just as, according to Heidegger, every physics assumes an unspoken ontology, it should be said that any new European physics, and underlying mechanics, presupposes unspoken metaphysics.

About the expulsion of metaphysics and its components from the science of the New Time, many books have been written, and there is no need to recall them here in detail. Much less widely the academic community of the turn of the 20th and 21st centuries is aware of the return of metaphysics to science – above all,

the program of such a return is represented by the synergetics of the "American Leonardo" R.B. Feller. The theme of allegory, as the language of esoteric science of those years, I will also omit here, so as not to go into the nonessential, albeit curious, details, of which there are many in the subject under consideration. What is important here is that in the Science of the New Time, the process of linking physics together as a positive academic science was launched, with the expulsion of metaphysics from it as a paradigmatic basis, and the proposal instead of it the beginning of a general mechanics based on, in turn, a set of specific an epistem of movement, peace and strength. The very same New European physics in the process of its development becomes the basis of chemistry, and chemistry from a certain moment begins to be thought of as the language of natural transformations of the molecular level. However, at the very beginning of this process, the reception of ancient physics by "new scientists" is a reception of ancient natural philosophy, and the mechanics for them is, indeed, applied mechanics, almost exclusively of the same ancient origin.

As for biochemistry and biotechnology, their withdrawal from the field of natural PTM into the system-scientific field was carried out much later than the beginning of this process, in the 18th century by the works of Leuvenook and subsequent authors, although various hypotheses on this subject have been known since time immemorial. Until then, biotechnology in the natural PTM system was precisely biochemistry, but not biomechanics in the sense of applied mechanics of "physical forces". Actually biomechanics began to appear as a positive science also much later than the Rudolphinians – in the middle. XVII century, thanks to the efforts of the Pisa professor Giovanni Borelli, as well as – even later, having shown himself in the strange, so far misunderstood and unacknowledged, devices of the Austrian Victor Schauburger. Comparison of Borelli's secondarily tense constructions-analogs based on the mechanisms of the heronian type with the constructions of Schauburger's "science of forms" -is an important point of clarification of the unrealized natural possibilities and the forgotten knowledge of antiquity.

Thus, without going into further details, it should be recognized that mechanics as the main driver of New Time technology, on the one hand, has become the basis of a system of fundamental scientific knowledge, on the other hand – at the heart of applied knowledge, and any technology in general, as in New Europe the

admissibility of judgments about any technique and any technology became possible only from the standpoint of scientific justification, as the new science itself acquired its own standards – above all, the standard of value for itself.

What generally distinguishes the natural and system-scientific PTM? First of all, the fact that 1) the concept of the system-scientific formation of the PTM makes it possible to assume the possible in neoeconomics stadial quantitative models of scientific and technological development, depending on which model-collection of the world is taken as a starting point, as it is combined with the resource conditions of the reproductive circuit and its indicators on the function of consumption of Tornquist. On the other hand, 2) the recognition in neoeconomics that alternative technological innovations (and, as is assumed in this material, scientific concepts) are limited only to the homeostatic resistance of the existing division of labor system means the possibility, in the case of crises of the reproductive circuit system, development of MTB on the basis of new collections, including on the basis of exemplary elements of previous PTM and SRT. This means that it is possible to systematically use alternative or unrealized potentials for innovations that exist both at the level of highly anticipated fundamental discoveries and ready-made technologies that are not involved. And, therefore, it is necessary to verify the cases of obtaining comparable functional and technological results when using less resource costs for a less differentiated SRT that exists in the system-scientific formation of its own PTM after the disintegration of a more complex SRT and its PTM. But this also means that the stages of development of the PTM can not be strictly determined, and in any case they are not universally valid for any reproductive circuits and national economies.

Introducing the difference in the ways of forming a PTM, noting the causality of the connection between science and technology for the New Europe and the non-necessity of such a connection on an all-historical scale, it is appropriate to ask how this difference is related to the distinction between the types of division of labor (natural and technological) existing within neoeconomics, it is either conditioned by it.

Immediately before the introduction of the difference between the two types of PTM, it was noted that the Rudolphin tradition marks the beginning of the

technological division of labor in science, which, however, can not be completely reduced to such a division, which was recognized and recognized from the very outset of political economy – primarily because Scientific search and discovery involve a high proportion of not being routine, creative and accidental.

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However, if we are talking about a general scientific episteme of a model in the sense of a logical structure as the highest abstraction, then the meta-logical problem of interconnection of such structures remains relevant. Why is this abstraction so important? The fact is that, according to the hypothesis given in the section "On the Activity Perspectives of Medicine", the next stage after the industrialization of the industry must be the mechanization of control systems, the development of which must certainly go toward the management of viable, biological symbiont (and it is possible that biomechanoid) systems . Due to the fact that successful socialist versions of such projects were successfully destroyed in their time, the signs of such machinization are now designated in the formats of means of total control integrated with means of cultural industries (in the sense of D. Hesmondhalgh), which outline the comprehension of this trend at the level of artistic phenomena.

## **Invectiva vs dissertatio, or a series of prospectuses in the post-crisis science**

### **A small introduction to the issue**

The following list of circumstances is exhaustive in order to boldly engage in systemic knowledge and documentation of the world around, without bothering with such a stupid, exhausting and, most importantly, meaningless, work, extinguishing any fresh thought and real productivity, like "writing" a thesis for a scientific degree . The only thing that can spodvignut on such an ungrateful work – "social norms", according to inertia, consider it something really valuable.

You can beat yourself with a heel to the chest and protect the honor of a scientific uniform, arguing that the arguments below are irrelevant. This, however, can not be done, putting his hand on the heart and "in proud solitude" standing in front of the mirror...

...For many decades, and perhaps even centuries, a stable stereotype has developed, according to which being a scientist means having an academic degree awarded for a certain procedure for the preparation of a written document known in the depths of ages as *dissertatio* (research, report). Its main difference from other things is in the argumentation outlined by bibliographic references and, if it is a question of empirical experiments, then a description of their results with the method of obtaining is given. The name "invective" in the title of this section is not chosen by chance. Indeed, why not put the scientific standard not as a thesis but as an invective – for today, for a very numerous scientific brethren, to say a new word in science (and thus satisfy one of the "sacred" dissertational demands of scientific novelty) means to refute someone's previous ideas, calling them false or erroneous, offering something of their own, alienated from something alien.

I deliberately do not consider here the division in Russia existing for the dissertations of a doctor and the so-called "candidate of science" – a phenomenon that has developed in the Soviet industrial society, and other misunderstood concepts.

It is also believed that defended the thesis and received the so-called academic degree thus demonstrated a certain level of intellectual development compared with the level of other fellow citizens, as well as a higher competence in comparison with them, and therefore has the right to greater social benefits relative to them and a higher place in the social hierarchy.

Today, however, the possibilities of satisfying the requirements for a dissertation on the level of consideration and the volume of sources differ significantly from the satisfaction of the requirements of the medieval epoch in which the thesis itself became a cultural and economic value. In addition, the economic conditions that conditioned the thesis as a factor of social success in the period of the so-called scientific and technical progress that determined scientific norms within the framework of the "growth" paradigm have changed. Owing to the satiety of the markets at the world level and the limits of economic, demographic and other types of growth that are increasingly evident on the historical horizon, it becomes evident that science is exhausted in its well-known form, with simultaneous degradation of its institutionalized forms, one of which is a "scientific thesis" its

execution. It becomes more and more obvious that science is a kind of specialized, a kind of art of cognition, and in it, as in any art, the greatest perfection is achieved when the ratio (the dominant of today's science) is balanced by the virtue of the creative impulse. In connection with this, being considered as the art of cognition, scientific activity has corresponding criteria of excellence, independent of the forms and rituals of presenting results. That is, if in a certain area of interests or activity a language is formed that provides a maximum of descriptions of the observed phenomena within the framework of which stable explanatory constructions are formed on the basis of which justified expectations and prognostication are based (which is most systematically set forth within the framework of Lakatos' sophisticated falsificationism) there is the realization of scientific value as such. It is worth noting that, in the course of its development, the institute of science, existing within the framework of growth paradigms and scientific and technical progress, almost completely threw out the forecast as the main scientific value from consideration. Moreover, the author of these lines personally watched as representatives of academic science with foam at the mouth argued that the forecast is not the main scientific value. And still there is an important suspicion: the very historicity of science (of course, here the science of the "classical era", which began with the so-called "long XVI century") is implied, indicates the similarity of the processes occurring in it, both in the social institution and sphere of creative activity, processes, occurred in religion in the same "long XVI century." Of course, this is a topic of a separate, detailed and very interesting research, but this suspicion becomes more and more evident as the increasingly accelerated process of degradation of the "classical" world order and the associated process of transforming cultural foundations that for many of the scientist dogmas remain unshakable.

Today's precariousness of these circumstances reveals the fact that the level of personal, intellectual and cultural development, as well as professional competence, can not be reduced and defined solely by scientific status, is not (or rather less all the less) a criterion of success, adequacy to public inquiries and top of adaptability in the environment.

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Let us consider the circumstances noted in the order. So, we have the following objects of criticism of the thesis work as such:

- level of substantive consideration;
- the amount of sources covered;
- the general crisis of the paradigm of scientific and technological progress;
- emasculation of the creative component of science;
- emasculation from the scientific rationality of prognostication;
- the similarity of social processes in the science of the beginning of the XXI century to similar processes in the Christian religion of the "long XVI century".

### **Level of Consideration**

This level today is extremely low, and most scientific degrees are awarded to people whose achievements often turn out to be laboratory or production details. This is not to mention the fact that R&D centers and laboratories in the bulk of its focus specifically on production. The phenomenon is a consequence of "overspecialization", and was considered in detail by the inventor and philosopher R.B.Fuller in his books (in particular, "The Instruction for the Management of the Spacecraft Earth" and "The Grin of the Giants"). In general, he is talking about the fact that re-specialization is unnatural and does not lead to an increase in the adaptive skills of the individual, but when it reaches some degree of its own, and the community (a discourse about the division of labor is immediately recalled). On the other hand, the numerous data of historical sciencemetry (let me here be "inconsistent" and relieve myself of the reduction of concrete data) indicate that the degree of fundamentality of scientific discoveries in the total mass of outgoing world publications over the past 100-150 years has drastically decreased in the direction of particulars. In the meantime, the marked production-market, or rather the market ones, in those cases where they remained productive rather than redistributive, particular tasks require such a degree of efficiency of the expert and developer reaction associated with the analysis of products and trends, with which the long-term thesis compatible; accordingly, completely different formats of survey and analytical documentation are required that require special skills in combining the art of recording (the basic procedure for scientific documentation) with a generalization of the data obtained, which immediately turn out to be related to procedures for limiting subject fields and concepts, oriented to the realities of market niches,

opportunities and directions . It is possible that these new formats will form the basis for the formation of qualitative scientific documentation for the post-crisis future.

### **Amount of sources**

The scope of the sources covered by the dissertation work on virtually any scientific topic at the turn of the 20th and 21st centuries is such that there is always or almost always a doubt that any review of them, including the presence of a scientific adviser or an applicant in this or a related subject, will be incomplete . Of course, there are basic studies on topics, but, given both the growth of the number of topics and numerous publications on them, it is impossible to say anything based on the usual coverage of the manual "manual" documentation on the topics. Such coverage in terms of dynamics and resource costs is not comparable with the volumes of incoming scientific and technical data. And this is at the level of mere mastering of the material, irrespective of its reflection and transformation into new knowledge using the cognitive context of the researcher. Speech, again, does not go even about the deplorable state of Russian INION and VINITI (the monstrous underdevelopment of these institutions is the topic of a separate conversation<sup>3</sup>) – we are talking about the conditions for the provision of scientific communities with such specialized Internet resources of scientific information as library.ru, MSU Truth or international catalogs of scientific articles (again, irrespective of the discriminatory access procedures adopted in some of them). Mostly these are navigation-search engines, but not computer-readable scientific texts systems created as solutions within the framework of text mining and information retrieval directions. The creation of such systems with sufficiency, efficiency and complexity, not speaking about their implementation and standardization of work, is now only on the way, their bibliographic use in the Russian and world systems of scientific production as of early 2013 tends to zero, although the development of such solutions is a solid one academic direction. computer science. In addition, the versions of such systems for working with specialized languages of scientific terminology and slang, also superimposed on the structure of natural national languages, within which this terminology is used, is still a non-trivial task in the field of computer linguistics. Such a task has not yet been taken seriously, complexly, and, most

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<sup>3</sup> At the time of writing, the fire invaders at INION were not yet there.

importantly, projected and not put it – precisely because of both the own crisis of scientific standards and the more general crisis of scientific and technological progress, as discussed below. The processing of bibliographic data, taken as a norm of qualifying scientific work, also seems to become the system norm of post-crisis science – and this despite the fact that the relevance of such processing exists already today for almost any field of natural and human sciences, and without such work any conversations about the "relevance" and "novelty" of the theses submitted to the defense will always be in limbo. However, some solutions for these purposes can be applied today – in particular, we are talking about specific options for the automated system of semantic analysis of text arrays KernelMining, the development of which the author of these lines devoted several years. At the same time, there are other commercial and closed decisions of machine reading of Russian and foreign production.

### **The crisis of the paradigm of scientific and technological progress (NTP)**

The crisis of the paradigm of scientific and technological progress, and consequently of science itself as a social institution, which results in the formation of demand, is due to the achievement of the limits of growth and expansion of global markets for which the system of scientific and technical developments works, as well as the related division of labor system, leading, as noted above, to re-specialization. Moreover, the deepening of the division of labor system (and the system of separation of scientific directions directly related to it) is now impossible, not only because of the limits of expansion of markets, but also because of such a reduction in the cost of production combined with such automation that the Luddites did not dream. Moreover, today's automation of production is added by the mechanization (of course, automated) of management and decision-making systems, as well as data analysis and decision-making (see above); and all this – against the backdrop of the proliferation of portable and cheap (down to household) flexible production systems. And here we add a trend associated with nanoassemblers and other nanofabs, in the limit doubling the natural reality to a supernatural state, creating a world of new autopoietic systems of human origin. Indeed, today all these things are still a subject of scientific and technological developments, but their effectiveness is precisely what reduces the massiveness of solvent demand, and moreover, raises a specific question: will these, new forms of technological life be an object of research

rather than research? only creation? Rather, this way: will the exploration and creation of such autopoietic forms be parallel and conscious in the post-crisis period? Given that both the means of analysis, and the system of logging, reporting and decision-making, strive for maximum automation. Who will be the scientifically "learned" personality of the scientist in these conditions and what are the criteria for his qualification in these conditions? And what is it, it is asked, for science as the highest form of intellectual creativity, creating the intellectual elite and engaged in the "search for truth," which, in order to improve the qualification of the applicant, demands from him a miserable marriage of "relevance" and "novelty," quite like himself from an advertising specialist needs a marketing plan. Hence, the search for new aspects of natural reality is not due to the ability of the applicant to make an abstract contribution to "human cognition", but to identify in these aspects the phenomena and patterns that are subsequently calculated for technological reproduction and sale on the market, possibly as alternatives to those criticized in scientific publications other scientific theses and conclusions derived from them. But the trouble is that there are almost no markets left, and the science engaged in "searching for the truth" and converting the discovered phenomena and regularities into non-market technologies does not fit in with the paradigm of scientific and technological progress, and the associated formats of scientific competition and "novelty ". However, this also seems to apply to the tasks and prospects of post-crisis science, and today it is a simple statement that science in its industrial-market quality of the division of scientific work and the related division of specialization does not play any more an economic role.

### **Emasculation of creativity**

The question of the scientist's personality was mentioned in the previous subsection. In fact, emasculation from science of the creative component is a consequence of the reduction of the scientist's integral personality to an extras that satisfies or does not satisfy the requirements of "scientific work". At the same time, today, from the side of the "idols of the crowd," there are numerous disparate claims to science about the fact that it is not able to give recommendations in the context of systemic crises of subject areas. In particular, these are claims to non-economic constructs. But, in the first place, a qualified and scientifically graded specialist is often unable to make recommendations in

the conditions of such crises, since such crises, as a rule and mainly, are connected with a crisis of the dominant scientific paradigms and research programs that set the framework for the work of specialists of any kind. scientific degrees. This is the classic of the science of science. And secondly, in order to go beyond science, its criterial systems and principles of functioning, one must be more than a scientist. And this clearly blurs those for whom "scholarship" and "scientific", scientism, is the pinnacle of social status (although in actual fact it turns out that this status is purely economic – economic). That is, in order to solve the problems of scientific crisis, a man of science must be a creator, a versatile personality, greedy for such development and, probably, an Artist. Of course, with some share of the costs and contradictions of nature that take place here. That is, it is a question of a supra-rational, and therefore – a component of scientific activity that does not fit into disciplinary practices and is beyond its control. (The perplexity of some commentators of this process and the fears about the "erosion of scientific character" look strange-one can recall the theorizing on the limitations of formalisms that have become nauseous theorists.) But, since the scientific qualifications and degrees in question here exist within the paradigm of scientific and technological progress, Creative is declared "unscientific" and is thrown out of serious consideration.

In this connection, the well-known example of the 15th century is typical of the "personality-scientist-as-creator-or-someone-else" theme. It is known that Machiavelli dedicated his "Sovereign" Lorenzo de Medici, the Duke of Urbino (the grandson of Lorenzo the Magnificent). The "Sovereign" himself may well be considered a political work with a rich argumentative base. It is also known that as a prototype of the ideal sovereign, Machiavelli took the filthy bastard and scoundrel Cesare Borgia, abominable even by the standards of those years (from the participation of this name in the affairs of the Holy See, the Catholic Church still can not be washed), which, as is also known, was written one of the best dissertations in jurisprudence for his time (which did not prevent him from being such a person as he was, and is an excellent example of the beginning of the movement of science towards NTP, within which the irrespective of science from to morality). Lorenzo the Magnificent himself is known more as a patron, a poet-writer of burlesque verses, an outstanding diplomat and, incidentally, as one of the best rulers of his time. Much less he is known as a scientist, although he

certainly can rightfully be considered one of the founding fathers of ruinistics, which he in fact was engaged in his youth with the great architecture theorist Leon Alberti on their trip to Rome. It is not known that Lorenzo wrote any theses, although he was obviously engaged in studies, and very motivated (connected with the search for prehistoric cultures), like many in his family. Just like [re] the founder of the University of Pisa, he may well be considered the organizer of science. The curious fact is that Lorenzo the grandson hardly needed any dedication and any scientific argument as to what the sovereign should be, all the more so in the case of Caesar Borgia, for his grandfather was the ideal sovereign (as did the grandfather of his grandfather Cosimo) , but he acted not as a unifier of many lands, but as a guardian of one. Why did Lorenzo II choose as an example some scoundrel with a scientific degree, rather than glorious ancestors who made much more contribution to science and culture (and in the practice of public administration that did not concede to it)? Is it because Borgia was a titled, "qualified" duke, who also wrote "scientific work" (which, incidentally, is still being studied in universities all over the world as a model of scientific work for his time) and his ancestors – actual, but without a "qualification degree"? Well, Lorenzo II still "learned" from Cesare important lesson – like the "sovereign", fell ill with syphilis, which brought him to the grave (unlike Lorenzo-grandfather, who brought to the grave hereditary metabolic disease). So what was the "Sovereign": dissertatio about the best image of the steward with an "ostepenennym" person as an example, or ingenious in its primordial product of "cultural industries" of a still barely emerging (pre) industrial era, aimed at tickling the sense of status of a single-element target audience? Whatever product "Sovereign" was, it worked, as history shows, very effectively, spreading beyond the then Italian. For sure, Lorenzo the grandson loved science with love, inculcated by his ancestors, and honored people of scientists, but hardly had the opportunity to distinguish between the cognitively valuable from being given out for such, at least the latter and possessing all the signs of scientific research. He did not have enough attention to the past of his family and his view of the future, the question of the consequences and limits – historical consciousness, in a word. What for? After all, the Medici are now focused on the heights of the social situation, the courtyards of Europe! This is where the gap lies with what the previous generations originally sought. By the way, does the "Sovereign" say anything about the ability of "exemplary ruler" to such attention? I hope that in post-crisis science they will

finally learn to distinguish such things, but whether it will be done or not, time will tell.

### **Fear of forecasts**

In today's environment of scientists with whom I had the honor of a lot to communicate, indeed, there is a panic fear of forecasts, unless it is medical predictions or predictions of the behavior of extremely understandable, effectively computable and intuitively comprehensible systems. One gets the impression that many modern scientists are more important than the status, due to the rituals of formal conditions (especially in the humanities), rather than the belief in their own abilities to adequately describe and explain the subject of cognitive interest. They are constantly afraid to be wrong in their forecasts, to make mistakes in some way, because they are "experts" and "understand" in their subject area (or rather, mostly in the bibliography on it), but they do not see the whole world with an emphasis on the studied area, and in general, according to my observations of these individuals, do not dare to live and struggle – that is, to use knowledge to foresee favorable and unfavorable opportunities, that is, predictions, for oneself and others. Accordingly, disputes about acceptable languages of description and adequacy of explanatory constructions become nothing more than salon disputes, in which the one with the language and designs wins is victorious. About how it is adequate, as well as about the fact that the formation of language and explanations in a new or changing objective reality is invariably accompanied by stuttering and "strikethroughs", there is no question – after all, the main thing is that investors give grants for what looks "smart" and beautiful"! Well, probably most of the scientific donors in Russia and abroad are concerned not with the development of cognition, in which they invest, as an adaptive means, but something else. However, it is the reduction of scientific rationality to the emasculation of prognostication from it as the highest value that leads to the ritualization of scientific activity, which brings the latter closer to religion. Indeed, what is the difference, what is described or explained by scientific discourse, if we are not responsible for predictions? But it is precisely this responsibility that is the most genuine responsibility of the scientist, and the renunciation of "scientific elites" is quite legitimate to put it on a par with the denial of responsibility to the society of the political and business elites of the "NTP countries" in the last thirty years of the twentieth century. Cognition

(including scientific) is only a means (but not a goal), to the development of adequate expectations. Post-crisis science should remember this long-standing and healthy value.

### **Religious character of science**

A lot has been written about the religious and philosophical origins of European science of the classical era, including a compelling and very interesting academic collection in Russian. This topic, in particular, includes the question of how the calculation of infinitesimal numbers has occurred from the question of how many angels will fit on the tip of the little finger of Thomas Aquinas. Here I would like to draw attention to another circumstance, namely, to a certain similarity of social processes (including the dynamics of value attachments) associated with the status of science as the cultural basis of life in the period of total crisis of the beginning of the 21st century, analogous to the processes in the Christian religion as a cultural basis life in the period of transformations and crises of the "long XVI century". It can hardly be said that these processes began in full measure and are clearly visible, but their signs are noticeable. In addition, as it was said, this is the topic of a very detailed, separate study, lying at the junction of the stories of religion and science, so I placed this item at the very end of the invective, and I will dwell on it in the most general terms. The fact is that science, or the "scientific view of the world," today not only determines the mass picture of the world, just as the once-mass picture of the world was defined by religion, but also by the skepticism of the most diverse layers towards this world picture (both in terms of integrity, and in terms of its individual subject parts), and the search for its alternatives, is today comparable with the skepticism, doubts and shifts that took place in the era of the Reformation. That is, today it is the institute of "science of scientific and technological progress", and not religion (including "Christian science"), as it was before, is the predominant area of these transformations. And it is also not a matter of the general process of archaization of consciousness and cultural forms – such archaism, rather, is more "love of the archaic" than the actual archaization, a stop at the crossroads, and reflects a general crisis of consciousness associated, among other things, with those discussed above five circumstances. In my opinion, in this connection, it would be more productive to consider not only the ritualization of science, the tightening of the administrative and status hierarchy in it, and the transformation of some

scientific schools into "groups of kamlaniya", as religious signs, but rather as a common place in the social system science, embodied in specific individuals, buildings, resources, finances, as well as the economic and cultural benefits (or harms) brought to society, compared with the place in the social system of religion in the Renaissance. While in many branches of science stagnation and a systemic crisis are observed, but in order for the Reformation to arise there, the emergence of an appropriate force capable of making claims and rights both on the resources occupied by the present science and on the place in the system of social values it occupies still top, but increasingly contested by religion in its archaic forms). Since science is heterogeneous in branches and aspects, the presentation of rights and claims will be heterogeneous, but this is quite a conflict, but how tough it will be depends on the flexibility and continuity of the changes. It is possible that this will be a flexible transition of science to a new, "post-scientific" state, just as, according to the Russian conspiracy historian A. Fursov, the feudal aristocracy "flexibly" passed into the ranks of the aristocracy of the capitalist era, which was not the case in the transition from antiquity to feudalism. One way or another, but the post-crisis science of the future will have to comprehend the possibilities and options for its reverse transformation and the attainment of the "religious" elements and forms observed today. A sign that this is so is the reduction in the "developed" societies of the value of scientific statuses, first of all – the desacralization of the intellectual status of a scientist who knows and understands better and more than other mortals. In many respects this is a result of the realization that today's scientist is only a part of the establishment, of existing economic mechanisms, but this conviction is only reinforced by the exhaustion of the social model within which science occupies a dominant position. In this connection, the acquisition of a scientific degree becomes similar to the receipt of a priestly rank, and is viewed among the inhabitants as a predominantly personal achievement, connected with certain convictions and adherences of the individual person, but not as a special, socially significant value. Moreover, like a priestly rank, the academic degree today more determines the typology of the person and his social environment (which, in general, was always), rather than the ability to solve any vital issues of any level. All this, again, is largely due to the circumstances noted above, but the result is the historical situation, when today's science as a social institution begins to acquire features of religion as a similar institution of the "long XVI century" era.

In fact, I do not want to say at all that dissertation as a genre of scientific work does not have the right to exist or does not bear a general cultural and cognitive value. I want to say that it does not carry value as an exclusive criterion for the qualification of scientific activity and, quite possibly, will not carry it in the future.

### Well, how is it ?!

With my invective, I tried to demonstrate the systemic problem of the building of the currently scientific nature of the European type, and to determine, based on which problematic conditions, the scientific character of the post-crisis world will be formed. At the same time, since the religious aspect of the present science is designated in the invective, and the similarity of its state to the state of the Catholic Church of the 16th century, it is quite possible to consider this text as an analogue of the "Luther theses", whose character can be a common starting point towards a new understanding of the forms and methods of systemic cognitive activity. The statement of the chairman of the Higher Attestation Commission Filippov on the beginning of the experiment, the essence of which is the right of higher educational institutions to award scientific degrees to scientists without writing a dissertation, and the experiment itself, can be the first steps towards returning to the university the status of a genuine source of science in society, since it is there that a true meeting takes place knowledge with ignorance (becoming soon scientific ignorance), the student and teacher are mutually balanced, and the explorer's rush is formed in the absence, but not availability, in freedom Mr. interdepartmental field. Perhaps well, if this practice spreads to other universities in the world, where scientific tasks have the opportunity to come into contact with life, and where tabula rasa has no less significance than what can be written on it.

Just do not wring your hands and shouting that this experiment is another stage in the collapse of Russian science, after the reform of the Russian Academy of Sciences. Of course, against the backdrop of the second wave of privatization, the fat-swarming thief takes away the remnants of the infrastructure and the system of cultural reproduction of the country and, perhaps, this experiment is in the mainstream of this process. But this reform, no matter what it may be, is the deuce given to academicians by History itself. And such an experiment can be a

means of controlled search for a solution to a significant problem, that is, a phenomenon of scientific activity.

## In continuation of the theme of protestantism in science

I do not intend to seek Luther's or Berkeley's laurels for myself (I am content with my own), and therefore I immediately clarify that this is not a matter of "scientific Protestantism" (this expression also revolves around the language), but about the Protestantism of science or Protestantism in science. Actually, this concept arose in connection with a rather brief (but no less, in my opinion, complete – for those who are able to agree with this on their own experiences of observation and reflection) by the similarity of processes in modern world science, not only the Russian reaping neoliberal fruits of one's self-conceited self-righteousness in the predatory reform of the Academy, the processes that took place during the Reformation era of the Christian Church of the Western World, which ultimately resulted in the very scientific nature of the classical epoch.

At that time, Protestantism led to monstrous quarrels and bloodshed, and to the redivision of church (and not only) property. In connection with this, with the relatively peaceful "reform of the Russian Academy of Sciences" (RAS) taking place in Russia, and also the fact that the things indicated in "Invectiva" have a common significance that goes beyond the framework of Russian reality,

- are similar "reforms" possible in other countries of "classical" science;
- will they be just as "peaceful" or, conversely, highly controversial; and
- will they in general be associated with a kind of Protestantism, as a systemic phenomenon within the institution of science itself.

My preliminary answer is positive for the first and third questions, ambiguous – for the second (the final answer, probably, can be given only by looking at the results of real events).

First of all, there are significant differences between the RAS and other similar institutions, which are rather clubs of venerable scientists, rather than expert organizations with a huge resource base; many representatives of Russian and foreign science spoke about this, and there is no point in dwelling on that separately. The fact that the true essence of the reform of the RAS should be its transformation into such an expert organization, with the established legislative responsibility for the quality of the examination, including the forecast, I have already written. The destruction of the European academy clubs would simply be absurd, because they can not represent any property or public interest. Another

question is that the reformist "stupidity" in the world can affect not only individual institutions financed by the state (analogues of the Ranovsky), but universities as traditional hotbeds not only of innovation and education but also of youth unrest, which they have known since their appearance. This possibility causes suspicion, since the power holding the comprador bourgeoisie of Russia is prone to parroting to reform society through the patterns of colleagues from the West, and the twisting of student self-management in the Moscow State University, starting in March 2012 (in connection with the understandable fears of "color" processes) there, no less, the basis for the resigned "reform" of this, more viable, environment, pushing the perplexed youth and the teaching staff into the shadow opposition, which is gaining more and more nationalist character.

Actually, the degree of "conflict-free" reforms – that in Russia, what in the world, will be determined by two circumstances:

- a catalyst for crisis economic processes caused by the deterioration of the situation of existing "middle class" social groups, tied to the level of higher education and the corresponding categories of communication;
- the degree of pressure on the part of alien ethno-confessional groups whose aggressive presence in the country is unrelated or radically divergent from local educational and cultural values and standards.

In turn, the degree of intrascientific protest activity (actually motivated by the "Protestantism of science") will be determined:

- the ability of the exponents of such a protest to see, or at least indicate, the prospects for solving systemic problems of scientific knowledge;
- an unchanging desire, based on the consciousness of its own civilizational responsibility, to translate these perspectives into life, remaining within the limits of, if not the modern scientific establishment, then, at least, of high intellectualism;
- understanding of the possibilities of productive work with the use of resources of an exhausted academic environment.

In this sense, it seems productive to transfer experimental scientific equipment and resources to universities, with the simultaneous formation within their framework of experimental sites, workshops and local technology parks, designed for medium and small businesses (SMB). Such a "disentangling" of property will

be a correct transfer of resources, and will have an effect if not scientific (although in a normal system of internal grant-receiving, as a form of investment in the system of scientific production, it can quite possibly be so), then, at least, educational. In addition, the transfer of scientific and industrial and other academic resources to the educational environment will allow them to be kept in a "stand by" mode for the benefit of the crisis, including the NTP crisis (although I realize the magnitude and totality of such a crisis, I'm talking about preservation). And certainly will be bloodless and adaptive.

However, regarding the lack of blood, it is worth considering that scientific truth and adherence to it is something other than religious truth and adherence to it, respectively. And, with the frequent similarity of the self-sacrifice of the scientist and the believer, as well as the fact that the new European science has arisen from the search for scientific theology of Western European Christianity, the motivation behind them to control processes and resources today is completely different – at least, the idea of the vitality of such motivations is different. Yes, and passionarity today is a slightly different branch of the Abrahamic religion, with all the specificity of the latter's attitude to scientific knowledge and technology. On the one hand, there are not universities, but madrassas (their own tradition), on the other hand, some countries like Iran show interesting results. We will see.

Be that as it may, now it is appropriate to talk about the fact that in general there is repeatedly referred to the neoeconomic concept as a scientific one – if in general, in the light of what has been said, it is appropriate to talk about science in the usual sense.

## **Scientific and methodological aspect of neoeconomics: among schools and directions**

### **Neoeconomics as a science school**

The main issue in this topic is how to make neoeconomics a scientific school (Nauchnaya Shkola – NSh). In other words, how to transfer neoeconomy from its current state to NS state. Questions were posed: what is a science school, how it is created and how it is broadcast<sup>4</sup>.

To answer them, you need to clarify:

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<sup>4</sup> This material was prepared in due time by order of the Scientific and Research Center "Neoeconomica".

1. phenomenon of the scientific school;
2. problems of the formation of a scientific school;
3. The current state of neoconomics, which includes the objectification of theoretical constructions and organization of activities.

In this case, we mean, first of all, the school as a scientific direction, around which the scientific collective (formed under the scientific project, in terms of neoconomics) is formed, and the organization of the educational process.

As an initial message, one can accept the fact that neoconomics exists as a research program (Issledovatelskaya Programma – IP).

Since neoconomics considers NTP as one of the key moments in this capacity, one should immediately raise the question of whether any of its specific, different from the already existing and widespread ones, is possible about the phenomenon of NSh, to make the basis for the formation of neoconomics itself as NSh. And this means that first you need to answer the question of whether neoconomy needs such a specification of this phenomenon.

At first glance, it does not need (at least here). Firstly, because its founder O.V. Grigoriev focuses on post-positivist developments in the demarcation of science, which are associated globally common ideas about the formation and development of scientific communities; secondly, because the very phenomenon of scientific schools and philosophical doctrines occupies (at least, should occupy) a fairly stable place in the world history of thought, and requires only clarification on a number of aspects.

However, the six pairs of concepts of science (quite a neoconomic one) introduced in the next subsection are a conceptual medium in which the scientific school should be interpreted economically, that is, as a phenomenon arising in the conditions of a certain flow of orders for science and providing, to varying degrees these orders of those who are more or less committed to this school.

In this sense, it would be more productive to consider what and from whom today we know about the phenomenon of scientific schools in general, taking from them something useful for neoconomics as a program and SIC "Neoconomics" as an organization, leaving the consideration of the theoretical

interpretation of the phenomenon to the second queue. Thus, at least, it is easier to get rid of the semantic self-applicability traps.

What is known today about the phenomenon of the scientific school, if we generalize all the positions relevant to it, positions?

First of all, the fact that the scientific school is initially formed as 1) an atomic social network with a leader of opinion at the head and like-minded people around. Members of this social network:

- share an interest in the subject and ways of interpretation within the school;
- share the basis or most of the positions of the opinion leader;
- form a regular discussion platform;
- develop activities in the framework of the main provisions and paradigmatic attitudes of the school.

The main aspects of the scientific school are:

- typical cycles of its existence;
- ideological transformations and continuity (related to the first aspect).

Within the framework of the latter, the problems of distortions and discrepancies affecting the cycle and development of activities within the school are revealed. It seems that this problem is eternal for any scientific school or system direction of thought, and here we can recall a lot of examples where such discrepancies were even central, speaking under the same name: if we leave Grigoriev's situation aside. Khazin, you can recall the relationship of Schumpeter and Böhm-Bawerk on the essence of capitalism, Pierce and James on the philosophy of pragmatism or Fuller and Snelson on the mechanics of Tensegrity. The normality of such situations in scientific production was pointed out by M. Polany. An example of another situation in which the process of transformation-continuity does not reveal the problem of discrepancies-distortions is the development of Scheler's aesthetics on the ideas of Husserl's phenomenology, as well as a host of other historical examples that need not be cited here.

One of the key features of the scientific school (in addition to the listed common places) the authors writing on this topic call 2) the informal nature of the relations of its participants (M. Polany, K. Lange), even for cases when these participants

are engaged in formally different institutional institutions of science. In this sense, in my terminology, the school is a more "university" phenomenon than "academic" (see the article "History of European technology and neoeconomics"). Important differences of scientific schools from other scientific communities are 3) the commonality of the language used – the conceptual apparatus and ways of interpreting the subject, and 4) the methodology of interaction with the subject, since different scientific schools working with the same subject may differ in language and methodological approaches.

If so, neoeconomics is already a scientific school at the initial stage of its formation, and its task is to expand the field of experts adherent to it and deepen integration into various social structures<sup>5</sup>.

Already on these links you can see that the theme of the phenomenon of a scientific school seems to be worked out, and the bibliography is extensive. However, before any acquaintance with it, the question immediately arises of how much or all of the noted sources take into account the specific practice of public demand, in response to which scientific schools are created and developed. This formulation of the question is purely neoeconomic, and is expected to contribute in some way to meeting this demand (again, given the fact that neoeconomics itself claims about science as a whole). This means that with the task of solving current problems (some, it is not yet clear which, most likely, connected with the arguments about clusters in the urban environment of O.V. Grigoriev), representatives of the non-economic school in the field should cope. But first and foremost – the Center "Neoeconomica" itself.

In any case, as a scientific school, neoeconomics appears to be an informal scientific and social system with its intellectual center and periphery of reproduction; in other words, the system of distribution and development of non-economic representations, invariably associated with activities based on such representations. In particular, this means that the conclusions and recommendations made by the Center "Neoeconomics" and neoeconomics, as,

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<sup>5</sup> The bibliography on the topic of scientific schools hangs in one of the first links of the search output and, on the whole, is meaningfully consistent with the mentioned criteria here: <http://www.prometeus.nsc.ru/science/schools/biblio/general.ssi> (for 10.2015), or here: <http://www.prometeus.nsc.ru/science/schools/docs/scisch.ssi> (for 10.2015). Separately, it is worth mentioning the work of E.Z. Mirskaya "Scientific schools as a form of organization of science: Sociological analysis of the problem" [2].

respectively, the scientific school and research program, should be somehow broadcast to the interested parties, and in a clearly substantiated form, and act as the basis for the activity, that is to be effectively applicable. In terms of the organization's prospects, it should certainly be a certain structure combining the organizational components of the ARPA-like "think tank" with the function of the fund involved in applied issues and the research center itself engaged in the theoretical work of building and providing the school.

One of the key problems in the translation of the scientific school is the factor of personal or implicit knowledge, identified by the critic of the concept of rational science M. Polany (who perceived the ideas of the phenomenologist M. Merleau-Ponty) – not formalized and able to be received through training or experience (the concept caused criticism and accusations in the irrationalism of K. Popper). That is, a person knows more than he can object in the language. In this sense, the task of the scientific school of neoconomics is to work in the direction of the consistent objectification of this knowledge (the leader of opinions and its atom) in its own specific conceptual apparatus, with the simultaneous development of this apparatus, and the further combination of the results of this objectification into a single whole. The confused nature of the narrative in O.V. Grigoriev's lectures is most likely caused by an attempt to define his implicit knowledge: as requiring new means of describing non-trivial scientific phenomena and situations, and relating to many years of administrative experience.

According to Polany, the depersonification of knowledge is a false prerequisite for its objectivity (on the other hand, if it is an objectivity, it makes sense to recall the criticism of the subject-object paradigm of M. Heidegger). In connection with this concept, Polanyi proclaims the inadequacy of book science and the requirement of interpersonal interaction within the scientific community (in fact, he owns the introduction of the concept of "scientific community" into circulation). In addition, he proclaims the indispensability of the scientist's personality and the inadequacy of the presence of faith in a world built on science (which also fully corresponds to my own maxim that the essence of higher education is a combination of the culture of faith with the culture of desire, where the culture of knowledge is only a means). In the sense of the importance of the culture of scientific faith (here it is worth recalling the words of V.I. Vernadsky about the fact that Orthodox priests in Russian science did not climb and could not be there

authorities, unlike European science, where their influence in the system of scientific reproduction was strong) and the personal attitude to scientific production, the trust to the recommendations of the scientific elite is significant, despite the fact that conflicts between its representatives, as was said, are natural for science itself.

It is worth mentioning separately (but it is hardly worthwhile to dwell on them in detail) and T. Kuhn's throwing about whether NSh enters into the system of "normal science", in which the paradigm dominates – the key concept of his naukovedic position: before its subsequent revision, he believed that , as soon as the paradigm in science takes precedence, the scientific school becomes obsolete.

In connection with the concepts of the university and academic formats that institutionalize European scientific research (see above), which I introduced into non-economic circulation, it is worth paying attention to the curious distinction of the so-called. "Classical" – created on the basis of universities, and "modern" – created on the basis of the scientific research institute (NII, for Russia – organizations in the Academy of Sciences) of scientific schools, presented in 1973 K.A. Lange. Indeed, the very notion of a scientific school is concatenated by scientific and educational tasks, whereas the academic "kunst" environment is scientifically applied with the bank of knowledge and rarities, initially seemingly not connected with educational tasks (however, again, given that the second almost immediately arose from the first – see *ibid.*). In this sense, the NS of a modern type arises either as a secondary phenomenon with respect to already existing scientific problems, or as a way out of the scientific and educational environment into the applied field of the collective under the leadership of the opinion leader (as it was in the times of the USSR, when whole institutions with all resources were created in this way ), but not initially in the educational function, while the classical NS, being created in such a function initially, through education not only translates knowledge, but also produces them.

Of the fundamental works of recent times, it is impossible not to mention the thesis for a doctor's degree by T. Pavelieva "Scientific schools in the system of science: philosophical analysis" [3].

Acquaintance with the author's abstract makes it clear that the very theme of dynamics and the life cycle, in particular – the prospects for the development of

scientific schools, the process of their formation and development, is poorly developed in the world literature – if not to say that it is not available at all. In many respects this is linked by the dissertator with great pluralism on this issue and the lack of a unified methodology. Immediately it is worth noting that in the present paper, it seems that no economic aspect of the phenomenon of the scientific school, which neoeconomics postulates for the phenomenon of science as a whole, is considered – in any case, it is not stated in that part of the author's abstract that deals with methodological grounds.

Also, the author notes the important property of the modern phenomenon of the scientific school, namely, that today it is mainly the Russian, or rather the post-Soviet, phenomenon, where scientific collectives are presented static, being locally located, whereas foreign scientific teams are mostly mobile, *«hence the special interest in "invisible colleges", "solidarity groups", and not in scientific schools that presume some stability of the scientific collective»*, but because, according to the author, recently in the Western science literature after 1960-1970. it is almost impossible to find materials about scientific schools, if it is not about schools of the past. In this sense, it is really interesting to compare this consideration with what OV Grigoriev said about the difference between the educational systems of the USSR and the USA: the formation of an army of "combinatorial specialists" for solving specific problems on the basis of an already existing PTM is quite compatible with the rapid self-organization of experts - universers who are going to work on a grant in a certain place and working with some environment of scientific ideas of colleagues sprayed in the Internet space. Therefore, an important factor in the "stability" of the Soviet-Russian scientific schools of collectives is the lack of in-country and international mobility of scientists, which is a consequence of a similar general social phenomenon and considered by neoeconomics in order to clarify demographic and urban processes.

Another important point in the understanding of the scientific school in Pavelieva is the reference to the works of M.G. Yaroshevsky, edited by him in the 1970s. a collection of "Schools in Science", where Yaroshevsky himself presented a threefold understanding of the scientific school as:

- scientific and educational team;
- research team;

- the scientific direction.

Meanwhile, for Center "Neoeconomics" the choice of one or two of the three is unlikely to be acceptable: it is assumed that all three aspects of a scientific school must invariably work together; although for the author of this dissertation, this difference is one of the initial and key. However, it is immediately evident that the basis of any school as a collective in its specificity should be still a scientific direction. Most likely, this is the difference between Yaroshevsky and Pavelieva, when she claims that the scientific school performs research, innovation and educational functions in the system of science.

In terms of the periodization of scientific schools, the work contains data that would be interesting to compare with the periodization of the history of science P.Druker:

*«Scientific schools in the history of society initially arise as scientific and educational schools, whose main task is not so much production as the translation of scientific knowledge (although it is possible to speak about scientific schools before the cognitive institutionalization of science is conditional). Scientific schools as scientific collectives are formed at the end of the New Time, which was associated with the complication of the very processes of scientific research. With the transformation of the conditions of scientific activity, scientific schools. In the XIX century and until the 30-ies of the XX century, the formation of scientific schools on a disciplinary basis. In the 30-50-ies of the XX century nonclassical schools were formed, specialized scientific research institutes and laboratories appeared, on the basis of which scientific schools appeared; 50-80s of the XX century and up to the present – a stage of institutionalized, including interdisciplinary scientific schools in Russian science and the transition from scientific schools to other organizational forms of science in Western countries».*

Here we need clarification about the way in which we should talk about the translation of knowledge. According to the position that I was represented in the section "History of European technology and neoeconomics", the first scientific schools in the famous historical retrospective of European society arose in the Renaissance not just under the task of translation, but under the tasks of the "archeology of knowledge", so to speak, and actually in this and that archeology there was a scientific search as a special hermeneutical work. The broadcast itself was the result of preliminary activity, and not the very initial activity, for the broadcast was not originally given as something systemic and complete. In this sense, Center "Neoeconomics" strives to be a scientific school, it appears exactly in

such a Renaissance quality, because the fact that at the time of the formation of this research program was the sum of postulates widely broadcast in the educational environment to young economists and specialist- subcontractors as a norm, ceased to work and required a radical revision for the entire 300-year history of science. This kind of archeology of knowledge is worth paying attention to when analyzing scientific schools.

Also, Pavelieva cites a difference in the significant internal and external factors of the development of scientific schools in the general system of science. Neoeconomics postulates the dependence of the science of the NTP era on the structure of demand in specific historical conditions, that is, on external factors, and on the way the division of labor within the system of scientific production. At the same time, the scientific schools about which Paveliewiev is speaking are primarily scientific schools of the NTP era, and reasoning about them is conducted in the method of description corresponding to this epoch. The general conclusion is the following:

*«As can be seen from the above, the external factors (the logic of the development of science, the cognitive relations between theory and experiment, etc.) are added to the external factors when choosing the object of research (social needs and interests). However, all this should be "missed" through the prism of the socio-psychological perception of both the scientist-founder of the scientific school and the scientific collective of the school as a whole. It can be argued that it is the combination of external and internal factors in the aggregate that makes it possible to represent the multifaceted nature of the activities of scientific schools. Otherwise, its analysis looks one-sided. In general, the epistemological regularities in the formation of research objects in scientific schools are associated with the logic of the development of scientific problems».*

My own conclusion about the possibilities of neoeconomics and Centre "Neoeconomics" to be a scientific school is the following. In general, if we are talking about NSh with regard to the current task of changing the expert consciousness of the representatives of the economists' community as a key one, then productive is the consideration of K. Lange's dualistic position on the issue of NSh in the "nomadic" interpretation of Western scientific groups in the sense of T. Pavelieva, in the framework of the general urban pathos of neoeconomics aimed at developing the idea of new settlements as places of the most probable creation of alternative PTM and productive scientific concepts.

### **Three-place attitude of money, knowledge and PTM is an important moment of neoconomics as a research program**

The knowledge economy is not only lazy, this concept has already become a common place for the most diverse futuristic arguments of this day. For example, economist, wit, politician and rebel M.G. Delyagin often likes to ascertain that today technologies are beginning to be valued more money – only now does not find time to explain the mechanism of this transformation, remaining on predominantly some near-the-world-style world-system positions. In the research program of the neoconomics O.V. Grigoriev, who at one of his seminars in early 2014 came up with the idea of money as a "substitute" for knowledge, there already exists a conceptual and thesis apparatus that has been worked out enough to clarify this point.

Neoconomics says that interaction of reproductive circuits is carried out through financial "intercellular substance". She also says that industry can exist in the financial sector of the economy as part of it, measurable profits, as well as banks can exist in the real sector as a non-profit loan and savings bank. In the framework of neoconomics, I use the notion of PTM, whose roots I tried to clarify in general terms when I spoke about the difference in the roots of European science of university and academic types, while simultaneously outlining the approach to understanding the development of PTM in the sense of the function of consumption used by neoconomics Tornqvist – on the one hand, and the main formats of the new European science, as the main institution of formation of knowledge by the socium of the capitalist type – on the other hand. Another point concerning the nature of money from the point of view of neoconomics was clarified by Grigoriev in "Shaninsky" lectures 5 and 6, and I was interpreted in a semiotic sense, taking these lectures into account, in this section further, where the question is the semiotic nature of money.

It is also worth mentioning the concept of V.Easterley about the growth of knowledge regarding the division of labor between poor and rich economies. If neoconomics states that in a small country the division of labor system (SRT) can not grow to a large level, the authors of the concept of knowledge state that knowledge similar to SRT can. That is why supporters of this concept sound more optimistic.

Also, neoconomics leaves out of the box the reasoning about PTM in the subjunctive mood, but does not deny the importance of this reasoning, since it is unclear in principle how a more effective technology could affect people's lives, gaining the advantage over time and not being overwhelmed by the less efficient technology provided by already established and self-sustaining, self-defending, division of labor system. Here, reasoning is possible in terms of technological potentials, which are not only the possibilities of using the original PTM, and, further, the creation of a new PTM within the framework of the income-consumption relationship applied to production, but also the possibilities of constructing alternatives to the mainstream of scientific schools and theories.

In the light of the foregoing, if money is a sign system, the function of which is a specific semiosis of prices and values coming from the distribution function of the results of the combination of the PTM and, in fact, the knowledge system of any level producing the PTM, then the knowledge itself is a condition for filling the "proto-warehouse", thanks to which this distribution is possible by means of coins. If the non-economic protocol is more concretized in time, and correlated with the Rudolphin type of scientificity, we will have a kunst-collection of scientific information replenished to certain limits, including the limits of novelty, assimilation, demand, etc. things identified in the framework of "invective against the dissertation," to which science approached the turn of the 20th and 21st centuries. As already mentioned, the two original foundations of scientific competition were the novelty (exclusiveness) of discovery and the criterion (standard) of knowledge. And if the first is connected with the principle of "new knowledge – a new (potential) market", then the second is an immediate condition for the monetary measurement of knowledge, which has a legal expression in certificates and licenses. It is the latter that guarantee the conversion of knowledge into money and the means of channeling money investments into the examination. At the same time, certificates and activity licenses form the point of intersection of the legal and monetary systems for managing public processes (which is also the subject of neoconomics) and, in the case of a regular state, the sanction for issuing them invariably has the character of scientific expertise based on standards and criteria. And, of course, the sanction for the conversion of knowledge into money initially has a state character, since the magnate-philanthropist in the first case of scientific

competition is more important than the exclusivity of the effective result, rather than the standardized reception of it – in the second (although, of course, as repeated examples show, an exclusive result may be obtained in the course of standardized scientific routines). This circumstance, by the way, allows historian conspiriologist A.I. Fursov to assert about "two types of science": "conscientious profane", and that "for which good money is paid to customers of super technologies"; However, in essence, these are two sides of one tradition: the university "science of discovery", without being related to the supertask, bears its know how to profit to the capitalist who sees in this know how the moment of demand. This is the science of innovations, the science of what is "young, and early." This is what, combined with finance, ultimately deepens the division of labor systems and destroys not in-depth. In its turn, the academic "science of standards and licenses", not being connected with its original, Rudolphin, super-goal, is aimed at the predominantly state support of professional spheres and public institutions that ensure the right to extract income from knowledge and competencies; in this latter case, there is a salary for the application of knowledge that embodies the labor of receiving them (primarily, development), including the use of means of providing this labor, obtained from PTM also on the basis of knowledge obtained by labor. The knowledge and competences acquired, in this case, by scientific means, by their *familiarization* (training), grow in the price of training them as the demand for their application in the society grows. What is radically different from the knowledge acquired through the *formation* (fundamental or combinatorial – in the sense of P.Druker), since those can not be obtained within the routine of the educational process. At the same time, if we accept that the system-scientific activity (and the system-scientific formation of the PTM) is carried out collectively, the labor of formation or acquisition of knowledge accumulated in the sources of scientific documentation, in the sense of the non-economic division of labor into natural and technological, those, and others, because in science are important as creative predispositions and favoring life experience, and the systematic routine of scientific teams.

So, we have the following object-conceptual oppositions on various grounds, in the coordinates of which it turns out to be possible to speak about the knowledge economy:

- on the basis of knowledge acquisition – formation and familiarization;

- on the basis of scientific (science intensive) competition – effectiveness and criteriality;
- on the basis of the method of financing – investment-venture and distribution-industry;
- on the basis of the division of scientific labor – natural and technological;
- on the basis of the formation of PTM – natural and system-scientific;
- on the basis of labor-intensive technologies – high labor intensity and low labor intensity.

Concerning these coordinates, one can talk about the ways of developing science, similar to the ways in which the division of labor systems are developed, by speculating on the possibilities of realizing this potential in poor and small countries (according to the above optimistic hypothesis of V.Easterley).

The main trend in the development of technology over the past several hundred years is the reduction in the labor intensity of technology; However, with the growth of unemployment and the emergence of a resource deficit, the task of creating production and technological chains in which a scarce resource would be expanded by labor, and the chain itself would contain a significant number of working positions, is actualized. At the same time, increasing the technological complexity does not necessarily imply a decline in productivity, since labor is ultimately divided; in addition, more labor-intensive technologies can be new, that is, by going in exchange for the old, to be more effective<sup>6</sup>.

### **The question of approaches to science in neoeconomics in the aspect of the concept of the model**

Before continuing, I would like to say that some of the topics put on hold can become relevant again under the influence of radical research programs, brought to life by the stringent demands of the times.

In the course of studying the concepts of "neoeconomics" O.V. Grigoriev, set out in 16 lectures in "Shaninka", I had arguments that, in my opinion, are very important for understanding the scientific and methodological foundations of these

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<sup>6</sup> An example of a technology with labor intensity reduced in the framework of the entire economic system – a tractor, an example of a technology with increased labor intensity (again, within the whole system) – nitrogen fertilizers (for their production it is necessary to create a high level of division of interindustry labor, occupying many people).

theoretical constructions, which were unlikely would be noticeable in the fragmentary acquaintance with them.

The arguments that have arisen concern a single general scientific topic, which I have been working on for quite some time during my studies at the university, to which my thesis has been devoted, and which now, many years later, was able, apparently, to find a very productive field of applications in the form of neoeconomics, demonstrating a breakthrough character of the research program of Grigoriev's group not only for the field of economic knowledge, but also the fundamental importance of this program for the formation of alternatives still dominant in general scientific discourse paradigms, which, as it turns out, constitute the meta-scientific basis of economic concepts criticized by Grigoriev. And since, neither much nor little, the model of scientific and technical progress itself is the cornerstone of his criticism, the reflection of his own methodological foundations of neoeconomics is an important task within the framework of this research program. Of course, the concept of the model, including practical modeling, is a separate subject in the history of science, and here I will only touch on what, in my opinion, has a direct relationship to neoeconomics.

The theme of my diploma, in which I in 1999, at least tried to connect some vague insights into a single whole, was called "Dialogue model in the methodology of science", and was associated with an attempt to abstract the concept of the model as one of the key concepts of European rationality, concerning potential opportunities and principles of logical modeling of the situation of dialogue. Between this, already far enough, the time when the diploma was written, and the recent acquaintance with neoeconomics, there was one more case when I happened to touch on the topic of dialogue modeling: at the suggestion of a large expert in neuroinformatics, Dr. A.A. Kharlamov, with whom and whose applied solutions were very inspiring, I made a presentation at the youth international conference "Information Systems and Technologies", held on 05-06.09.2012 in the congress center of the Moscow Technical University of Communications and Informatics.

The report was called "Methodological requirements for the development of computer systems working in the logic of dialogue," and was located in the outline of a research project by Kharlamov, related to the development of

algorithms for the spatial orientation of an intelligent robot. In these short theses, a hypothesis is presented about the need for a shift in understanding the structure of the logical model, as it is set today in the classical semantic formalisms of the foundation of mathematics. However, what does the private digging of an undergraduate student in the history of science about the features of the origin of the general scientific idea of the model, and also his assumptions about the possibilities of logical and semantic structuring of dialogue-communication-performatives, have to do with neoconomics? I will try to designate it consistently.

First of all, if O. Grigoriev is an economic cybernetics, leading the conversation about economic and state governance, then the talk about the applicability of logic to neoconomics is not only possible, but, in a sense, necessary. In addition, one of the key moments of neokonomiki is the statement about the crisis of the economic model of scientific and technical progress (NTP), which began to coincide with the opinion of the majority of professional historians, and refers to the "long XVI century" and the New Time. As part of this review of neokonomikoy it recognizes that modern science that gave rise to NTP, there was partly in denial, in part – on the creative development of the tasks prior to her size science – scholastic learning, in most developing metaphysics and necessary for her conceptual apparatus of universals and forged predominantly Aristotle logic as a rigorous general scientific instrument of rational comprehension. On the other hand, neoconomics considers applied mechanics as another factor of scientific and technological progress, initially occupying a "technical position", and subsequently firmly entrenched in both "scientific" and "technical" components. However, in the current discussion on the relationship of neoconomics to the scientific and technological revolution, it will not be considered.

From the "scholastic" aspect of science follows the recognition of the fact that the economy itself, in its original, political-economic version, which began to appear many decades after the "long 16th century" in the person of the physiocrats, and look back at the very management of man, during this period, as a separate subject, invariably, among other sciences and disciplines of the New Time, in the process of its development had to absorb in itself the paradigmatic differences and criteria of scientificity that accompanied this transition from one of The scope of science for the other, many of which survived until the beginning of the XXI

century. One of these differences was the idea of a model, which is rooted in the ideas of Descartes, Vieta and a number of other authors. Summarizing the above, one can see two views of neoconomics on science and science:

1. science as an object of consideration of neoconomics, in the sense of its known economic model of NTP;
2. scientific and methodological foundations of neoconomics, which include, first of all, language, a conceptual apparatus that, in addition to the economic discourse proper, in its turn includes in a certain way both cybernetic, system-theoretic, and logical discourses, and in the framework of the latter, he considers the scientific concept of the model in general.

If the first aspect of the consideration of science by neoconomics, primarily historical, concerns a certain type of scientific thinking, and connects political history, the history of economic doctrines, the history of science and the history of ideas, the second relates to the clarification of ontological and epistemic narratives behind the narratives of economic theories themselves.

I will give an example of the relationship of these narratives to each other. Thus, chaos and order are system factors-antipodes, but in the sense of logic the question is always put on order, whereas the first, conspicuous, logical equivalent of chaos is a contradiction, or absurdity, expressed in classical logic by the formula  $p \ \& \ \neg p$  (another manifestation of chaotic began in logic to me and earlier, and now, some aspects of the logical structure of the question are presented, on which I will not yet dwell). External money in neoconomics (5 lecture) is a factor of chaotization of a closed reproductive circuit, and its closure can also be considered as a system-theoretic concept, whose antipode is the concept of systemic openness; However, judging by what is being said in the basic course of "Shanin" lectures, the concept of the closedness of the reproduction contour corresponds more closely to the bio-cybernetic concept of homeostaticity. Meanwhile, if we use the logical interpretation of neoconomics, then proceeding from the definition of the reproductive circuit given within it, it turns out that external money is randomizing the latter, contributing to the violation of the principle of its completeness, that is creating in its system contradictions by introducing external, foreign, components of another reproductive circuit, with a higher differentiation of labor and a more complex system arrangement, the first

condition of which is the involvement in this, the second Second, the circuit more participants.

In connection with the notion of the NTP model, one should mention the treatise on the sociology of knowledge of Berger and Lukman, "The Social Construction of Reality" (M, 1995) [4], which I was recommended during the preparation of the diploma as one of the first books, that I consider communicative situations in the aspect of the fundamental concept of a logical model. Proceeding from phenomenological roots, they rightly consider institutions, legitimation and symbolic universes as key differences in the definition of social space. At the same time, we immediately need to compare the meta-scientific, "mathematized", the concept of the logical universe, used here, and the idea introduced by these authors about the symbolic universe in the thesis № 156 of the treatise:

*«The fourth level of legitimation consists of symbolic universes. This is a system of theoretical tradition that has absorbed different areas of meaning and includes an institutional order in all its symbolic integrity<sup>69</sup>. The term "symbolic" is used here in the sense referred to above. Let us repeat once again that symbolic processes are processes of signification (notation) that are relevant to realities that are different from the realities of everyday life».*

И, собственно, текст ссылки 69, в которой проводится ассоциация с аналогичными понятиями других авторов:

*«our concept of the "symbolic universe" is very close to the religion of Durkheim. For our argumentation in this section, the analysis of the finite domains of the Schutz value and the Sartrean concept of totalization».*

Of course, the concept of such a universe used by them corresponds to the concept of the model used here, but, rather, in the first meaning in which the concept of the NTP model and its crisis as an object of neoeconomics was mentioned above. Then, indeed, this model may well be (and even should be) interpreted in terms of the symbolic universe of Berger and Lukman – primarily because it is the institutionalized legitimacy of the NTP, which is in the "cosmological and anthropological reference frame" (ibid.) of the new European science is a factor hindering the understanding by many representatives of the academic community of the risks associated with it and the search for alternative models. In this sense, the conceptual differences between Berger and Lukman are essential for clarifying the issues and problems of the modern sociology of

science-in particular, those relating to various frustrations in scientific activity. Also quite rightly, the authors talk about the "organismic" aspects of the dialectics of nature and society, when in footnote 44 they note that

*«the dialectics discussed here between nature and society are in no way equivalent to the dialectics of nature as it was developed by Engels and later Marxism. The first emphasizes the specifically human nature of the relationship of man to his own body. The second, on the contrary, projects specifically human phenomena onto a nonhuman nature, and then seeks to dehumanize a person, looking at it only as an object of natural forces or laws of nature».*

Briefly summarizing the above extensive preamble, it should be said that, upon acquaintance with the full cycle of "Shanin" lectures, it seems that the orthodox or classical view of the economy or economic model criticized by Grigoriev is closely related to the classical notion of a scientific model in general, if not based on it (which is correlated with the second point of the concept of science in the sense of neoconomics, see above). What is meant?

The expression  $M = \langle U, I \rangle$  used in the apparatus of modern symbolic logic means that the structure of the model  $M$  given in the parentheses suggests the existence of only one universe of objects, on which only one function of interpreting these objects is assigned, which puts one of them into correspondence with the others. Operating exclusively on the level of the notion of a model structure, one can assume that in such a classical view of it the concept of a single reproduction circuit can be interpreted very well, and the balance or equilibrium is interpreted in it in the notion of the consistency and completeness of the very logical model of this contour. If we follow this assumption further, we get that the interaction of the two reproductive circuits is the ratio of the models  $M_1 = \langle U_1, I_1 \rangle$  and  $M_2 = \langle U_2, I_2 \rangle$ , and the relations in the set of reproduction loops within one national economy are expressible as relations in the set of models  $\Gamma_m$ . Why all these symbolic exercises?

The fact is that when there is a confusion of contours due to interaction by means of external money, then it becomes unclear about what kind of logical structure should have itself. First, the desire that arises here is to start portraying semantic monsters like this:  $M_{1+2} = \langle U_1, I_1, U_2, I_2 \rangle$ ; this:  $M_{1+2} = \langle U_1, U_2, I_1, I_2 \rangle$ ; this:  $M_{1+2} = \langle U_1, U_2, I_1 \rangle$ ; this:  $M_{1+2} = \langle U_{1+2}, I_1, I_2 \rangle$ ; or this:  $M_{1+2} = \langle U_{1+2}, I_1 \rangle$ . Of course, they can be a visual symbolic record of the states of monetary interaction of reproductive

circuits, and being taken in the presented sequence – perhaps even the process of such interaction. But how to build the model itself with such structures, will it be anything substantial at all? Such monsters came to me in 1999 when I was working on a diploma, when I tried to express the conflict of interpretations and other communicative situations through the structure of a logical model.

Of course, all these delights then caused objections from the representatives of the science of logic, with whom I consulted on this matter. But, anyway, it is necessary to recognize that the same conflict of interpretations can be expressed by the structure  $\langle U, I_1, I_2 \rangle$ , but mixing of reproductive circuits, if the assumption of the possibility of a logical interpretation of a single contour through the classical structure  $(U, I)$  (for which I do not see any obstacles) is true – a record like  $\langle U_1, U_2, I \rangle$  (the brackets " $\langle \rangle$ " themselves can be interpreted as a cortege of the established unified social order in the oecumene, and  $U_1$  и  $U_2$  – as, for example, incompatible subject-technological sets of various contours, calculated on various systems of division of labor). The emergence of semantic monsters was made possible by the basic thesis of my diploma, which was that almost all the tradition of the science of logic that has been going on since Aristotle's time was a tradition of the logic of a monologue, but not a dialogue, almost to the very Austin with his "verbal acts" (a strict and sane calculation of which has not yet been built). And that even the dialogues of Plato represent a very reduced structure of question-answer relations. As part of my clarification, the words of JR Collingwood sounded eloquent, arguing that his contemporary academic logic was the logic of answers, but not the logic of questions, that is, monologue. Of course, in this case, the so-called dialectical logic is not being considered: the historical removal of the contradiction in synthesis is certainly an important system-wide worldview discovery, but there are no clear calculations with this logic, nor its reproduction in machine form for automating dialogue modeling, nor how to use it this logic for the formalization of communicative situations – for example, the same conflicts of interpretations and other communicative failures. The logic that has gone through scholasticism even though it was the logic of Aristotle (more precisely, the name of Aristotle), it was, first of all, the expression and representation of God Logos, which is monotonous and one, correct and correct – always and everywhere.

My second thesis was related to the fact that the logical model in its classical structure  $\langle U, I \rangle$ , which sets the paradigm of the logical (mathematical, then – everywhere in science) semantics, is also a model of "monologic", but not "dialogical ". And that everything, derived from here and accepted in general scientific practice, the traditions of modeling are based on the predominant presumption of isolation of the modeled object. And that this is precisely the fundamental difficulty associated with the methodology of creating models of complex and dynamic objects. But the dialogue itself, as it turned out, deals with interobjectivity and interdisciplinarity, which, as it were, is not peculiar to presetness and spontaneity, and already at the level of trying to construct its logical structure there is something that breaks the very logic. I could not continue to understand this topic: the deadline for passing the diploma was coming to an end, and current concerns did not allow me to seriously pay attention to this topic. After many years, the subject matter of neoeconomics brought it to life again.

It is the monologic and monistic nature of the perception of the economic orthodoxy of the national economy, and the postulation of the universality of the processes of economic development for all countries, irrespective of the conditions for the existence of each of them, as well as the absolutization of certain concepts (exchange, inventions, innovations, etc.) without due clarification. These, carried out like scholastic realists, proclaiming the existence of universals "before things", and are the object of criticism from Grigoriev.

However, the most logical logic is not the monstrous model structures (I did not even try to build them myself), but something else related to more fundamental things in logic – to the concepts of consistency and completeness. Since the time of the scholastics, *reductio ad absurdum* has been used as a method of proof, leading to the boundaries of logic, but these boundaries themselves are not transient, because the space *Infernum* (interesting, rather, to exorcists than logicians themselves) was considered to be behind these boundaries, and so far it was *terra incognita* for the most rational. Nevertheless, neoeconomics, connected with the general idea of systems and the management of them, indicates the existence of completely legitimate processes taking place in this space.

As for logic, the model is considered acceptable if it is proved to be semantic consistency and completeness, which, as suggested above, corresponds to the economic notion of balance, or equilibrium, of reproductive contours that is randomized in their interaction by external money, in a logical interpretation, a violation consistency and completeness. This means that the fundamental question that lies within the framework of the tasks of mutual expression and the mutual loading of logical systems must be changed: it should not be how the expression of one logical system in another should be ensured by consistency and completeness, but how to take into account the factor of contradiction (absurdity, chaos) as an integral and regular factor in the interaction of systems. For the economy as a whole, the issue of social contradictions in the course of economic interaction is not something new (especially for the Marxian, in many respects due to Hegelian dialectics), but for a mass of logicians it will for sure sound like an oxymoron, because logic considers absurdity and incompleteness as system-destructive (for all potential destroys informativeness), but not system-creating factors. However, for the logical interpretation of neoeconomics, the latter may prove to be correct. And this interpretation is nothing more than an attempt in the scientific tradition to build neoeconomics, like any other economy, as a rigorous science, strictly defining its language and basic concepts. This adherence to the tradition of logicity is typical of economics, but we must recognize the fact that the intrinsic, substantive content of the logic of the constructions in it, having, moreover, a number of empirical evidence and working from a position of positive heuristics in the sense of sophisticated falsificationism, requires, besides, the program of revision of 300-year-old economic knowledge) simultaneously and revision of meta-scientific logic bases on which not only the science of economy was built, but all scientific rationality of the New of Europe the same period. All this means demanding a radical change in the general principles of scientific speaking and interdisciplinary interaction.

Known whether somehow and somewhere an example of language and cognitive systems, however some close suitable for addressing systemic situations, in addition to the exotic, but quite firmly holds its place in the science field *vzaimopogruzhaemosti* logical systems (modeled in the classical structure  $\langle U, I \rangle$  and able to formalize some set of reproductive contours)? I would venture to suggest that the language offers synergetics of R.B.Fuller behind it detects my

study of this issue, based on a number of key ideas, not only of cybernetics, with 2H XX century preoccupied with economic issues, but also issues of applied mechanics, serving for neokonomiki as noted above, one of the sources of the economic model of technological progress (in addition to the scholastic learning), but is not considered until the due principal singularity of this theme. Another moment is a creative action, based on elementary life observations, on the contradictions of human nature. These and some other things I have presented in other sections of this book.

### **On the question of the semiotic nature of money**

In Runet, there are several references to the semiotics of money, but all of them seem to be not on the merits. I take directly the semiotic interpretation of the phenomenon of money as an essential, considering it regarding the interpretation of the nature of money and the financial world from the position of neoconomics in O. Grigoriev's presentation, as the position of the only theory in modern economic science with prognostic value at the beginning of the 21st century.

In his fifth lecture on economics, O.V. Grigoriev considers two views on the nature of money, the first of which concerns the understanding of these as applied to a single reproduction contour (a concept corresponding in its terminology to a complex of productive forces and production relations ensuring sustainable maintenance of the life of the economic community in oikumene at a certain level of consumption) and circulating within it, whereas the second – the relationship between reproductive circuits, assuming a difference in the level s division of labor in each of them and the emergence of market mechanisms. The first view presupposes the basis of the monetary system to be tied to a rare resource – gold, oil, electricity, seashells, etc., the second – the nature of money as the emitted means of exchange, in which the initial prices between reproduction loops are set arbitrarily and then specified (for what John Lowe's experiment of Peter the Great's epoch with the issue of notes and the intensification of economic processes is resulted). Grigoriev emphasizes the importance of such a difference in understanding the nature of money and the inadmissibility of mixing them in interpreting financial processes.

Meanwhile, he does not say anywhere about the sign nature of money anywhere. I also did not hear a detailed discussion on this topic and with other authors.

Perhaps I just did not read it from the economy guru somewhere, or it is supposed to be a self-evident common place, and therefore not considered, but it's strange. And if this is so, then it will turn out to be no less strange than the fact that the economy has discovered that the connection between the finiteness of the markets and the deepening of the division of labor has not been noticed by the economy.

The notion of money signs is well known, but what is money in general as a sign system, and what is the specificity of the process of their semiosis? It seems that such a question in the economy did not arise at all<sup>7</sup>. And although for sure more careful research will show that I am wrong, I will raise it myself, if it is so little discussed, whereas about the exponentially growing common role of the symbolic and symbolic world in the economic processes of the latter is not even centuries old and it's somehow disgraceful, not afraid to be banal.

The appeal to this topic reveals even more strangeness: the point is that there is no need to prove the character nature of money – it is self-evident given for anyone who is slightly familiar with the notion of what signs and sign systems are. But two fundamental questions follow from this: the first is why the semiotic representation is not the basis of the scientific concept of money, and the second is what follows from such a representation. That is, it is obvious that money in general is nothing more than a kind of sign system, a specific language, and there is no money that would not be signs. What is this system?

I'll start with the second question. First of all, it follows that money, other than money, should have monetary value and monetary meaning. In this respect, the interpretation of money for one circuit is, apparently, an interpretation in the aspect of monetary value, whereas the interpretation for several contours is in the aspect of the actual bank notes. But this is only at first glance. A three-dimensional view shows that the understanding of money for one reproductive circuit is unambiguous, that is, interpretation as a sign with one meaning – "a single measure of value," whereas their understanding as a means of exchange between reproductive contours is polysemantic, that is, interpretation as a sign with a set of values. In addition, in the second case there is a conflict of financial interpretations, and with the initial establishment of prices – the situation of

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<sup>7</sup> A.Orlean and M. Aglietta do not count: they are talking at the junction of cultural studies and financial science, but the question of the semiosis of money is not generalized directly and positively.

communicative failure as a fairly typical initial state of interaction of sign systems. A three-dimensional view shows that the understanding of money for one reproductive circuit is unambiguous, that is, interpretation as a sign with one meaning – "a single measure of value," whereas their understanding as a means of exchange between reproductive contours is polysemantic, that is, interpretation as a sign with a set of values. In addition, in the second case there is a conflict of financial interpretations, and with the initial establishment of prices – the situation of communicative failure as a fairly typical initial state of interaction of sign systems.

The money meanings, which are the subject of financial pragmatics, lie in the field of demand, and are connected, like all senses, with the adverb "why". Deleuze's "desire machines that work and break down" are located right here and are certainly connected with those components of the monetary value production systems that are engaged in monetary or financial sense-first of all these are the three pillars of the consumption society most clearly crystallized in the XX century: advertising, loans (in the limit of its massivization – cheap refinancing loans) and the producer-driven urgency of goods. This is written enough and well known, one can only add casually the fourth pillar that appears at the beginning of the 21st century – the intervention of total control means in complex durable goods, connected by one general trend in the development of means of manipulating the consciousness and sense of the person, in particular, the formation of desires and the replacement of the world things the world of realistic illusions. However, you need to be careful not to get lost in the wilds of postmodernism. The financial vanguard is implemented in electronic format, it is inseparable from electronic marketing, all stimulation and provocation of turnover and launch of multipliers. The problem of the global crisis of the turn of the 20th and 21st centuries, in the opinion of the neoeconomists, is a problem of demand, in the opinion of the humanists, the senselessness of acquiring, in the opinion of the world systemists, the exhaustion of growth opportunities. The field of monetary meanings is always a field of closedness, non-disclosure, undisclosed, incorrect or quasi-correct closure of need lacunas, whether it is the need for things, energy, information or human communication, taken within the framework of market exchange relations, in which non-market relations are also involved.

In the field of monetary syntax, there are relations between the money signs themselves, as well as between all those things that relate at first to the double bookkeeping, subsequently to derivatives and securities, most fully and vividly expressed since the Reaganomics era, and so disliked by some neoeconomists. The development of purely monetary syntax generates the economy of paper and financial schemes and, accordingly, due to the specificity of its language – a separate cast of "white-collar workers", versed in the secrets of financial algebra and capable of using it for accumulation (at the turn of the 20th and 21st centuries – globally); and since the production of such savings (in particular – increasing capitalization) is a matter of management, and is not always accessible to control by the owners, there is a flow of property from its owners to managers and the curtailment of capitalist relations. This process began in the late 1960s and was closely related to the history of the development of cybernetics and situational management systems, which is partly the case in the case studies. In other words, the development of the financial syntax (financial algebra) practice associated with the model of the economy based on middle class lending generated a specific, non-state, financial bureaucracy, radically complicated and provided with developed infrastructure technologies – bureaucracy in the classical definition – as a separate class of managers, but connected not with the state, but with what some economists call the "global management class", because, indeed, the expansion of markets and mutual relations the action of reproductive circuits on a global scale required the formation of a control system (the human-machine system, with the machine components included both administrative and information technology components) with a higher diversity than the object of control (according to Ashby's principle). However, when the financial management approached 80% of the economy in other countries and redistributed global reproduction to the managerial and production zones at the international level, the Gödel law began to work, and in the global financial system, transformations that could lead to the regionalization of currencies and transformations (in any case, expected) financial universe in the financial polyversum.

Together with all the cursory interpretations of money about the semiotic triad, which so far looks nothing more than a beautiful hypothesis, the language of money from its specificity adds to it a very important dimension – emission, or

replication. In pure semiotics, the replication of signs is not something significant, what attention is usually drawn to – it is hardly its original subject at all – but it is connected with the meaning, or "why" the use of signs and language constructs.

Thus, there is a feature of money associated with the limit on the issuance of banknotes and protection from proral issuance – forgery. In other words, the nature of these signs is specific in connection with the limitation of the number of sources of their production, in the first place – legal and financial-technological. Usually in graphic and phonetic natural language speech, the production of signs is limited only to a communicative goal. In the case of money, the very goal of a public financial game is to find the maximum available in circulation money symbols or their quantitative representations with the maximum purchasing power. Such an emission limit, together with the right to use and receive, certainly belongs to the domain of the sign pragmatics of money. And from the point of view of the order of investment, the way of using money precedes both their receipt, and emissions, and launch into circulation, and is related both to their return and profit from the circulating mass (dominant and circulating in one reproduction loop of any level), so and with ways of incrementing the sign value without regard to what is presented in specific forms of limiting the nominal volume – for example, the amount of paper money.

Another question is: what is in this game all the participants who are obviously in unequal investment conditions are oriented: to a market return by means of the invested shares of the maximum part of the money supply available in circulation (so to say, "financial catching for livestock"); or, on the other hand, the acquisition of exactly those incomes (with or without profit) that will ensure the possibility of further targeted investments, allowing to create or recreate some reproductive circuit or part of it. It seems that this is a question of the value basis.

Most investors (inside the contour) do not have access to either real or virtual forms of emission, and therefore only have the funds of exchange games that are in circulation in electronic, paper or other forms. At some point, the intensity of economic communications rests on the issue of purchasing power, the availability of these funds, financial bubbles and other things related to monetary semantics. Meanwhile, the obvious meaning of the issue itself lies in the assumption that the intensification of economic processes will generate a set of new goods and values

that can become monetary values. In other words, if we do not consider the class factor of fraudulent expropriation, it is aimed at enhancing economic cooperation in society.

Another question is whether the money system is an artificial or natural language environment.

Finally, in order to understand the symbolic nature of money, it will be important to ask what type of banknote classification among the known classifications of signs, and whether it is not necessary to build a separate typology here.

### **Semantics of money in terms of the concept of model**

Is it true that all social technologies are semantic? Of course, this primarily applies to money technology. If this thesis is proved, then a very important social law will take place. These technologies should be implemented at the level of signifiers and their transubstrate equivalents. But if so, then the law should be considered as a semantic technology, because law is an instrument for regulating society, alternative to money. In this sense, it is much easier to deal with legal semantics than with monetary semantics, since legal signs and texts created from them are specialized subsets of natural language. It is in contrast to this system that it is possible to consider the semiotics of money. This is semiotics of the same sign, which has a primary semantic binding only to the certainty of the territory under its control and its resources, and therefore its signifier is any resource or means capable of acting as a commodity or service, which is always stand (and is worth) human labor, and hence – time spent for the extraction or production of resources or means, and hence – the system of rhythms of human life, for the implementation of which there is a certain reserve of energy resources of the body, and also accessible and suitable to the use of the energy resources of the environment. Another level of this semiotics are inter-exchange relations, but here there is a semiotics of the same sign, and the question of such relations is the issue of the price of working time in different territories. Since the sign is one, all the qualities of all resources and actions measurable by it are equaled to it, reduced to quantitative expressions. Then the conversation in a language in which a single sign for one monetary ecumenium is the means of communication is communication in the language of comparison of different quantities, or in the language of mathematical equations-algebraic essences abstractly expressing the

difference of resource qualities and the associated characteristics (the demand for them, labor, prices, etc.). And this is one of the main roots of the mathematical standard of the scientific nature of the NTP era, because it is precisely in this era that the "real science" known to us is most dependent on economic, or monetary, profit-making games. Money is a symbolic system that translates the real world, described by natural language, into a world of formalized and model descriptions of mathematics; they are a one-element language gatekeeper of the language of mathematics, which legitimizes the description of the world in the categories of numerical algebra as the highest form of its comprehension, but already in the multi-element language of isolated models. And since natural language is also multi-elemental, many people who are superficially judging about science or wishing to find justification for their epistemological choice, have the illusion of the possibility for a mathematical language to be natural, but better than natural, due to its accuracy and rigor, and also the ideality of models, although it is overlooked that such a description of the world is purely instrumental, since the models are universal (that is, they are built on universal model structures), are algebraic (that is, they relate the world to abstract symbols and, but not with the shape corresponding to that of the world), and scattered (that is, not mutualdipping: mutualdipping of logical systems – a rare practice for modern science in general, not to mention the mathematical representation of the method of dives economic and social realities). The attempt to give such a language for the natural will not lead to anything, except to the schizophrenic view of the surrounding reality, about which Deleuze and Guattari have gone about in their own very thorough way.

Here it is worth remembering the definition of MIT mathematics as a science of models and structures. Actually, model thinking also arose with the emergence of capitalism and the science of the NTP era (the possibility of transition from models to recursions will be discussed in the following material, and model thinking itself is already indicated above.) The monetary system arose long before, but where money was, there has always been a demand for arithmetic-algebraic mathematics, money is the social connector of such mathematical thinking to reality, as well as a managerial incentive for the development of such thinking. to return to the question of the model and model structure.

In the previous subsection, the model structure of classical logic was revised for the case of neoeconomics in relation to the tasks of clarifying the interaction between developed and developing countries: instead of  $M=\langle U,I\rangle$  it was suggested that the attitude of the  $M_1=\langle U_1,I_1\rangle$  and  $M_2=\langle U_2,I_2\rangle$  and, further, the structures that I called "semantic monsters" of the form  $M_{1+2}=\langle U_1,U_2,I_1,I_2\rangle$  or  $M_{1+2}=\langle U_1,U_2,I_1\rangle$ , in the general case, they can be expressed as  $\langle \Gamma_i U, \Gamma_j I \rangle$ , where  $\Gamma \neq \emptyset$  &  $\Gamma \geq 1$ . That is, the classical model structure can be included in one that can be called polyversal, or interactive. The basis for a meaningful interpretation of the  $\Gamma U$  was taken many economic systems (reproductive circuits, closed markets, division of labor systems), while the  $\Gamma I$  record was interpreted as an abstract assumption that when recruiting interacting economies, different interpretations of the nature of this interaction are possible within the framework of this interaction players. However, such an interpretation does not disclose the economic content of the  $\Gamma I$ , and therefore the actual question is: what is the function of interpreting economic universes for actors of action in them in the sense of neoeconomics? Is there  $\Gamma I$  more than just a mathematical abstraction?

If we talk about the applicability of all that has been said above about the dialogue model to the solution of the methodological problems of the economic subject, so far there is not. In this sense, if we proceed from the recognition nekonomikoy that any economic system is the system of division of labor (SRT), whose price is the monetary value of the costs of activity per unit of time and money is a means of correlating the goods and services on the basis of expression in their work and the main a tool of the financial sector that relates the prices of goods and services as labor prices, then the trade-financial function that runs through the objects of the set of economic universes will be the content of the  $\Gamma I$ -the function of money circulation.

We also need to find out how the notion of a model whose main performance criteria are the principles of consistency and completeness is consistent with the principle of the dialectical method laid by Grigoriev as the basis of neoeconomics, proceeding from the recognition of contradiction as the key condition for the movement of the studied processes that are considered in dynamics<sup>8</sup>. First of all, we must proceed from the fact that the recognition of contradiction as an initial condition of the systemic process does not mean either the requirement of

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<sup>8</sup> Although, with some reservations about the fact that Grigoriev recognizes the very dialectical methodology in a sense, it is not indisputable.

contradiction in reasoning or the recognition of the operability of a contradictory model. That is, the logical representation of the research program of neoeconomics from the point of view of the model does not contradict the dialectical method accepted by Grigoriev as the basis for the consideration [5]. Moreover, it corresponds to it, since it allows to consider a set of combinations  $\{\Gamma_i=n, \Gamma_j=m\}$  as a set of phases of economic interaction, and the general case  $\langle \Gamma_i U, \Gamma_j I \rangle$  – as a sequence of such phases. In addition, the dialectical method proper refers to logical methodology as a branch of the science of logic, whereas models and model structures belong to the field of logical semiotics.

Specifying, we can assume that the expression  $\langle \Gamma_i U, \Gamma_j I \rangle$  under the  $\Gamma_i \geq 2$  and  $\Gamma_j \geq 2$  will mean a set of currencies operating in a given set of systems of the division of labor; for  $\Gamma_i=2$  and  $\Gamma_j=1$  it will, for example, mean the interaction of two economies, one of which is a set of interacting SRTs that have a formed monetary system, while the other is a reproduction loop or a closed market that exists within one country; for  $\Gamma_i=2$  and  $\Gamma_j=2$  it will, for example, mean the situation of interaction between one rich country and one poor man-hour with different prices in each of them; situations  $\{\Gamma_i=2, \Gamma_j=3\}$  or  $\{\Gamma_i=2, \Gamma_j=4\}$  can mean the interaction of two SRTs with one or two currencies (one of which may be a reserve one), whose issuer SRT does not participate in the interaction under consideration, although the currencies themselves are in circulation. Situation  $\{\Gamma_i=1, \Gamma_j=1\}$ , in turn, will mean just the distribution concept of money, adopted basic in neoeconomics – the initial phase of managing the economic process in oecumene, where the state employees hire goods (and, possibly, services) in the warehouse. For economic orthodoxy, as it was said in another document, such a structure would represent a universal national economy with a single monetary system; the initial problematic cases for neoeconomics are the marked  $\{\Gamma_i=2, \Gamma_j=1\}$  и  $\{\Gamma_i=2, \Gamma_j=2\}$ . In general, such situations make it possible to formulate more clearly the diverse cases of economic interaction, meaningfully restricting the applicability of combinations  $\langle \Gamma_i U, \Gamma_j I \rangle$  and thereby making a multiversal, or interactive, model structure informative.

So, if the function of monetary interpretation of SRT in the neoconscious sense is trading, or financial, then the hermetic role of trade can be determined (it is no accident that Hermes is simultaneously a god of trade and understanding). The financial interpretation of values, labor and its products is not, according to

neoeconomics, a condition of economic balance; in addition, the interpretation itself introduces an imbalance (and contradictions), acting as a factor of economic development.

Trade is the interpretation of the price of labor in a particular currency, which means that it is its interpretation in different forms relative to each other and in different values of the costs of action-in-time. Actually, the importance of targeted labor for organizing the division of labor in the oecumene is nothing but demand.

Further – the question of clarifying the model structure of neo-economy, which always inevitably is the question of the substantive logic of the subject. If U is interpreted as SRT, contour or market, as a national economy or as an economic oecumene in general, I – as a function of the monetary-price interpretation (evaluation) of goods, resources, goods and services present in a given oecumene or oecumene set expressed in a particular currency, acting on some subset of them and tied to some one oecumene-emitter, then this attachment should also be expressed in the model structure. In addition, this function, of course, still needs to be clarified in terms of non-economic differences in monetary circulation in the consumer and financial sectors.

As for the latter, the difference does not directly relate to what is at issue here: the difference concerns the ways of using money, investing it and giving it back, according to their understanding by the representatives of the financial and real sectors, but not the actual ability of money as the manager component of a certain system of the division of labor, express an evaluation of the goods produced on the basis of the labor-specific device of this system of labor price: both the financial and the real sectors, being in the same environment of circulation one currency, deal with the same price system, although the financial sector, unlike the real one, is able to multiply the money. The difference in monetary circulation in the financial and real sectors is rather related to the set of conditions of interpretation that make up the model itself, within which the mutual consistency of these conditions is determined, rather than to its structure, that is, the function of monetary circulation depends on the specific conditions of restriction and the assumption of its feasibility.

But as for the first, or the structure of the model, the very fact of the existence of a monetary system that fulfills the economic function among the functions of other types of activity, as well as the binding of currencies to issuers, that is, the membership of a multitude of currencies as money circulation operators, oikumene, in which SRT operates in some territories. At the same time, the structural essence of both SRT and trade and financial functions is that they are constituted by a non-economic act of management: the division of activities – on the one hand, and the creation of a monetary system – on the other; while the financial and real sectors of the economy are already economic categories.

To express in the model structure the pegging of the currency to the ecumene, and also taking into account the noted possibility of the presence in this structure of currencies of the issuers not represented in it, the task arises to consider in some way the oikumene and the SRT operating in its framework in the aspect of relativity of the scale of its territory.

### **Model vs recursion: the question of the scientific method**

This material is a small methodological bridge to the cybernetics of viable systems and deals with the question of whether it is possible to create in the limited territory (country) an economic system of a larger (global) division of labor? This is specifically the issue of governance: to replace the obsolete Soviet Gosplan, which worked on the concept of interbranch balances, but could not cope with in-country economic sets of greater capacity than it could recycle, something more adequate to these sets that went beyond state borders and already fairly eroded in the global economic system. For the beginning of the 21st century nothing sensible, in the sense of control systems of the post-Soviet realities of Russia, after the State Planning Commission was invented.

Comparison of the country and the world is the operation of categories of a larger and smaller scale, therefore, we are talking about the scalability of complexity management systems of arbitrary degrees. In this sense, following the thought experiments of some representatives of American analytical philosophy (I mean Hilary Putnam), as a hypothetical example here we can consider the assumption of the Earth, to which some reasonable inhabitants of an inhabited super planet, similar to the Earth, but surpassing its size in (if not in order), have brought a life in order to check whether it is possible for a smaller area with less resources the

emergence of life and a degree of its social organization that is capable, overcoming the problem of the limit growth, to reach the level of the division of labor and technology, providing a breakthrough into the outer space, as it became possible due to the territorial, source, logistical and human resources of the superplanet – if, of course, it is assumed that it is human, and not some another, a form of intelligent life (and here there is the pathos of yet another American philosophy – but not analytical, but fullerian). By the way, I do not rule out that it was or so it was. But we are not talking about the signs of confirmation of this hypothesis on Earth or in the space nearest to it, it is about management. Actually, the scale/complexity ratio is what Stafford Beer spoke about recursion. You can, of course, be surprised at this "something" and without a name, navezho, and discover in it a new one; but, fortunately, the name already exists, and the problem is clear: the corresponding concept needs to be correlated with the concept of the model.

Immediately it is worth mentioning that here it is necessary to depart from the abstract-logical concept of the model as a "model of the reasoning system" towards a more concrete concept of the "object model", although the essence remains the same.

It would seem that the construction of something recursive is a matter of modeling: usually when we talk about it, we mean the translation of the complexity of a larger scale into a smaller, as in the modeling of buildings, ships and industrial machines. Somewhat less often under simulations is meant the reverse process, similar to it, but there seems to be nothing especially, like, for example, the creation of a macro model of a microorganism. In any case, modeling is the creation of an object in its main or significant features on a human scale scale.

It is a different matter when there is a translation of a certain complexity of a larger scale into a smaller one (and also back), but with the preservation of the degree of complexity. This is not a simulation, but a decreasing or increasing recursion. Moreover, unlike modeling, recursion (in any case, in the sense of Beer) has the property of systemic connectivity of identical complexities of a larger and smaller scale, that is, the ratio of the inter-scale interaction of control signals is actual in it. While the model is a pattern or structural pattern, the

activity navigation tool is like a map that orientates in creating a real object on the model, but with the object itself not directly related and not part of it-as a measuring tool and a workpiece to which it is applied.

Today, for me, the essential problem of the scientific method of the boundaries of the 20th and 21st centuries is obvious, that objects, including social processes, are thought primarily model, whereas in a number of cases they should be thought of, most likely, recursively (this, in particular, interaction in the macroscale and a clearer clarification of the degree of anthropogenic pressure on the planet's ecoclimatic systems in order to avoid the numerous opportunistic speculations currently available on this account). It is here that the question arises again of the visibility of the consequences of a proportional reduction of everything and everything that rose in the Leibniz era, and here – the question of ephemerization – the concept introduced by Fuller, but never clarified to the end by those who like to talk about "the replacement of mechanical and material informational". Concerning these very ideas of the Leibniz era, it will be appropriate to recall the anthropic principle according to which the universe is given in its givenness insofar as it was possible for the observer-man arising at such and such world constants: the speed of light, Planck's constant, gravitational constant and masses and charges of elementary particles (without clarifying the parties to the dispute over the "particle"). The present formulations of this principle do not say, however, about the fact that a person for some reason is inscribed on this scale – so to speak, the system of spatial proportionality of things, and not in some other, but quite on these, constant, grounds, the positive answer to the question of the seventeenth century is based on the fact that, if there had been a reduction in everything and all several times overnight (including ourselves), we would have noticed this in the morning or not. In our system of cognitive coordinates, the empirical category of scale turns out to be subordinate to the deducible categories of world constants that substantiate its predetermined nature, but there are no "as it were" in the formulations of the anthropic principle of scale (although it is contained in the "removed form"). It arises again when it comes to self-similarity, a trans-scale reproduction of structures that depend more on some universal principles of structuring the universe than on limiting the magnitude of some of its aspects; it is not ruled out that science will still be suitable for the question of the redefinition of the concept

of world constants. If you pay attention to the way you talk about the scale, you can see that it is not one thing, but always the correlation of what is called scale levels: in their likeness and, more importantly, originality.

At the level of control systems, preserving the degree of complexity (or increasing the precision) of systems of a smaller scale should look like something like a mystery action that loses the cosmic process, corrected by the fact that such mysteries science of the NTP epoch thinks modelically. But if the model is viewed as a kind of reduced recursion, and such an opportunity logically follows from everything noted above, how can one recursively discuss society and manage it? (After all, there is also a concrete historical moment: Beer tried to introduce recursion, who was building a system of governing the Chilean society, cybernetics, but eventually managed to become "Chicago boys" who worked within a very specific model.) If we recognize the obvious – that is, the society are a colloidal system (Zinoviev's "humanoid", like an anthill or a beehive), then the whole of mankind is a polysystemic, or cluster, colloid. And the question of governance here is the question of how the ratio of the signals of one cluster is translated into the relations of the signals of the other, but less in one way or another. If the control relationships of signals of a larger territorial scale operate at the level of vertices of limited hierarchies, then there are no problems: they are descended to smaller territorial scales operating at the level of algorithms or routines. If they work with population powers commensurate with smaller-scale facilities, then even better: the best effect is achieved through concentration in the territory. Meanwhile, the recursion principle just makes the hierarchy not mandatory, demonstrates its particularity, and not universal principledness: a routine process launched on one scale will remain so on a different scale.

The mixture of the natural and artificial in the ideas of the science of the 17th century, as described by P.P. Gaidenko ("Christianity and the Genesis of New European Natural Science" in the collection "Philosophical and Religious Origins of Science"), when the study of the causes of nature was replaced by a principled assimilation to it by an artificial mechanism working comparatively with nature, just became a condition for the emergence of model thinking. And also why they stopped paying attention to the form (and why the lone call of one strange Austrian to turn from the science of form to the science of formulas, which was muffled by the crash of the Second World War sounded in the first half of the

20th century, for many still sounds wildly). Scientific thinking "by likening the principle" to the created person, and the Kantian "cognition only of the created", exclude the ancient principle of cognition through the correlation of macro- and microcosms, although it seems to follow it. This principle is the principle of recursion, an alternative to the model one. But about the connection of the so-understood recursion with the "Cosmos", I did not find references to S. Beer (although I do not exclude that somehow this is somehow implied to them in a natural way).

It should also be taken into account that the paradigmatic mixture of natural and artificial occurred during the period of great geographical discoveries, when Europe, which had been relatively sedentary until then, came into the global movement – marine primarily. Taking into account the consequences I noted from the constructions of the historian S.Nefedov, according to which it turns out that the nomadic tribes and peoples are more inclined to technological innovations, while the settled ones – to the cultivation of the observed natural environment (see further in the material "Some speculations about the possibility of transhistorical continuity ... "), it can be assumed that the new task of science was just to ensure the emerging nomadic needs of a European person (it is enough to recall that the Cartesian coordinates arose as a means solving the problems of navigational navigation), and the principle of assimilating natural technology became the principle of demystification and desacradization of the probes, but not the clarification of its processes.

It is in this sense that the world of universal forms, or primordial forms, is not a world of model constructions: it is not an assimilation or even a reduction, but a generalization of observations with the question of cause, for in models and constructive assimilation, formal and objective causality is not taken into account, whereas in relations forms (for example, platonic solids) already have a mutual implication, which implies the opening of a potential in a specific form (for example, the octahedron potency embedded in a simpler tetrahedron).

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Recursion is not necessarily a hierarchy, that is, a variety does not necessarily specify a hierarchy. It is possible that the hierarchy is the reduction of the idea of scale, the model of inter-scale relations that is given out for the structure of the

real world—for example, in social hierarchies a system of status positions occupied by individuals is established, but this does not mean that the status corresponds to what is meant by the "scale of personality" – both by action and by aspirations. Equipped with the logical principles of classification as a kind of intellectual operation and its own methodological basis, a hierarchical world view arose long before the "thinking by models" emerged in the Classical Age, but it was fully integrated with it.

So, by recursion, in connection with neoeconomics, we have, on the one hand, a polyver- sal multiplicity structure of the form  $\langle \Gamma_i U, \Gamma_j I \rangle$  for cases of formalization of logical-dialogue, communicative, relations and performative speech acts; on the other hand, the awareness of the model itself, and hence of its structure, with respect to the concept of recursion, as comparable to the model category by empirical basis. How, in this sense, should we talk about socio-economic modeling, based on the presumption of descriptive suitability  $\langle \Gamma_i U, \Gamma_j I \rangle$  for the interpretation of neoeconomic theory? That is, what should work with recursion, similar to modeling, for neoeconomics? What does it mean to "model something" in a recursive sense, according to the above difference between recursion and the model? This means creating in a smaller (in this case in larger, in other cases – in a smaller, see above) spatial volume and on a given economic objectivity a certain workable system (or a certain cluster or content pattern) that has a finite, and fuzzy in the set-theoretic sense) structure (I will not say yet "viable" in the sense of S. Beer, so as not to strongly attach to it), connected with the management of systems of the same complexity of other (primarily large) scales, then reproducing them or being in barrier-free conditions of reproduction in their resource environment, for the purpose of further multiplying and influencing other scale levels.

This also requires an explanation in terms of the concept of integrated design. The already established recursive system can be given topical, and be naturally or spontaneously arisen – for example, this can be a bureaucratic hierarchy, reproduced at different, interrelated, levels of government. It is a different matter when such a system is the subject of planning or designing.

The trans-scale reproduction of interstate-linked structural levels, each of which is a full-fledged (non-model) functional, or even the launch of the process of such

reproduction, is the content of consistent, focused and conscious activity, the key problematic issue of which is obviously control over its results and consequences at each stage.

The first thing that comes to mind is that the target inter-scale is achieved by the interaction of the initial, initiating recursion, a system with other systems of its own scale for restructuring their functionalities to ensure the existence of a system of a different (larger) scale. The source system is the source of the sense-purpose.

So, the first thing that can begin work on the creation of recursion – with the definition of the minimum "staple space" on which the system is created. Here it is important to take into account that it is the insignificance, finiteness and, so to speak, speculative coverage of the space of cybernetic experiments that is the key to their success; the brightest historical examples here give the middle of XX century. So, about 300 square meters. meters of the basement of the Krasnoyarsk Institute of Biophysics for decades, won an experiment to manage the reproduction of biota in the 1970s against the hectares of an expensive private American project "Biosphere-2"; on the other hand, the cybernetic experiment of automated economic management in Chile's relatively small, climatically diverse and geometrically linear country, based on the correct ("biotopic", by the way) theory, gave far more encouraging results to the comparatively stillborn concept of the Soviet OGAS system, uneven expanses of 1/6 of terrestrial land, a losing Kosygin system of "management instructions" and sunk into oblivion. In view of what has been said, these examples are clear evidence of model thinking, acting in abstraction from the category of applicability of the model.

On the other hand, the interaction of the large-scale commensurate oecumene is quite compatible with the concept of a system of "small groups", built according to a non-hierarchical principle, as discussed in my very first report to the Center "Neoeconomica" dedicated to local telecom networks. In a certain sense, this concept can be considered as an "instrumentally secured" version of the "Swiss model", and a clear representation of the large-scale interaction in the sense of its "complementarity" – Aescher carpets or the same Voronoi diagrams.

The important news here is the hypothesis that the metastructure  $\langle \Gamma_i U, \Gamma_j I \rangle$  can be a means of describing not only communicative situations, but also recursion,

considered, in this case, as the communication of co-scale and inter-scale systems (or subsystems).

Another important news is that it is the activity to create recursions that proves to be a meaningful definition of project activity, both in Grigoriev's and in Koestler's sense of creativity. The model is a semantic and structural outline on the world, each time acting as a reduction of this world, suggesting the alignment of the world with respect to itself, which ultimately leads to the pandemonium and war of such reductions, and to the constant escaping of the world from them. In fact, the expert models of the world of greater or lesser complexity in the non-economic sense are the "AOD matrix", as formed in the experience of the individuals carrying their stories (narratives), and therefore also checked for complementary compatibility and feasibility in new situations during various meetings. Recursion, which includes semantics and structure, is, moreover, the creation of a "small world" that is knowingly calculated for interaction with other "small worlds" and inscribing it into the "big world"; creating a "routine" is the creation of the regularity of such interaction, which is why it has the right to be called a truly project activity. In the same sense, a meaningful condition can also be clarified for the "point Y" – the moment of the "project transition" from the state of the AOD to the routine in the organization's activities, not yet clarified by neo-economics: within the framework of the logic under consideration, it arises at the moment when sufficient preliminary the experience of one's own activity (the natural division of labor) with respect to stable, co-scale and interscale agents – the branch potential of the division of labor (competitors or partners), consumers, subcontractors and regulators; regarding the completeness of such information by the project manager, and a decision is taken on the "point Y" and the beginning of the project transition to the technological division of labor and the prescription of routine procedures.

That is, there arises a fairly clear criterion for this "anti-bifurcation" moment of the transition of an organization: when the mutually agreed managerial experience is consistent with sufficient awareness of the external conditions for ensuring demand as an organization's goal (whose "bottlenecks" in the sense of Goldrath can be interpreted as attenuators in the sense of Beer according to the principle necessary variety of Ashby and theorems on the boundedness of formalisms). It is the sufficiency of information on the difference between the internal and external is the basic condition for the beginning of their creative

problem in the Koestlerian sense. In Grigoriev, the idea of social recursiveness manifests itself, in particular, in his adherence to the idea of a global scale of consciousness of the individual.

At the same time, as another criterial moment of the transition to the "point Y", it is also necessary to denote the restriction of recursive reproducibility, which requires a separate consideration.

### **A.V.Buzgalin & A.I.Kolganov vs O.V.Grigoriev: who is whom?**

Following the presentation in the Biblio Globe on January 13, 2014 of a collection of lectures by Grigoriev on neoeconomics "The Age of Growth" [6], on February 11 of the same year a presentation of two volumes of two Marxist co-authors with the economics faculty of the Moscow State University took place, occupying the same position as Grigoryev critics of neoclassicism. A two-volume book is called Global Capital [7]. As well as Grigoriev, the authors accentuate the dialectical method and try to typologize economic systems from the position of the metasystem. Judging by their answers to the questions asked during the presentation, personally to me, my answer to the question put in the headline is evident to me today. I just scrolled through the book, and so my judgment builds on the ideas and answers of the authors to the questions voiced during its presentation. So I present a brief summary of what I saw and heard with my own comments.

As it is said in the annotation to the book of Buzgalin and Kolganov "Global capital", *«the two-volume monograph sums up hundreds of publications by well-known authors, professors of Moscow State University, whose works have been translated into many languages of the world. She critically inherits the theory and method of "Capital" by Karl Marx and reveals the anatomy of the modern global capitalist economy»*. Let's hear from the authors what this is about.

Presentation began Kolganov, Buzgalin came later. According to the report, the publication of the book is motivated by the emergence of various "mosaic" processes in a society that had not previously been the object of close attention; as he put it, these processes are characterized by the fact that *«the world economic system has entered a period of nonlinear transformation, and there is an accumulation of prerequisites for the transition from the realm of necessity to the realm of freedom»*.

On the slide of the presentation "New Developments in the Field of the Methodology of Political Economy" the following is written: *«the universal model of structurization and typologization of socio-economic systems, tested in the process of research of various objects»; "The causes and negative consequences of the" market-centric "of the current orthodox economic theory»*. In words it was said that such a "market-centric" view of the economy is outdated and has no explanatory value. (I remind you that Grigoryev's ideas about money, which stimulate the deepening of the division of labor in the system of interaction between reproduction contours and markets, and the role of the trade and financial sector in this process, is one of the foundations of the concept of the economic process proper.)

It was further noted that in the second volume of the monograph, modern global capital is regarded as the capital of the era of its decline, and is recognized as going after other ideas of Marxist theorists. As Kalganov said a little later, *«The opposite of capital and wage labor is inversely proportional to the energy of counteraction to capital on the part of labor; on the contrary, the more effective the capital forces the employee, the weaker the prerequisites for the reproduction of the capital itself»*. Aha, it is said about the prerequisites for the reproduction of capital! Hence, we must ask a question about what they think about alternative concepts of reproduction. From the indicated contradiction, according to the authors, the process of production begins to create, along with the usual material production, two polar sectors: the production of "useless-fictitious goods" and the production of "intellectual-creative goods."

The first sign of the late character of capitalism is the shift in the productive forces associated with *«the progressive displacement of man from the process of material production, "and this transition is based on" the wide dissemination of creative functions in human activities, "and on" the transformation of cultural resources in the broadest sense of the word into determining resources for socio-economic progress»*. And again creativity.

Also it is stated about the transformation of money into a virtual financial instrument: the rejection of the "golden content" – not only realistically, but even ideally – that is, it is impossible to say what is called money and how much a financial instrument costs, and it allegedly depends not on the nature of the financial instrument, but from the relationship between the largest players in the financial market. To say this is to say: "We, as economists, do not have a clear idea of the nature of money and how they are used by the financial sector." As for

neoeconomics, Grigoriev has a clear and transparent concept of the nature of money, contrasted with the orthodox and detailed ("counterpart" versus "exchange"), which excludes binding to precious metals as "monetary material," and there is a broad theoretical construction of that, what is and how the financial sector works, and how money gets into it.

According to Kolganov, an interesting conclusion to which they came in the process of studying the nature of capitalism was that the categories of neoclassicists like marginal utility and marginal factors of production «*can be explained from the Marxist point of view as a real reflection of the fictitious phenomena arising on the surface of the phenomena of capitalism*». (Quotation is verbatim and, in principle, I'm not against Deleuze's obvious imagery of the scientific language, but here it could be simpler to say – usually the floridity of speech means a breakthrough to the subject itself, but not yet a complete picture of it).

Then Kolganov said that nowadays capital is exploiting not only the working qualities of a person, but also his creative abilities. Again, creativity is mentioned! And, please draw your attention, judging by the presentation, the conceptual constructions of the author's monograph are based. Hence, we must ask a question about what they mean by it, especially as there is a clear conceptual framework within the framework of neoeconomics. According to Grigoriev and a group of his researchers, creativity, or project activity, is the production of new routines and the improvement of old ones, in contrast to the activities for the execution of the routines themselves and from the avrill-experimental activity; in other words, it is a "bridge activity" between situationally chaotic and well-ordered activities; or work to create order from chaos, it is demiurgic activity; or, in the language of the "general theory of systems," anti-bifurcation activity. Sirech, creativity in neoeconomics is a very concrete concept, corresponding to known intuitions, applied to management issues.

Looking ahead. When after the presentation I asked a question about whether the authors could say in a few words what creativity is in their system of concepts, Kalganov remained puzzled for about twenty seconds, after which he said that this was a difficult question, and redirected it to Buzgalin. He advised me to turn to a separate chapter in the monograph, where the speech is about it, as well as to G.S. Batishchev's "Dialectic of Creativity", also stating about the great complexity of this issue (while probably forgetting to add: "inaccessible to the

understanding of mere mortals "). As they say, "oil painting". But no, I naively do not blame the great and eloquent professors – apparently, like Husserl, they believe that creativity (as well as intention) is not the original concept, but the target concept. But, excuse me, do you want to liberate a creative person (or create such a person) in Marx's way, not being able even to designate the domain of definition of something like creativity, scoffing at the fact that it is "very difficult"? In order to identify at least such an area, there is nothing complicated, it can be said in a nutshell. And the concepts of creativity mentioned here reveal not a special difficulty and difficulty in defining within their framework creativity in general. And if this concept is "very complex," then it means that humans have no idea what they are operating. Then the question: where did you get these concepts of creativity and creative person, and why for all the marked things are you so accented on it?

During the presentation, I asked Buzgalin a slightly more specific question about whether the authors know about the fact that the book of economist Oleg Grigoriev was published recently. Buzgalin said that he does not know such an economist, then turned to Kolganov: "Do you know him?". "No," answered Kolganov. Well, how can they not believe it ?!

Going back. The process of globalization is attributed by the authors to the 1970s, marking it as a key contradiction to the global mobility of capital and the localization of labor (and I thought the globalization process began, at least when Jules Verne wrote "Around the World in 80 Days"). Within this framework, Russian capitalism is characterized by a significant precapitalist, feudal, component, from which its peripheral nature springs. Here there is no contradiction with Grigoryev, just as the special news is that the entire global capitalist system as a whole shows signs of movement to the feudal side.

An alternative to today's world, the authors offer a strategy of advanced development, based on real premises. And if earlier, according to Kalganov, the development of the economy determined the production of the means of production, now the development of the economy is determined by the spheres of education, science and culture – those where "the main productive force of the modern era is a person endowed with creative abilities". Since Buzgalin, who had come to that time, was silent, it was obviously the position of both authors. Here

they are not even talking about their ability to determine creative abilities, but about the fact that someone does not seem to know the history of the emergence of modern "education", "science" and "culture", generated by the capitalist era and being its contemporaries; for here there are contrasted incomparable things: reproductive macrofactors against the "production of the means of production", which is a particular importance in Lenin's private work, as a maxim spread only in a system of the USSR that does not exist long ago in the space of post-Soviet capitalism and has no explanatory power for the capitalist economy as a whole. Not to mention the fact that capitalist science, or the science of the NTP era, as well as the introduction of innovations, is the basis of capitalist development. This is a long time ago and many people have written (including several things on this subject I have), and Grigoriev's idea of the crisis of scientific and technological progress is one of the cornerstones in his neoeconomic constructs. Not to mention the devastating things about investments in education and "human capital" from V.Easterley mentioned here. And I do not even want to disassemble in detail all this conceptual confusion.

Then we talked about the development of the personal qualities of a person for the economy (one can not but agree) and the wide system of public regulation of such an economy, and therefore the Scandinavian capitalism with a socialist face was an example, hence the conclusion about the attainability of something that allows us to act, *«without jumping out of the fundamentals of modern market economy»*.

Further on, Buzgalin agreed with the above, and immediately added that modern Marxism "is not dominant in the economy, in philosophy, in political science, or in sociology", rightly pointing out that the rare authors of the neo-Marxist type working through are making breakthroughs.

The difference in economic systems and the problem of their interaction were not discussed earlier by the authors, as far as I know, and now I see a closer presentation of their ideas; and, apparently, they do not go beyond the universalistic-balance methodological setting of economic orthodoxy. In the same framework, Marx worked, and therefore it is no wonder that the authors who claim the inheritance of the theory and method of Marx work in the same paradigmatic setting, which neither Marx himself nor other authors indicated explicitly (the idea of the possibility of a "polyveral "The modeling of socio-

economic processes applied to the neoeconomics of Grigoriev is my merit, and I propose a substantive development of this topic further, an imbalance in the relationship between the economic contours and markets different in terms of the division of labor, ystviya money factor – the basis of O.Grigoiev's nekonomiks).

I asked my first question after Buzgalin's speech about whether it was possible to build the priority of the positions between Böhm-Bawerk and Rosa Luxemburg as the most cautious critics of Marx from the antagonistic and protagonistic sides who were looking for contradictions in the volumes of Capital. Buzgalin replied that the controversy between Luxembour and Ulyanov is one of the beautiful pages in history, but the authors did not enter into this layer of questions concerning the relationship between the center and the periphery. In the opinion of the authors, classical industrial capitalism has internal development opportunities, in which sense Lenin was right, although he did not deny that *«there is the problem of relations and the subordination of what Wallerstein called the periphery»*. Then again several times in 1.5 minutes, Lenin and Wallerstein were mentioned. Actually, I asked about a comparison of the positions of the economist Luxemburg and economist Bem-Bawerk about the contradictions of Marx, and not about the polemic of the economist Luxemburg with the lawyer Lenin. Anyway. Further, Buzgalin began to talk about the essence of Marx's criticism of Bam-Bawerk about the labor theory of value and the contradiction between Volumes 1 and 3 of Capital – "although this is probably not what you asked about." I replied that this is exactly the same thing. Buzgalin said that the contradiction found by Böhm-Bawerk is resolved by using the "parable about the gordian knot". That's how simple it is! But in Grigor'ev this contradiction is resolved by means of the interpretation of the "dogma of Smith" – that if Marx correctly accepted the disintegration of the price of the goods for wages and rents, then the labor theory of value would have agreed with the theory of exploitation, and Bem-Bawerk, it seems, knew all this, but did not say. But, apparently, in the opinion of the author of the monograph, the best remedy for the headache is the guillotine. Then he led a completely logical speech about the fact that the value can not be counted, and that Marx wrote about it, because it is a social relationship that can not be counted as well. In his opinion, socially necessary labor costs are an abstraction that is not counted in anything, especially in hours of working time (Grigoriev's

work is calculated in hours of spent time, differently paid in different countries for a unit of this time – on the basis of which, by the way, can be represented by the economic meaning of currency quotes). Counting the same, according to Buzgalin, you can price, which in the real economy are manifested as production prices. According to him, there is no fair and fair value.

Further, according to Buzgalin, the positivist faces a dead end, because for him that which can not be counted does not exist; and the dialectical logic with which they work, acts where one can not count, for it works with qualitative transformations and analyzes contradictions. In part, this coincides with Grigoriev's position against mathematicians, and also in the sense of the dialectical method, only in Grigoriev's approach is he deeper: he contrasts dialectical methodology with axiomatic and normative methodology, and he links the extension of mathematics in economic science to the absence of an intelligible theoretical construction (in what hardly differs from authors-marxists). From myself I will add: in fact, any logic works with qualitative transformations and analyzes contradictions, but only dialectical takes the contradiction as the beginning of constructive transformations – which, again, organically fits into the "unbalanced" concept of a non-economic research program. And where exactly does dialectic logic fit into Buzgalin-Kolganov's construction, except in the canvas of "following the Marxist methodology"? Their two-volume monograph is able to answer this question? (For the sake of justice, perhaps, it is necessary to get acquainted with the monograph itself.) Further, Kolganov recalled that the contradiction between the first and third volumes of "Capital" is an essential contribution of Marx to economic theory, which gave life to a huge stream of economic literature. So after all, the criticism of Böhm-Bawerk is a contradiction between volumes 1 and 3, and the criticism of Luxembourgh is a contradiction between volumes 1 and 2. And what does Lenin have to do with it? I see that the answer is given within the framework of what they know and see, and I see that the answer to my question is not given.

Many other interesting questions were asked not only by me, and they were given very interesting answers. IMHO, by the sum of points while Grigoryev wins. With a crushing score. Because he has his own theory, and they do not seem to have it. And theory is order. And order, as the classic said, beats the class.

## Occam's razor for neuroeconomics, or a vivid example of the exhaustion of science from the finger

The very word "neoeconomics" is newspeak, which seems to be a departure from the more habitual "economy", and therefore is the basis for distrust. Indeed, neoeconomics is news, and indeed, as a review of the 300-year history of economic science, it claims a scandalous thing: that this was in many ways the history of the degradation of this science. At the same time, economically educated adherents of classical trends, seriously and with interest study seemingly completely different forms and directions of the economy, overshadowed by no less exotic novoyuz, proclaiming the corresponding content to it by a legitimate scientific direction or scientific school and largely trusting it.

In the period of the deepening crisis of the current science of the "NTP era" and its inability to inter-faculty expert interaction on complex issues – in general, and economic orthodoxy to solve the problems of the modern world – in the case of the private (about which much is in question in this book) new directions with interesting names, receiving the status of interdisciplinary and, of course, claiming for a share of the university income pie coming from the state, sponsors and grantors of very different poses and motivations. We should somehow run multipliers and other mechanisms on investment in progress, and then, you see, they've already begun to rust!

When the microeconomic (anti-macroeconomic, economical) models, as well as clever and smooth, but with artfully hidden internal flaws, the Austrian theoretical constructs began to fail, the adherents of these traditions, in order to preserve the reputation, went deeper and deeper into the brains that make economic decisions, so that at the level of the neurobiological foundation to give a scientific justification for the economic ... by the way, and where in the wiki article about the neuroeconomy is eugenics mentioned? (ah-yay-yay) What, before these things no one studied, at least disciplined, not to mention "interdisciplinarity"? Well, how?!

Here, there is economic cybernetics, tied to a whole historical-scientific interdisciplinary layer. Its Russian representatives – the water that has gone into problems ak. Danilov-Danilyan, Grigoriev and ak. Glazyev; the latter, by the way, is the current adviser to the president of the Russian Federation (we will omit the details). About bio-cybernetics, as a little less than the immediately emerging

trend of "just cybernetics" and its representatives, I will not speak in this context, for in other contexts I speak about it fairly in this book. Probably, those who at one time not only combined biology, economics, management, urbanistics and computer science, but laid the foundations for such a connection, do not count.

Wow, it turns out, there is also such an "ancient" science as neuroinformatics, which studies the general principles of the flow of information processes in the brain. About whether this direction is a disciplinary branch of biocybernetics or not, I will not argue – I will only say that I also know experts of doctoral level with very interesting applied results.

Then (about horror!), It turns out that three old women are still alive: psychology of management, decision-making psychology, and the psychology of making managerial decisions (and their numerous granddaughters: decision-making by the manager, ... decision-making by the consumer, etc.). Let them sort out among themselves, who among them as a relative. What is important here is that the knowledge of the anatomy and physiology of the brain is the norm for any university educated psychologist. They are published in these areas of literature a lot, and psychological schools in Russia, as far as I remember – one of the oldest and most authoritative in the world. The model of Chadlen and Newsom, which is the basis of neuroeconomics, is pure neurobiology and psychology, the economy has nothing to do with it. And if something happens, then where, again, did the same Stafford Beer sow? (once again, ah-yay-yay)

Of course, I'm ashamed to talk about this, but actually a cognitive tool for decision-making, as well as a training simulator for the ability to create a basis for all the motherboards on this account, there has been a logic for centuries, within the framework of which, for the first time in the well-known history of Europe in the V century. BC. a strict scientific system is formulated (once again, I apologize for the truisms). Since then, the science of logic has evolved vehemently, taking fancifully bizarre forms, but generally the solution of such abstract tasks as "the decision-making process in the selection of alternative options, the distribution of risk and reward," which, according to Wikipedia, is studying a new, advanced, science neyroekonomika, already someone somewhere was once suggested in a much less intricate formulation ("I am again tormented by vague doubts..." – from soviet comedia).

Yes, I did not notice the elephant (however, the elephant is for a snack): Her Majesty is a political economy, as the first systemic economic theory! Since the times of "little less" Ochakovo than logic, its property is that the patterns of socio-economic processes (as well as models describing them) are not fundamentally reducible to neurophysiological phenomena, although in part they are actually described and explained – but only in cybernetic the model of the black box, because the social reality, even though it may be Aristotelian (and, incidentally, in a Beerovian way) is described in the model of the organism, is nevertheless an independent reality, to the brain, once again, not reducible (okay, St. only partially), but described in terms of the reproduction of similar and distributing tasks and functions of actors' performance. In other words, in terms of the division of labor in order to increase the productivity of this.

This division of labor exists in the system of production of scientific knowledge, an example of this – all the above directions, quite capable and capable of organizing the expert activity. They were replaced by the declaration of a "new" scientific subject and an attempt at altering the microeconomic economics concepts of things developed by others for the sake of another and in another interpretation; Only here is the interdisciplinary nature of the neuroeconomics some kind of kucha turns out (however, it does not matter: it does not matter to the grantor anyway, just to invest ... Well, invest, please!). Such an inversion of science and management practice already existed in the 1970s and 1980s, during the period when the economy of cheap loans was formed, this story is also known. Now it would be very convenient to push the similar under the mute (not unfounded, for the sake of justice) of talking about NBIC. Do neuroeconomists seriously believe that their sophisticated fraud is not noticeable? Visibly, and very. As a local ethnographer, I speak. And all would be nothing (there are Scientologists, for example, and the dog with them), but not again, but again, marketing from science pulls the blanket on itself instead of working out real problems and contradictions with the use of long-known, quite fit and productive developments.

### **Grigoriev cuts a window from the economy into urbanistics**

Many other economists who spoke about the connection of their science with urbanism could be ignored, but on August 12, 2013, the theoretical guru Oleg Grigoriev on the webinar worldcrisis.ru, as a guide to resolving the unsolvable

economic problems of the country and the world, suggested new cities, the consciousness of infrastructures in a new place, up to the delicately touched upon question of whether people in this environment will have summer cottages and similar things. The word "urbanistics" was not directly spoken at that time, but in itself the opening of the direction of the discussion marked a very important milestone in neoconical studies. What exactly?

Honestly, I've been waiting for a long time, when finally such a conversation on urban themes will begin precisely by the neocons. Well, not from the supporters of the economy, in fact, wait for it, tied to the mortgage-financial idea of "real estate"? In fact, the beginning of such a conversation means that economic discourse as such, even taken from the standpoint of an effective, progressive, neoeconomic theory (built on criticism of the neoclassicists), is insufficient for solving not even economic, but vital problems, whose nature is multifaceted and total even in the general cultural and biocenosis plans. About that, from what cybernetic pathos could the economy itself arise, there is also much where and by whom is the speech, including me here (almost at the very beginning of the book). So, on the basis of this assumption, not just reaganomics or capitalism was exhausted, but the very notion of economics as a paradigm of human-natural controllability of the world (although this does not mean that the economic discourse is exhausted). And in this sense, a small step toward a broader subject (or, more precisely, interdisciplinary) field of knowledge and practices seems to be a completely logical action on the part of an intellectually honest and free-thinking nonconformist researcher, such as Oleg Grigoriev. For what he does looks more like a solution to problems than a defense of the honor of a professional uniform.

Indeed, urban studies, as the science of human settlements, requires the development of specific language of interdisciplinary communication, since it is a kind of meta-level talk on the cash situation in the world and, indeed, is a complex of, at least, economics, sociology, ecology, system dynamics and surround design (actually "architecture"), the integrated interaction of objects of which is able to give a new organic representation and content. At the same time, the beginning of this conversation Grigoriev is consistent with the long-discussed in circles close to him the necessity of interdisciplinary experts to discuss consolidation issues involved.

A separate topic here is the question of how much the previous experience of discussion and solutions of urban issues, in particular and above all, among the Soviet avant-gardists of the 1920s, will be applicable to solving the urban problems of this day. This question will inevitably be important for all those who deal with issues in the way that is being considered, especially since they find the experience of the USSR valuable, and consider the Soviet system not logically exhausted, but purposefully destroyed by both external and internal comprador forces. In this sense, it will be important here not to throw out the inner experience of Okhitovich-Sabsovich's "dispute over the socialist settlement", which ended in favor of the first (sociologist by education, by the way), and the concept of the interbranch balance adopted by the State Planning Committee of those years. It is important not to spill out the perception of this avant-garde experience by "one-story America", as well as external authors-bison such as "more widely known" Le Corbusier or "less widely known" R.B.Fuller – in particular, his concept of highly comfortable "cars for habitation" , mobile and rapidly deployable, whose prime cost should not exceed that for a car (as well as their technical incarnations). These things would be nice to comprehend the supporters of the "concept of technological zones" taking into account Fuller's maxim "make sense vs. make money ", as well as the fact that, according to the authors of this concept, the development of technologies and industries exists exclusively within the monetary economy, tied to a loan interest, to make money, which many deny as exhausted value, as opposed to the Christian value basis. The fuller's urban ideas are also important in the sense that the synergistic vision of the world he created can now become a paradigmatic general scientific basis in approximately the same volume in which the Cartesian vision of the world once became such a basis. And, of course, Fuller's description of the crisis processes, as described in his book "Grunch of Giants" deserves a respectful consideration. For example, Fuller's single-family dwelling "DDU" of the World War II model for the Scottish heathland is quite a fitting response to the hypothetical or expected "favelas around Paris". Of course, one Fuller (and others mentioned) is not exhausted, but obviously their experience will be useful, because rediscovering it means reinventing the wheel<sup>9</sup>.

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<sup>9</sup> Another important, separate, moment: the ecological theme, contrary to the opinion of some respected experts, in urban discourse does not necessarily have to be "fascist". Rather, a sign of fascism is the genocide of managed foodstuffs of current urban areas. But this is so, by the way. There are quite a lot of interesting thematic areas.

And, at last, "dachas" mentioned by O.Grigoriev in passing: will they be in new types of human settlements. The idea of the second dwelling stretches back to the depths of the centuries (if not millennia), and the peasant-soil ideas multiplied by the ideas of their own housing fortress in Russia are so strong that it is hardly worth breaking them about the knee – rather, it should be an integrated the development of these ideas in the framework of new ideas about human communities, the forms of their material and value structuring. On this subject there is, for example, a good book by S.B. Pomorov "The second dwelling of the townspeople or a house in the nature".

All these things, of course, must pass through the crucible of criticism from the point of view of the limits of the deepening of the division of labor and the curtailment of the unproductive class of consumers.

## Urboenvironment as an emerging space of life and forms of activity in it

### Housing and Democracy

I began to deal with housing problems for a long time, and the first lines of this material were written in 2009. In any case, it is not superfluous to recall this topic at a time when the housing reform has failed, property prices are jumping, the mortgage has not become mass, and many people in Russia are still deprived of the opportunity to find their own home.

Democracy as a concept can be treated differently, but in its root it is nothing but a solution to the problem of rogue, the problem of ostracism. Denial of exile at the level of ideas and at the level of opportunity. The absence of fear of exile means every time the opportunity to find yourself a decent home (house, dwelling), without regard to involvement in a certain group. Power, oriented to the inability of independent reproduction of housing, uses ostracism as a means of repression. Expulsion also means the exclusion of space for sociality (a given sociality), first of all, the space of housing and, of course, the architectural space. The power over the housing status is one of the most (perhaps the most) aggressive and effective form of power. The most famous of its kind is the prison – the placement of a person in a specialized (disciplinary, according to M.Fuko) space, which is, first of all, a living space. A person deprived of housing, somehow persecuted, meets her Majesty Reality everywhere. A person deprived of the usual domestic (space-environment) conditions, is struck in the natural right to improve the conditions of life, to ensure the body's life. Unsophistic housing, control over residence, household restrictions – rich in a variety of means of "fine" management, in addition to placement in prison – the house of the state.

But the first natural right of sociality in a modern democratic project is the right to a sovereign closed space. Whatever the project, it is the right to the space of clothing, in relation to it – also the right to the space of private movement. Otherwise, the prison is not needed at all – it is enough to conduct a skillful housing policy. Control of housing conditions and related rights can also be considered as an elementary form of economic coercion – basic and micro-level. In Russia (and especially in Moscow) at the turn of the 20th and 21st centuries, something very similar to this kind of non-manual management occurs. The apartment house has for many decades, and almost from the time of the

appearance of such decisions in ancient Rome (however, more detailed research is needed here) is a means of determining the personality in the social space.

The army and the prison force people to determine clothes, and this is well known: robes, uniforms, there is also the non-belonging of clothes, there is also the requirement to shave off the hair (not because "lice") and the doctor's request in the military commissariat to push the buttocks and show the anus (for what, it is interesting? Is hemorrhoids an essential contraindication for military service?). But prison and army (and the hospital – follow M.Fuko) is a redefinition of internal and external relations at the level of architectural membranes. Foucault talks about the architecture of disciplinary facilities, but does not consider discipline as a consequence of the redefinition of spatiality, and therefore does not deal with questions of power over the privacy of "ordinary" housing, and does not include it in a number of disciplinary spaces. Meanwhile, historical examples and examples of everyday life show that one's own non-specialized human habitation becomes a means of imprisonment. So, the narrowness and community of space leads not only to conflicts, but it allows you to watch and supervise (and, of course, punish – where without it). The architectural and geometric aspect of power is roughly the one that Foucault in his "Supervise and Punish" in the chapter "Obedient bodies" is called the technico-political reorganization of power. Foucault wrote about the monotonous organization and supervision of private space, but he himself had a secondary idea, a landmark, in the first place he had the idea of discipline. Meanwhile, it is not completely clear that he has the idea of cell: the disciplinary cell should be general or private? It seems that Foucault lacks explicit architecture in the discourse, although the very architecture meets with him very often. One gets the impression that abstract concepts are more important for him than an object-practical environment.

The idea to build a democratic society must always, one way or another, rely on a building metaphor, at least this "build." When analyzing the issues of power over space and acting in it, it is important to identify the dominant ideas that reinforce "self-evident" habits, and the forms and methods of economic relations that determine the very possibility or impossibility of changes in spatial organization and modes of movement. The main factor of governance here is the threat of

legislative violence, as well as the risk of criminal and financial violence. Thus, the creation of personal housing can almost always be difficult due to:

- a ban on the construction of a structure in some place (or even the placement of a structure);
- the risk of encroachment on the property being built or occupying the place or its owners;
- Impossibility to build or place property due to inaccessibility of the means of its creation (high cost or lack of materials, competent builders, and means of delivery of both).

One of the most effective methods of work of special services is the establishment of the object of observation at the place of residence. This situational concept of accentuation of the supervisory function on the pre-surveillance is the key in understanding the means of resisting power over the privacy space. Looking ahead, we can say that this form of power can be resisted without violating the Other's space. The function of power over individuals is determination, fixing and replacing them in space, or manipulability and station, the latter one way or another preceding the first. This, apart from the fact that power is exercised through the sublimation of one's own emotionality, and, further, the influence on the emotionality of other people with a view to changing their behavior. One of the most disturbing topics that many people do not want to address due to its delicacy and morbidity is the housing issue, which for the authorities is nothing more than a matter of determining the personal life in a stagnant space. Settlement and localization of the masses leads to the involuntary choice of residence, whatever the Constitution and all the postulates of "universal prosperity" about the right of citizens to choose their place of residence. In a word, the essence of any power over a person is a propiska (which is always a propiska in the system), as well as creating a situation where life without registration becomes unbearable. Therefore, the main task of spatial (and any) liberation is to ensure a worthy existence outside the propiska system. What are the main moments of such a free state, overcoming serfdom, enslavement, consolidation, fixation, staging outside choice and providing housing without ownership of it, and so on, however it is called? In any case, such housing (and lifestyle) should provide the opposite of what the imperative of power says. Signs of the subordination of housing, in addition to the above points, are:

- uniqueness of residence;
- Actually, stasisibility, and more precisely, not mobiliziruemost housing, in the sense:
  - non-relocatability of residential microenvironment (no external mobility);
  - lack of choice of architectural forms and internal planning (lack of internal mobility);
- the alienability of housing, that is, external arbitrariness in the replacement of housing; it is legally justified in the case when the housing does not belong to the tenant, that is, when the right to use and ownership is alienated from the right of disposal (see A.Vysokovsky's interesting article on the pseudo-owner in the article "Comfort-Non-Hero" – "Three Squares" M., 2002); that is, the change of tenant is a priority event before the change of housing.

In some cases, the power regulates housing through:

- unprivileged (communal apartments, dormitories and all kinds of settlements from the times of the USSR and large families in the pre-revolutionary Russian one-room cottage, as well as all kinds of bored settlements and ghettos in the countries of the third and first worlds) and
- social exclusion (most effectively carried out by the way of life through the media and the corporate form of work organization). Thus, alienation in terms of housing is of two kinds: it is the isolation of the tenant and the alienation of housing as property.

Finally, the main means of internal manipulation of power with housing is

- decrease in consumer qualities of habitation or not reproduction of these qualities. This circumstance is provided by the factor of stagnation and blurring of property on walls in apartment buildings, disconnection of water/light, non-assembly/non-repair, etc. actions with infrastructure.

### **Hypothesis about the cluster sense of postcapitalistic urban finance**

Here are some sketches of what I probably will have to work with in the case of a constructive (not feudal) scenario for the development of everything that is happening in the second decade of the 21st century.

The technology that mankind must master is technology of unfolding and folding of cities, residential infrastructures in general. So far, it has been mastered only to deploy them as systems consisting of communal terminals and communications

between them, and then systematically, and only where possible and during the historical process. The curtailment of the settlements today is mainly due to military-social or natural disasters, and is not the result of conscious activity, or, so to speak, infrastructure-social apoptosis. In any case, the private and individual, and still not over, the experimental example given to the nature of Detroit – does not count. Mobile infrastructure systems are used very narrowly, as are relatively late technologies of the industrial era, and in general, all these things, supposed to develop, are not applied on a wide scale of the country regions and urban agglomerations. On the same scale, the rapid deployment of what should be capable of rapid coagulation without significant cumulative resource losses is not applied.

Of course, here a special role should be played by trade, or the financial sector. On the other hand, if profit plays a significant role in these processes, then, in any case, under the current model of economic development, it will in any case gravitate towards domination; but the general, global, trend is such that this model based on it has ceased to work. The existing residential areas were formed as markets, like feudal castles, and as the markets around feudal castles, and the meaning of the existence of human settlements in a foreseeable historical retrospective was trade and craft and agrarian production, in which historical connection and the emergence of firms emerged financial and industrial activities. So what should be the sense of mobile and fast in the design and destruction of residential infrastructures? If they are mobile, it means that they are basically nomadic, with the inherent properties of technology (novation) inherent in nomadism and resource-saving (resource-saving). Is it not to find and realize unique cluster capabilities, being limited in the relative composition of their population, adapting to the conditions of external not only natural, but also economic environment (represented, in particular, by the same entities)? The system of such mutually-adapting structures fits into non-economic sketches about the cities with a million inhabitants, which need to be created from scratch. Only this picture is now supplemented by the fact that these agglomerations have an essential component of the goulay-cities, oriented to the principle of product niche, to which the financial sector is subordinated, having profitability as an internal, subordinate to it, principle existing in the residual or in a weakened form. Indeed, this can be permissible if one recognizes that the essence of finance

is in the profitable transfer of goods from a cheap market to a road. And if we translate the clustering of the economy from the level of the country to the level of the city. Indeed, it is much easier and painless to determine the cluster specialization of production for a single city than for a single country. For example, you can take it as a rule not to ask at all about the specialization of the country in the international division of labor, until at least a few cities have specialized in this way. The fact of their specialization means relative stability of demand and trade interaction among themselves (perhaps even some kind of interaction with the "outside"), from which one can already talk about building more systemic profitability cluster solutions for the country as a whole in international markets. For it would be logical to proceed to the strategic levels of internal agreement on the fact of the proper implementation of tactical agreements. Moreover, the latter seems easier on the basis of a combination of administrative and logistical circumstances. In this case, the expected nomadic flexibility of urban environments, possibly, will contribute to the competition of technologies and the search for optimal ways of working already with them in relation to the population, demand, and inflation-deflationary pump, which, perhaps, in some local forms, will continue to exist.

### **Capitalism as a chronic disease**

What is the set of the main specific statements of neoconomics about the nature of capitalism as an economic system? It is postulated that he:

- began to form in the Renaissance (the so-called "long XVI century");
- it was not due to the universal laws of the development of mankind, but due to the accidental coincidence of certain natural and historical conditions;
- emerged due to natural causes, not someone's conspiratorial malice, in the course of solving actual problems at that time, without a clear understanding by participants in the social system of the long-term consequences of the ongoing processes;
- systematically exists with certain components and attributes according to certain principles, and is systematically reproduced;
- is based on distortions and disproportions of economic and social ties, in it the imbalance prevails;
- it is finite due to limitations of aggregate growth limits;
- for members of the system is ethically honest, but not fair.

Of all this set of postulates, detailed in the extensive lectures of O.V. Grigoriev, there follows one very significant thing: in the sum of these theses and the declared status of "social deviation" behind capitalism, the status of the social disease length of about 500 years, which has recently taken on a global character. This consequence is an important argument in the ongoing scientific dispute between Aristotle and the scientific community about the permissibility of considering the society itself as an organism, and the processes of the formation and decay of social systems by the processes of birth, sickness, and dying. From neoeconomics it follows that this is possible (in any case, whatever one may say, the theoretical avant-garde of cybernetics of the beginning of the 21st century still represents the cybernetics of viable systems).

The dispute about the organic concept of the society is quite old, interesting and in it, with the further development of this topic, you can immerse yourself. And in terms of methodology to consider, for example, from the position of system-sociological (E. Durkheim, T. Parsons, A. Sheffle, P. Lilienfeld) or geological (S. Lesnevsky, D. Lewis). And, of course, there is nothing new in the subject of capitalism as something abnormal and vicious. But hardly anyone considered capitalism literally as an organic disease of the social system, which has a centuries-old chronic character. To recognize this is to recognize the existence of swarm organisms prone to age-old chronic diseases, to which the categories of etiology, pathogenesis and clinical picture are applicable. And this also means refuting a number of sociobiological views on the organization and functioning of communities, and from the standpoint of the physiological norm, which should still find its place in the neoeconomics of Grigoriev, who denies "economic racism," but with distrust of the presumptive normative nature.

### **Developed leasing and leasing markets as possible assets of a postcapitalist non-growth economy**

Although I'm not a big fan of Robert Kiyosaki, the popular "financial economics scholar" who greatly simplifies and flattens economic issues, and badly advertising hedge funds, one must give due credit to the correct definition of the asset as an economic resource that generates income. In this sense, taking into account the fact that other economists speak constructively about the problems of linking macroeconomics (political economy in the main) to microeconomics (economics in the main), one should consider assets as a source of income of the

country (state), but also as a source of personal income households). However, the household still remains a more "macro" level than the personal asset itself, since household income can be taken into account in the family business, while personal income is a different topic, since factors that go beyond commodity-money relations begin to play a role here, and at the present time the reduction of personal acquisitions to them is undergoing a crisis. And it is expressed that the acquisition of personality is also happiness, creative self-realization, public recognition, etc. things, the source of which are intangible assets, and a very specific part of them. The distinction between macro and micro levels of asset consideration, as well as the definition of this concept, is important, since it is just from them that it is justified to proceed to the consideration of their specific types and capabilities in the new conditions.

In addition, the personal consideration of assets is significant in connection with the growth of unemployment during the crisis. Within the framework of the prevailing economic model, a personal asset (if it is a source of income) is determined by the expression "going to work" associated with a certain "workplace". Another, classical, expression, which he defines, is "productive labor," or "productive activity." The individual's ability to be productive today is limited to technological realities in which automation dramatically reduces the number of jobs, while the lack of automation contributes to the preservation of the economic structure of the colonial type. This is not to say that the technologies of the future, apparently, are aimed at the production of artificial life forms with autopoietic properties (self-reproduction properties), generally excluding the man-producer, as well as the mechanization of controls, which Marx could not pay attention to, presuming post-capitalist society, because he could not imagine it. In turn, the decay of large corporations destroys mass employment, which, regardless of the problems with the assets of these corporations (be they real or blown), leads to self-employment as a natural solution to the problem of unemployment. Therefore, today there are articles and comments aimed at forming meanings, pathos and consciousness connected with this self-employment.

Since the assets of the individual and households possessing the assets of "krupnyak" will decay along with the financial model of the economy that is undergoing a crisis, it becomes very important whether the "new assets" should

necessarily yield monetary income. If not, how to measure it economically, and if so, what should be the invariably new structure of the monetary system. In addition, it should be noted that the logical completion of the period of "financial priapism" new assets will certainly be in the real sector.

Judging by what is being discussed in economic and near-economic circles from the very beginning about the "move to the village", which is relevant both before and after the mortgage-collapse in 2007, one should raise the question of what the income opportunities in the "new village" are, whether a "high-tech village" and, finally, if there are examples of such a village and rural civilization in general (of course, we are not talking here about the so-called "global village"). For the consideration of questions about what the world will be after the crisis is mainly devoted to survival and survivors – a special social and ideological movement that, given the high concentration of various knowledge and applied competences, considerable material security of many of its representatives and even with the existence of sufficiently developed markets for outdoor equipment, in many ways remains not only a latent and subcultural, but also escapist, phenomenon.

As for the historical examples of "rural civilization", the first thing that is remembered is the Celtic and pre-Celtic settlements, where the culture was sufficiently technological in accordance with modern standards, and its outbreaks were widely scattered throughout the Eurasian space. A lot of similar to them is in Russian traditional culture, but for such comparisons you need to plunge into the topic. Today's examples of technological village farms can be Israeli kibbutzim, as well as communes like Mormons of all kinds in the United States. However, the communal character of the former presupposes a socializing-distributive relation to incomes, while the latter profess the life-style of the second half of the nineteenth century (as they say, "for taste and color ...").

The first on the inevitability of the environment are high-tech agriculture, while the latter are traditional due to socio-cultural traditions, similar to those in the countries of the Great Empires of the East that had developed trade and logistics, but did not create a capitalist civilization. Hence – the question of whether for such a new village the topic of assets as resources existing within the framework of commodity-money relations will be relevant, since the latter are an attribute of

the country and the city. But what about the village? If, following Glazychev, to recognize that Russia is a suburban country, and following Mikhail Okhitovich and the dezurbanists, to recognize the possibility of something third, something more than "a link between the city and the countryside", then at least for Russia the way of doing business should Assume such resource management, in which the extraction of "income" from them in the usual sense of the word would be a private way of using them.

What could be speculated here?

1. Stocks = resources (available), they are renewable and not non-renewable;
2. The coin is talent, buried in the ground = saving; personal talent, buried in the ground = missed opportunity;
3. Reputation = an asset, because it promotes income;
4. Regarding dating as an asset – I agree with the statement (as far as I remember, it was somehow voiced by Khazin in his webinar) that it is an asset of a period of stability, and personal skills and talents usually become an asset in times of instability;
5. To place a dwelling and farmland in one row is the same as putting an investment in "monetary material" like precious metals in one row with investing in production tools, as in savings, which is not true: a dwelling is a passive, a cost area (and invest in Kiyosaki, silly, but personally I think it's stupid to follow the advice of this speculator-realtor, not having understood), whereas farmland is an asset, an area of income sources, they are invested both in proportion to the harvested crops, and out of love for the land, and there is often a value first divide, forming a large, interesting subject;
6. Urbanistics and architecture have a whole direction of "mobile housing" – there are a lot of options, including those that can not be distinguished from stationary housing, on this subject a lot of things and by whom it was said; However, housing and farmland can be considered assets not because they have consumer properties, but because they can generate income, or have exchange value: for example, an auto trailer can be sold or leased.

If an asset is something that brings in income, then, if we talk about future assets, then we talk about the future in terms of housekeeper.

If we talk about the future of mankind with new forms of mass economic communication, which will come (if they come) to replace the model of the global financial and trade system that has ceased to work (some people even think that this is a future without exchange and trade), it turns out that we need a new economic language . In addition, the services of leasing and leasing involve considerable investments in the maintenance of assets – repair and production work in this area is very much.

By the way, I somehow read one review about the future economy (I do not remember exactly the name now), it was about the fact that the nature of material consumption in the resource-saving era will largely be based on leasing and leasing: for example, you do not need to invest and forces in excess of competencies for some everyday things that can always be conveniently rented (for example, a car, the same trailer or what else things), while the control of the state of leased items is more centralized, less plural and more manageable, and besides, it are characterized by a more massive nature of accessibility and the possibility of a more balanced decision to purchase a leased material category in personal property. Of course, leasing and renting as forms of extracting the income of the future is a controversial issue, but I think that it is worth mentioning here.

Another five kopecks for leasing and leasing as "assets of the future", for this topic suddenly seemed promising to me. They quite fit themselves into the new trend of the repair services market, predicted for households that can no longer consume goods, changing them to others without the possibility of any repair or repair, the price of which is close to the price of the goods (as it is now). In many ways, leasing and leasing are based on repair and maintenance of assets at the proper level of their consumer qualities, and these are forms of relations of any scale, where repair processes are supposed to be real business.

About irresponsible people, able to break all the others that they trusted him, of course, you can talk about renting, but this is a matter of level of consideration. If these are the same guys from the "middle class" who today "irresponsibly" do not return a loan for the TV (because they also took a loan for an apartment and a

car, and the work "ended") – then yes, but rent and leasing does not necessarily have to be credit – moreover, they can replace the loan itself. And personally, I do not know if dishwashing in cafes and restaurants was a mass phenomenon, and after all, the dishes there is a commodity good, rented to the personal responsibility of the visitor (some establishments, by the way, expose a separate price for it for particularly violent or sloppy customers).

Speaking about the lease, I specifically emphasize the rental and leasing, and it is their developed markets. In addition, it seems, in this case it is about the responsibility of both individuals and legal entities, including state structures, and in the latter case it is possible to provide a truly productive public-private interaction based not on cutting (for a renovated source of income leased urgently, it's not only impossible to steal, but it's not profitable, although here one should also think about "renewable" contracts). Responsibility control here is much more convenient, since less operators are less, and the nature of consumption, including risks (including insurance) and depreciation, is easier to take into account.

At the same time, the very structure of responsibility in the case of leasing and leasing (both trade and economic relations in the period of scarcity of resources) for both natural persons and legal entities ("microeconomic" firms) is softer than in the case of credit, there are no collectors and other such crime. As for the "macroeconomic" consideration, the developed leasing economy, at first glance (although this is only a hypothesis that requires verification) has the ability to combine market components with components of flexible inter-branch management, and repair production with flexible production systems that can avoid overproduction.

These circumstances, in turn, are capable of providing a reorientation of today's info-industry from finance, pornography, advertising and propaganda, its thirty-year drivers, to the real sector, driving the processes of managing complex adaptive systems and producing "useful content," including closing technological and scientific.

The development of rental markets at the same time means a change in the nature of commodity production, but, of course, will not abolish it completely, as well as personal possession, and even, probably, private property (only this will

hardly be the "power" of private property). In this sense, it is useful to recall Adam Smith, who argued about the need to move to the state of many small landowners from the state of tenants of the land, owned by one large owner. However, this type of lease is rent, whereas all of the above is concerned with leasing a predominantly inert, production, considered as a hypothetical economic alternative to a "growth economy", involving productive work or production. Here, another important difference is the one related to the origin of money, when a product of own labor partially satisfying the producer exchanges in its surplus for another product of another labor, provided that the parties have mutual need for these products and have a single measure of their value. In the case of non-rental, a single measure of value can function in a somewhat specific way, since in this case the concept of surplus itself may disappear, although the notion of labor or its value equivalent remains (in the case of maximum automation of the production or repair process); In addition, of course the consumed benefit is not fully acquired and is already considered to be a renewable resource asset, which means that there are grounds for demand for closing technologies.

What is said about leasing/renting and repair here is tied up – this is all about the issues of integrated design as a kind of project activity, addressed to the world of life.

### **Local finance: a small clarification of concepts**

To O. Grigoriev's conversation about the new urban settlements of a million people as a means of solving the economic problems of modern Russia, with the formation of the financial sector in these settlements as a means of working on the difference of economic potentials, with the actual recognition that at the global level financial capital has ceased to function. The local capital understood in this way, however, does not at all mean the so-called regionalization of financial markets. Here it is necessary to take into account the fact that when we talk about the regionalization of financial capital, then, as a rule, this means the disintegration of global financial systems.

Neoeconomics actually confirms not only the conventionality, fictitiousness of money as such (with regard to my own reservations – semiotics), but also that both financial and industrial enterprises can be present in both the real and

financial sectors. Therefore, the financial sector itself, attracted to the new residential areas that are being proclaimed, is a sector of the initially local level, created and attracted to the scale of the city with a million-million population (2-5 million people). In fact, this is a local merchant. That is why such a financial institution working inside and between such cities can no longer have a global scale (or global memory) of its own activity.

As for the memory of the financial sector operating in the locks, its important content, ensuring the business interest of the enterprise's survival, must always be the consideration of the limitations of its own growth – first of all, territorial; in fact, this means voluntary renunciation of any M&A in the modality of "power business", and internal recognition of the right to exist competitors. Can such businesses exist at all? Or does this mean the availability (and the requirement for availability) of more general social regulators, such as those that the Centre "Neoeconomica" studies on examples of Swiss and North American constitutionalism? If we postpone the last narrative forming a separate big topic, then voluntary self-restraint must for sure be either something like a "code of honor of the Russian merchant class" or a memory of what the matter ended with – the thermal death of the economic universe. But will a particular "financier" in his locus exclusively concern himself with his own business, especially if his affairs go uphill? Ordinary logic, as well as historical discretion, suggest that, as the situation improves, the "financier" either thinks about the eternal and high, creating the Renaissance, or (centuries later), realizing that his position in the world of people (and, further, in his understanding – in the universe in general) is key, seeks to develop this position more and more, to build a degree, simultaneously contributing to the creation of unseen things like the IT market, and even more convinced of its own demiurgic significance.

All this means that local profit-making must somehow be some kind of private daily routine, structurally different from that in previous eras and on any territorial scale. Neoeconomics affirms the nature of financial life in the format of a territorial empire as a form of social management. However, she also argues that neither the territorial empire nor the national state can be solutions for Russia, and therefore develops a special concept of the project state, taking as the base examples these types of constitutionalism. Meanwhile, in the case of new urban

environment, local finance should always be considered within the framework of the concept of the project state.

### **Outsourced chebol**

Above it is said about leasing and leasing as directions that are quite likely to become a trend in the situation of a general drop in demand, as well as about the need for new forms of financial activity, and that for them some problems that are almost an oxymoron must be solved. In the last document, of course, it was about "local finances", but even without regard to the spatial localization of these, the thesis is that the financial component of the economy should be, but that it should be some other than in that known historical non-economic) consideration.

In connection with all these things the question arises: how is outsourcing understood today? First of all, the reasoning about this kind of business assumes that companies engaged in it specialize in one of its kind: IT, finance, personnel management, logistics processes, subcontracting, marketing communications, etc. That is all that is able to save the costs of the firm for fixed assets and business processes for an acceptable bribe. The second thing that can be noted is that, as a rule, outsourcing is, at least, rendering services to larger companies from smaller ones, although there are exceptions like IT (SAAS, PAAS, IAAS). The third is that customers of outsourcing services themselves, as a rule, are not engaged in outsourcing. The fourth is that the concept of outsourcing, as a rule, has little to do with renting and repairing (despite the fact that somehow they were taken to the neoeconomic seminar); this is primarily because, as a rule, outsourcing is understood as transferring tasks to an external performer that in other cases would be performed by the forces of the contracting firm of such services, while rent and repair themselves are not understood solely as transactions in the system of business communications (for example, renting a bicycle in a park, or repairing a handbag), whereas outsourcing is almost always understood as a business relationship. And, finally, the fifth: even at the seminar, the notions of cluster and outsourcing were given in the list, without communication with each other; There is also a lack of communication in other, widely used, uses of these concepts.

Having this set of features, it is possible to carry out meaningful switching in it in reference to the empirical existence of firms. First of all, you can outsource not one, but several directions, just as you can rent a variety of things in one rental. In addition to the fact that the rental itself (and, incidentally, repairs) can be arranged as an ordinary supermarket, working on more or less highly differentiated items of goods (in other words, repairs and rentals, and not sales, everything and everything – such solutions are already available, in any case, in Internet versions), and can be aimed at end-users (the real sector), a separate business can assume a set of outsourcing (rent-repair) services of various directions, integrally providing the life activity of the firm to some extent.

Does this mean that the supplier of such an integrated, outsourcing company should be large? It is not necessary, although, of course, for the greatest differentiation of activities and effective depreciation of fixed assets, this must inevitably be a large structure. How in this case be given the fact that a significant part of smaller customers of outsourcing services reasonably fears information insecurity, dependence and even absorption?

In order to avoid this, outsourcing activities should be of an infrastructural nature and be supported by contributions to the contiguous to it and its capabilities. The result is an image that is different from the image of the customer company, which is nestled on its money by a host of outsourcers (like the hippopotamus birds): here it is like a tree, shiny balls of many smaller (or just small) firms, saving on costs with a large structure specializing on reducing the costs of customers acting as its customers. That is, the order for outsourcing services here is an order for the infrastructure, or some kind of security environment.

In fact, today outsourcing is the basis (or rather, a starting point) of the division of labor at the level of organizations, but if its usual form is the budding of small but semi-financed firms from a single, obviously larger business, largely dependent on it and its finances as from the client, the new format assumes the initial creation in the center of the non-client of such services, but the supplier of these products, earning the cheapness of the end products of small and (okay, recognize their existence) medium-sized producers, in ensuring, ultimately, mass demand. Such an outsourcing supplier is an infrastructure supplier and can be formed in a consortium by market participants, with a floating (roaming) membership of the

participants (who can change the territorial linkage or come from their territories).

Further – the question: how to prevent the transformation of such a single, and therefore certainly a large, infrastructure player into an infrastructure monopolist? Monopolist – a player in the financial sector, squeezing the market less profitable. The sole purpose of an outsourcing major player is to displace smaller outsourcers parasitizing the pool of its customers and non-accessible parts of the infrastructure. If he begins to squeeze out his customers from the market, it can only make sense if they themselves are subauthorsers or subcontractors, and their own markets are preferable to the larger ones than the market themselves as customers. But in general, the question here concerns either how not to let the infrastructure outsourcer become profitable, or how to make it a "new" financier working with the principle of limiting profit growth, that is, in violation of the main financial law "money to money".

Collectively created infrastructure outsourcer, working in many areas, already forms a cluster. But it will not necessarily be designed in an industry way – rather, an industry will self-organize within it within the framework of solving specific demand problems, it is an adaptive system. And here it is necessary to distinguish such a system from the technopark and the business incubator, for it is very similar to them.

A business incubator is usually understood as a system that provides start-ups with office and financial means, and, in some cases, storage facilities and legal support for future revenues. In the technopark, the rent of production and experimental facilities and sites is added to this, in addition, to the account, again, of future earnings estimated at the investor's risk by the criterion of the ability of the investment object to pass to the routine format of activity. Unlike these forms, the infrastructure outsourcer: 1) has a clientele is not necessarily start-ups (whereas start-ups can receive funding from outsource outsourcing customers); 2) outsourcing works and forms a line of offers based on the flow of customer orders, rather than a standard set of incubation services; 3) financial relations of outsourcer with customers are not necessarily venture.

It should also be clarified, what are the opportunities for the survival of such outsourcing structures in a competitive environment. However, on the whole, this

issue fits into the framework of the noted problem of monopolism, which has yet to be returned in more detail.

### **Hypothesis about real sector trends in the IT industry, or crowdhedge as an opportunity**

Summarizing what the various experts say about the possible prospects of the IT industry, beyond the paradigmatic tasks of the financial sector and the media industry, thanks to which this sector has grown and developed over the past 40 years, but which obviously exhaust itself in its present form, in terms of the demand potential a small list of directions for the development of the real economy sector. From this list, we will immediately exclude the infrastructural, or information-logistic, segment of local infocom-networks of "last mile" operators. Taking into account the fact that the general trend of trade turnover, incl. small and large, in the conditions of falling aggregate demand, will be oriented to leasing and repair markets (references to various authors and discussion branches are omitted), and also taking into account, as additional to the presented opinion, some economists on the rise in cost of technology against the background of cheaper prices raw materials, as a result, at the level of real goods, we get the following set of directions, considered as a general, regardless of the scale of business:

- M2M-Internet (Internet of things);
- network rental of personal belongings;
- network repair services (including small ones);
- network medicine (including medicine as a bioremediation).

This set of directions is taken irrespective of the scale of business – primarily because developed medical reproduction in its entirety can not be reduced to small economic forms, since it assumes a high level of knowledge, technology and the related division of labor. In terms of meaningful concretization of the indicated areas, one can cite:

- services for remote diagnosis of the object of lease;
- services for assessing the availability / availability of the rental object;
- rent recommendation services in relation to the demand situation in the micro-region (locus);

- services recommendations of the best repair teams based on the results of system diagnostics;
- Internet accounting services for small businesses.

Total, we get the coordinates "M2M-telemed, repair-rent", regarding which you can build clusters of market presence.

The task is to determine the demand moments for these coordinates and, according to the results of their monitoring, cloud work and crowdfunding can be carried out within the network services. Since (within the framework of broad neo-nomadic discourse) there is a certain sense to talk about regionalization and the task of survival of loci, these coordinates must be somehow considered and adapted for small businesses. In this case, for online e-commerce, taking into account what has been said about prodding, leasing and leasing, a peer-to-peer principle is proposed at crowdaming Internet sites and services (aimed at small start-ups), working according to the principle of "the more projects supported, the more likely, that they will support you. " The basis of support is the thematic contiguity: it is tagged separately, it is described in the text. Here – the field of application of advisory linguoanalytical solutions on topics concerning the scope of the description. Here, services are also possible on the basis of the principle of pension netting (today there is money, tomorrow – no: support today, and tomorrow will support you!). On this hybrid of electronic peer-to-peer and self-help fund, a kind of service of crowoodhead may arise.

How to form a capitalization on sharing among important people a strategic essence? Is it possible, or is it still "make sense vs make money"? Most likely, the demand should be sought where the financing of enterprises is sought. And this is another argument for creating crowedhead (the principle of "sell – promise to buy"). Within its framework, taking into account the crisis processes, the moments of demand from the half-shadow small business are:

- demand for cash (kraudfunding);
- demand for support (crowdsourcing).

Taking into account what has been said, progaming, shadow and IT trends, the demand coordinates will be telemed-hack, M2M-P2P, repair-rent.

Thus, we obtain an extended three-dimensional coordinate system of directions, which is quite capable of indicating its suitability for determining the structure of the IT industry. Of course, this system is certainly not absolute, but for me personally it seems to be universal for the emerging economic conditions.

## **Some speculations about the possibility of transhistorical continuity: a comparison of the views of Grigoriev and Nefedov**

Now others talk a lot about transhumanism, about the creation of a new person who does not know illness and death (of course, I mean all sorts of things like the project "Russia-2045"). This topic, being seriously posed, raises the question of identity: "who is the subject?". In contrast, I would like to ask a topic, so to speak, transhistoric, related to the question: "Will there be a subject?". What kind of person is he, and where will he come from? We are offered the idea of a human robot, but in fact something similar was already in history, especially in the recent. And with him, with a man who from himself has been recognized as doing something less than a robot or an idol, almost all major problems of the present, whose roots have a very long history, are connected.

About ensuring the continuity of the Civilization, shaken by the blows of the catastrophes of History. The problem is that the transhistoricity (if not the actual historicity) with which one has to deal is often just a fragmentation, which immediately turns History into archeology a-la Bart. The question of who and how will be able to transfer valuable further with minimal fragmentation (or with minimal damage to fragmentation for the whole).

### **Where does "transhistoric" come from?**

Some time ago I wondered how it would be possible, if not "eternal peace" to receive, then at least preserve the cultural heights reached by generations and ways of organizing life (I do not want to talk about "farming" and "economy" ") In the form of the most systematic, detailed and multidimensional memory of them, carrying this memory through the whirlpools and vicissitudes of historical crises and disasters. After all, guardians and memory carriers always make up a special, elite, level in a specific social system. This level is also stretched in time, has its own historical process. Because of public crises, both the memory-holders themselves and the fruits of their labors are left to the will of the elements, and the process of transferring achievements to subsequent generations, greatly decreasing due to depopulation, becomes uncontrollable: the memory of centuries and peoples is presented to them like "seafood" thrown out on the shore by a wave – more often than not, in a very shabby form.

Such a journey through history should be connected with the awareness of resource prospects through the generation, as well as with the realization of the typical specifics of these prospects: when, after how many generations, and what resources will be scarce and which of the non-deficit ones will be a substitute for them. This is also true of raw materials, as far as information resources are concerned. The transhistoric must predict a catastrophe in its type, as well as a way of preserving it. But what should be saved? Are the achievements of civilization and mores that represent the first movement of the heart of a responsible intellectual, or are the economic foundations of these achievements lying on the other side of these things and constituting the movement of a sophisticated heart – the foundations of poverty and wealth? What, then, is to be saved—are it really the forms of human greed and despair? The question concerns how and to what extent it is possible to choose out of total civilizational crises and catastrophes consciously, rationally and controllably, if one decides to recognize their cyclicity, inevitability, and the principal problematic non-comprehensibility. Here, I can only recognize, after Fernand Braudel, that perhaps the entire sum of circumstances and observations combined in the notion of Malthusian-Ricardian cyclicity is the factor of the historical process in front of which all the others fade. And that there are no counter-arguments against recognizing it as the essence of the historical process. The only reservations that should be added here, however, are that these cycles, firstly, constitute the essence of the historical process throughout the known historical science of retrospect (and therefore it is permissible to assume in the past some decisions that are not yet known) ; and secondly, the fact that so far all attempts known to this science to control the whole or somehow radically influence what is happening within these cycles have been of little success, with the possible exception of capitalism (as Grigoriev says), but this "Formation" reproduces itself in expansion, but today it ended due to the finiteness of the planetary territory. First of all, because they were carried out, and are still being carried out, by actors immersed in the system of these processes, these processes reproducing by their actions (and therefore it is permissible to assume as a strategy for solving a certain exit into, so to speak, historically neutral locus). And the point here is not only that overpopulation and shortage of resources, known from times earlier than the Huns and Ancient China, produced famine, epidemics, wars and the radical depopulation of mankind due to lack of observation, lack of formation, or a complete lack of knowledge about such cyclicity of those managers, that they

were put forward by circumstances and people in their place. The fact is that the management of such cycles complicates the above-mentioned situation "object position – superposition", only with respect to preserving not achievements and detailed memory, but the social system proper. In other words, the fundamental difficulty of a fully conscious approach to managing marked cycles of even the most determined personalities, not to mention the mass of researchers, most of whom (due to, again, the natural human property) most often refuse to go to the end in their own reasoning on these cycles: really, how to talk about the most gloomy circumstance of the initially "gloomy science" (but it seems to have been corrected afterwards), if you know that it is hardly necessary to expect an answer, and zhno only within the limits of scientific somehow predict regularly reproducible times fresh, naive, not endowed with the historical consciousness and scientific memory, and does not at all substantiated, the joy of life between bouts demographic nightmares? This is the question of the meaning of life, the long-range planning that separates a person who aspires to the great and eternal, from the pig-dwelling in the momentary consumption of Heidegger's das man or again returning to the "natural" state of the Weberian "organized" but fussy entrepreneur. It is this unsurpassability of the fundamental nonsense of human life-making that causes cognitive and emotional disorders of many researchers, and they either refuse further searches or leave the path of sober consideration. In this they turn out to be something similar to the late-antique Stoics, among whose key representatives there are so many suicides: no wonder, since the peak of the popularity of Stoicism is due to the collapse of the great empire, and partly to the period of the great social catastrophes that follow it. All this – not to mention such a seemingly "secondary" circumstance as the incommensurability of the average term of one human life with the average terms of historical cycles, whether it is Malthusian-Ricardian or Khaldun.

From lectures on neoeconomics, it is clear that the Malthusian-Ricardian cycles are a sign of the use of natural resources by society and a sign of a system of feudal relations that has been overcome in capitalism as the division of labor deepens. The division of labor, in fact, is the first, natural and spontaneous, response to the elements of the demographic cycles. When the maximum of members of a society is involved, in the limit – everything, and everything, in the limit, are the beneficiaries of the labor of engagement. And the specialized productivity of each is important in general production. Now, as the modern societies return to the archaism of feudal relations, there is a risk to return to the resource-demographic

cycles with all their charms. This problem will be overcome by the "new capitalism", or we will get something new – it is not known.

Meanwhile, even in capitalism, the fact of the functioning of labor as a commodity, but not only, reveals a disproportion created by Marx. The work always turns out to be at a certain meta-level, and therefore it is alienated in the value added to them in favor of those who dared to go to this meta-level, having risen above the mass of ordinary laborers and organizing it, and therefore considering themselves in a greater right to a share of revenues before this mass, obtained from her own works, because, without the organizer, there would be no income at all.

On the other hand, the difference between the natural and technological division of labor discovered by Grigoryev and the difference in the avarial, project and routine activities considered by neoeconomics set another aspect of the problem of alienation. Actually, the creation of a routine is aimed at the transformation of labor, in its original meaning, the action of overcoming difficulties and solving problems, into organized work as a rule-like expenditure of forces in time. Thus, a person formed by routine, according to Grigoriev, is a person transformed from "natural" into "rational" by the creative power of the demiurge entrepreneur, which embodies the authenticity of creative activity in the realization of projects as the creation of routines. Such work-work optimizes the expenditure of forces and resources, but, being limited by itself, introduces into it idiocy without regard to "farming". That is, if the universe of forms of activity is exhausted by these three, then one person must somehow have the possibility of their conscious and rational change as a physiological norm. Only in this case man will not be an appendage of the machine.

In addition, here arises the question of the meaning of routine activities: when I see a genuine or high result of any creativity (and almost always it was art, and let's say that project entrepreneurship is also art), the first thing that happens – some changes in my virtue, for creativity ignites, inspires, surprises, etc. I do not dispute at all that this effect has an industrial dexterity or adjusted forms of the machine. However, the enthusiasm, as a rule, connotatively does not fit in with the routine – what's the matter? Routine is, as a rule, something monotonous, monotonous and boring, but necessary. Therefore, in a person's

life, vital progress is needed in the routine dexterity built into the production relations (into the division of labor system), and also some kind of work that is within the boundaries, the workaholic. How can they be combined, if they are different? Again, given the fact that the entrepreneur himself invariably runs the risk of falling into the trap of a job, even having built up his routine, and drives economic science with his advisory requests. If we take the same organic-holistic metaphor, then routine for the organism is nothing else than the normal work of a certain organ, which normally does not feel, does not make itself felt. That is, the meaning of routine is in the inconspicuousness of existence, and the activity for its implementation must invariably become a habit as one learns routine routines (or as a combinatorial mastering of the available subject-technological set) to the degree of liberation of the individual to creative activity (but here already pure Marx, and irrespective of the differences in the understanding of creativity by Marx or Grigoriev). Meanwhile, when the level of the division of labor changes, the "organs" of routine processes begin to be felt, including those that are transferred to machine execution. Is not this the basis for all kinds of technogenic collisions and catastrophes, additional to the basis of wear and obsolescence? Since both labor and machine production of routines is part of a coherent system of interrelated chains of division of labor, it is not always clear, management collisions and technological disasters are often treated in a strict alternative, within the framework of the question of the primacy of one of the clauses. And it turns out to be some switchman, and not some abstract need to start the process of chaos of the existing system of routines – that is, for example, the transition of the routine system to the system-wide emergency work that did not take place before the integration of individual routines that once appeared due to the ordering of their own "all hands' job" (avral or AOD). To convert this work back to homeostasis, it is not enough to pass the stage of classification of the experience falling on the head (in the specific case, global); here we need exactly what is mentioned, *virtus*, which turns this experience into a productive solution. But is it justifiable to say that the action of this *virtus* (again, "phase transition", if you like) is routine in itself? Imagination and *virtus* are proportionate categories, for them both are commensurate with the Kantian *transcensus*.

The issue of dealing with democracies was considered to be allowed for many areas of knowledge, since the very idea of them, laid by Malthus and Riccardo, began in the era of great growth caused by the NTP and the industrial revolution, and therefore the problem was considered not particularly relevant, because it was perceived as fundamentally solvable by means of unprecedented achievements of this same NTP and this very revolution. Recently there is a suspicion that the roots of the problem of growth limits spit on the level of technological development, and the fact that the Forrester-Meadows, system-dynamic, problem of the limits of growth is a concrete historical manifestation of the more general problem indicated by Malthus and Riccardo. That is why today some people raise the question of the global culture that existed in remote antiquity on Earth, something that even surpassed the current global culture of the era of scientific and technological progress, and sunk into oblivion as a result of some cataclysm-such an interest can be fully explained in the light of what is happening today.

Is it possible to ensure the overcoming resource and demographic cycles of the deepening of the division of labor, without deepening it so as to avoid the reduction of the personality and its exploitation on a cheap and heavy workforce? Is it sensible at all to seek an answer to the question of whether the game is worth the candle? Finally, according to Camus: is it worth living life, if the whole life consists in "running around the chairs" – a game rather primitive?

In search of an answer to this question, we give below the Nefedovian constructions, taken as a remarkable example on the basis that the components of his historical concept are found in Grigoriev's lectures as a means of clarifying and developing neoeconomic ideas.

### **Question about the answer: Nefedov's history and Grigoriev's neoeconomics**

It is the attempt to find the answer, and not the directions of its search, which seems to be the main problem here. Mastering any natural process, even macrosocial and constituent, neither much nor little, the essence of Human History, begins with a correct understanding of the essence of the process itself. On the way to the study of resource-demographic cycles, something very important has been done both in historical science and in the science of

understanding economic management-the use of resources and interaction about their use.

Does this mean that considering the demographic cycles, we need to take our mind off what the neoconomics says about Malthusianism, and to consider the historical position separately, or to go straight on the way of a pithy comparison? But is such work meaningful? After all, its ultimate goal is to enrich the non-economic concept, if it is in its position. Before going any further, I see it sensible to jointly say (to enumerate next to) some kind of "hard" reality in the form of a set of theses that combine the key positions of both approaches as relevant to reality – not in the sense of self-valuable axioms that "do not require proof," but in the sense of "valuable postulates that have already been proved and explained" (and that is why they do not require additional explanations).

"Historical-cyclic" postulates [8]:

- "fundamental discoveries" in weapons technologies expand the demographic niche of some people among other nations; historically, the main forms of economic activity are sedentary and nomadic;
- the structural basis of any society more or less formed is the state (usually in the history of a personified monarch in one person), the elite (usually after the dead armed and, as a rule, the alien aristocracy) and the people (usually peasants), due to resource hunger;
- first of all, the weakest and most vulnerable are peasants and artisans (people from peasants to larger cities with resource shortages), first of all those who are not armed or restricted in the right to arms;
- in the interaction between peoples, regardless of the size of their ecological niche and the status of domination, there is a process of diffuse interpenetration of technological and social organizational forms – primarily those that provide an ecological niche – military;
- in the conditions of demographic growth and lack of resources, the concentration of the latter occurs in the hands of fragmented elites (it is characteristic that this period is called the period of compression – this may be important for some explanatory allusions from the position of basic intuitions of "compression and stretching mechanics").

Neoeconomic postulates:

- we do not know well how the state, elites and people interact throughout history, because our perception of them is very much mediated by the formal approach to history proposed by Karl Marx and, inspired by several generations from the school bench as self-sufficiency, contributing to the uncritical perception of the phenomena of the state, slavery and private property;
- the essence of money, in the first place – the distribution of resources from the state warehouse to state people, and only in the second – trade exchange, built on price differences;
- first, the most qualitative resources are consumed, then less quality ones; the goal of any production process is to replace a rarer and more expensive resource (irreplaceable or difficult to replace) with a less frequent and expensive (easily and quickly replaceable);
- short-term or near-term income is valued more than deferred;
- the measure of the complexity of the products produced is due not so much to resources as to the number of people employed in the production process;
- nomadic intervention in a sedentary locus is the basis for the formation of a xenocratic state.

Having fixed these things, I will take them into account in the future to form new moments of the narrative. I will draw your attention to the fact that, according to Grigoriev's lectures, the state and economic features of the nomadic and sedentary, and the relations between them, are part of the accepted conceptual frameworks of neoeconomics.

In addition, it should be recognized that the resource and demographic cycles also constitute, perhaps, the most important moment of linking the economy to history, and it is hardly worthwhile to give any additional evidence to this (about the issues of the relationship between economists and historians is presented in part 2 of Lecture 2, O.V.Grigroryev). In this sense, everything that is known about the relation of reproduction contours, poor and rich countries, the distributive role of money and the notion of a division of labor based on the demographic

factor, known as the beginning of neoeconomics<sup>10</sup>, and all those incredibly complex problems, that within this framework directions today are considered in connection with the issue of state management of society, it would be, as said above, quite appropriate to consider from the point of view of historical narrative, which is the basis of resource-demographically approach – the more so that the narrative approach is a key methodological feature of neoeconomics in itself.

On the other hand, because of neokonomiki it follows directly that the inherent humanity today capitalism is a kind of pathology of its development as a swarm organism, so far the change of the body, depending on the resource composition of the medium may also be subject to a system of correction, to the original setting on the invariants optima personal consumption regardless from the phase of the cycle (with the initial setting for the phases of compression and catastrophe), with the conscious optimization of the body's resources "humanity" in the mode of starvation, which it will be easier to transfer relative to such invariants, at least, in the period of recessions and deficits. Of course, the call to live modestly is not new – a different matter, as it sounds, how knowledge and consciousness of it is provided, and if any of it at all moralizing (except for "dietary", of course). Grigoriev admits that in a completely new urbosredah possible to realize resource saving technologies, previously constrained by dependence on inertia infrastructure establishment. Technologies, the embodiment of which will be connected with the realization that transhistoricity should become the main task of the elite of a new type. And this is a task that goes beyond Protestantism (modernity) and post-Protestantism (postmodernity), and it is connected in some way with a cooperative and self-organized reflecting person who realizes his activity in the imperial macroscale, but removes the problem of growth by an open principle of the device of a scalable rhizomatic system. At the same time, however, the question arises: "and then what?". After all, is it really possible that after another "500 years" we will get the same in these new, residential areas, plus the old agglomerations with the same history given to nature (well, or agriculture)? Excuses such as "it is necessary to solve current problems, our descendants will take care of long-term problems" are inappropriate, since this is the very transhistorical question – the question of the strategy of life in the highest and long-term sense (much more important, by the

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<sup>10</sup> <http://neoeconomica.org/theory.php>, for 10.2015

way, than the question of the resource consumption of the next few generations, facing the world at the beginning of the 21st century, this issue seems to have been solved by the de-urbanists during the "Spore on the Socialist Settlement" of 1929, only their project was swallowed by the Great Depression, and this their question is no less, than the ones that face the neoeconomic discourse: the guys argued, neither more nor less than about where to live *in principle* – neither in the "bourgeois" city nor in the "idiotic" village – in some third, and the answer to this question was found. It is remarkable that even then, and now the brilliant Belarusian is at the head of "bright thoughts", and that, as then, and now, the blossoming glade of productive decisions is threatened by a whirlpool of global chaos... however, this is a special story.

The first assumption about the possibility of controlling the impact on resource-demographic cycles may be related to the assumption that the key components of the structure of social interaction realizing these cycles can be reproduced with a certain stability (and, perhaps more importantly, cultivated) in the historical process. The second assumption about this possibility is the use of principles of resource saving – reproducible, cultivated and potentially developed in the framework of this process. Of course, the requirement of a sober view requires recognition of the fundamental non-comprehensibility at the present time of such a cycle and the dramatic effects of social interaction associated with it. Actually, as noted above, neoeconomics just states that the deepening of the division of labor, and the associated principles of replacing resources, have just become the main way of such a controlling influence on these cycles. Being a chronic disease of mankind, capitalism just became a disease of overcoming the homeostasis of demographic cyclicity. In addition to these things, the purely historical question should be clarified: who were the survivors of the demographic crises and in what conditions did they succeed, when other nations died from 2/3 to 9/10 of the population? After answering one way or another about him in the same style of dating and graphs as Nefedov, one should further ask whether it is possible to extend these strategies to more people, or this opportunity only creates another scarce resource and will only aggravate the crisis; and is it possible to apply these methods and means for conditions when overpopulation and resource deficits have reached the limits of the Earth?

In two books of Nefedov, one of which is devoted to the analysis of the factors of Russian history from the time of the Scythians to the Time of Troubles, and the other – to such analysis of the history of the East, the basis of its construction is openly declared. It is a synthesis of three historical concepts: J. Holstein's "structural and demographic" considering the transformation in the system of relations "state-elite-people"; the theory of the "military revolution" of M. Roberts, linking the expansion of the ecological niche of the people with the so-called fundamental technological discoveries (allowing them to master new resources and opportunities), a private but principled case of which is "a new weapon or a new tactic that allows us to expand the boundaries of habitat at the expense of neighbors "; and the diffusionist trend of historical and anthropological thought, accentuated by Fritz Grebner's theory of cultural circles, based on the postulate that every cultural artifact is produced once and in one place, after which it spreads to other places. Mutual patching these explanatory holes of historical empiricism by these concepts allows the author to build a model of the historical process, consisting of three factors: demographic, geographical and technological, and the technological factor is integrated with the economic one. At the heart of the historical process, Nefedov has the demographic cycles of Malthus-Riccardo.

Another important factor underlying the construction of S.A. Nefedov is the relationship between sedentary, mainly agricultural, and nomadic, mainly cattle-breeding, peoples, which are the basis for the formation of class states of the so-called "xenocratic type." In this case, from his books (especially from the book on the history of Russia), an interesting conclusion follows: it turns out that if we consider the most ancient versions, then the first of these peoples are usually rich in resources (first of all, food), but are technologically poor, while the latter, as a rule, are poor in resource (first of all, food), but more advanced in terms of technology. Generalizing Nefedov cited references certificate ancient historians can conclude that nomads much hardier strong brave adept, inventive, disciplined mutual responsibility, and are much more risky conditions of natural environment, rather than settled. But it also means that it is this nomadic, imperoobrazuyuschy, the people, rather than localized people-oriented, relatively speaking, on the formation of the local nation (although, of course, to form their own "national state" need special conditions in the form of a set of rural, medium

and large-scale settlements, as well as a certain critical mass of the population). In this sense, the nomad turns out to be an organized person, but in a special, non-Weberian sense.

Here it is important to note that in the same books of the historian there are examples of other, purely agricultural, societies having a sufficiently high level of both technological and social development; However, this is explained by the fact of the seizure by another agricultural group of another group – that is, by the displacement, due to the resource-demographic pressure, of a certain mass of the population from its territory to foreign territory with the aim of capturing its resources and class domination over its inhabitants, followed by the formation of a privileged caste of soldiers in a new, synthesized, society. In other words, such an expeditionary movement of sedentary people can be interpreted as a nomadic action. In addition, the formation of estates in settled societies is connected not only with the invasion of nomads by Nefedov, but, strange as it may sound, with the emergence of precisely that class of protectors – accumulators, concentrators, resource compressors (including memory) – priests who were formerly the heads of warehouses (resource bases), first becoming temples, and subsequently – private corporations for this resource. The question is neither idle nor new. The interests of the elite, combining a sedentary view with a nomadic one, should become different with regard to resources, including resources of knowledge and money – that is, bankers and so-called "science priests"; here also belongs private property (resulting, according to O.V. Grigoriev, from the privatization of the profession). Is it possible to create an elite acting transhistorically, not reborn, given that part of it is such a priesthood? It is important to clarify immediately that, both initially and in the limit, such a concentrator or a compressor, of resources in a warehouse acting as a public warehouse, is already a carrier of statehood, and for this case it does not matter whether this state operates on the basis of one-man management or inter-industry agreement "priests"- however that may be, there is either a monarch or an aristocracy (in the Aristotelian sense) as long as they act on behalf of the interests of the whole society (or "demos", speaking on behalf of himself).

Taking into account all these moments, as well as the fact that the neoeconomics O.V. Grigorieva, taken as an economic concept, speaks about economic systems with different levels of division of labor in them, as well as about trade and work

of the financial sector, we should carefully consider the assumption that , that the expression "a goal for invention is cunning" signifies not only everyday, but also quite a historical and technological and, at the same time, economic, regularity – just as, according to Grigoriev, not only worldly but also fundamental is important in the field of finance, the principle of "money to money" (and this, by the way, is quite compatible with the principles of modesty and self-restraint of the first businessmen-protestants). That is, resource (primarily food) deficit and unfavorable conditions of the external environment (primarily natural, but why not consider it social, for example, the weapons of Chinese and Japanese peasants who have become agricultural tools) are able in some way lead to fundamental discoveries from below. Such discoveries can appear as successful ad hoc solutions for the general situation of a common critical problem, and certainly will look good in the "theory of cultural circles." At the same time, once again, it should always be taken into account that these "people's" inventions are a property of moving, wandering, communities that compare and combine different resources found in different loci.

Such fundamental discoveries should be distinguished from the phenomenon of technological revolution – that is, when there is a surplus of a low-cost, but high-cost resource (cotton vs wool in Britain), so a machine is put in place of a person in order to reduce salary costs and, as a result – reduction of the final, consumer, price of the goods. Invented by the "goal" does not initially pursue any commercial goal, however, after the occupation of the agricultural territory by the nomads, the formation of the state and the formation of the nobility, the latter becomes capable of making very solvent demand for it (for example, other versions of Indian Indian bows were expensive – much more expensive than those exceptional means of conquest, that were with nomads). The surviving nomadic goal is not going to sell anything to anyone – on the contrary, it is going to either get the benefits of military force, or go to the service of the neighboring sovereign, as was the case during the ecosocial crisis in China in the Song era, when the emperor invited the nomadic Jurchens to establish order.

Nefedov, in the context of his "three in one" concept, says that firearms were a factor that, together with the weakening of the Horde, made a military revolution in Russia and was the point of the beginning of the imperial conquests. Meanwhile, within the framework of his use of the "military-revolutionary"

theory, I have not found a connection with the comparative problems of technological transition – such as the poor quality of the first Russian boozes for the relatively high quality of heavy armor-piercing Tatar arrows, or a similar example of the Spanish arquebus against the bows of the Inca empire, or even more interesting, albeit more general, example of replacing high-quality, alloy, bronze weapons at first with very low-quality iron during the transition to the Iron Age. In Nefedov's theory, I would like to see a link between the concept of military-technological revolutions, allowing to expand the people's oikumene and resource base, with the concept of resource or labor conditions in which such a revolution was possible, and at the same time, a link to economic conversation.

However, both the case of a grass-roots fundamental discovery, and the case of a capitalist technological revolution, have something in common:

- a local solution of a task that is generally valid for one's own production or economic group;
- the principle of minimizing costs both for the extraction of a resource (including the replacement of an expensive resource with cheap ones) and for its processing;
- both there and here there is a nomadic way of life, but in each case – with its own specifics.

As stated, the nomadic factor here will be key. In connection with it, it will be correct to refer to the considerations of R.B.Fuller on a similar topic – to his arguments in the book "Grunch of Giants" [9] about how the ship appears and is being perfected (by the way, Nefedov mentions the dracar as a fundamental discovery of "nomads" Of the Northern Desert), and how it can be related to the idea of a production conveyor:

*«A new kind of wealth creation has historically come with the invention and development of sailboats decisively and heavily inverted, ribbed and paneled, high-over-sea-holding, big-bellied and, in much later times armed with cannons ... When the ship's hull was finished and waterproof, transversely connected paths were lubricated with grease and the blocking soles were knocked out from under the ship. Gravity provided a quick glide of the ship toward the sea, maintaining its vertical balance long enough to submerge the deck.*

*After the launch, the ship was kept afloat gradually in a sequence of wooden, crane-equipped supply docks – inner decks and a superstructure dock; dock chain cover;*

*mast-installing dock; docking and sailing equipment; Dock, installing winch, cable and armament. Finally, the ship sailed far to various lands, where the above-mentioned masts, fabrics, ropes, etc. The original temporary equipment was successively replaced. (The best masts in the world from the Pacific coast of British Columbia, the best rope from Manila in the Philippines, the best cotton canvas for sails from Egypt, the best teak tree for decks from Thailand.) It took a full round-the-world voyage to combine "all the best in world "from all that is needed to create a" majestic "ship – the only one capable of circumnavigation.*

*Probably the first conveyor belt in history was invented on the Menam-Chao-Praia River in Bangkok. However, the earliest known militarily safe shipyard was found on the Greek island of Milos ... A few centuries later, this successively advanced-forward-adding shipbuilding model, which is as yet undoubtedly evident in the Venetian shipyard, became the prototype for all mass-producing industrial "driving lines".*

*The construction, arming and equipping of such vessels, and the production of materials from which to build them, as well as the production of food and other necessities for the provision and dressing of all those engaged in shipbuilding, required an effective influential military power capable of commanding full-time duties employment and skills of a large number of people involved in the process".*

In another book, "Operating Manual for Spaceship Earth", written twenty years before "Grunch of Giants", Fuller gives his view on the way in which sea nomads relate to other peoples and economic activities. Although he speaks predominantly about the trading value of a ship (an example of which is a non-logistic and trading tool in Grigoriev's), his replica about the upgrading of the vessel by the best means is remarkable, because of the transport function of this product-the displacement function, or the locus change. However, the very first movement function that creates the vessel itself is the line of its sequential equipment in the shipyard docks, where the labor of many people is divided according to the functions of these docks (in other words, in the production-management "sausage" system). That is, the technology here is a consequence of activities in the context of the movement of resources; in the case of a ship, the product of technology is a means of moving resources created for the solution of an applied problem, which is based on the task of survival. These views of Fuller, although he himself was not an economist, could be described as "technological nomadism".

"Naked" nomad, cunning on fudge, deceives the unmerciful nature to him, using her opportunities, gleaned in different places. The collector, however, and the

farmer are taken from the benevolent or from a domesticated nature. Therefore, they themselves, and the abundant resources consumed by them, become consumption resources of the nomad during the formation of xenocratic societies. And even if the labor of slaves is perceived in the agricultural society as a resource of "merciful nature", the technological nomad who comes to such a society perceives this resource, as well as its owner, the slaveholder, as a resource of its own, which can be profit; and this continues until the nomad becomes sedentary and becomes "pampered". These things are repeatedly found in the books of Nefedov, they are logical and difficult to argue with them; although, perhaps, other, otherwise theoretically armed professional historians will find weighty objections. But if one is arguing theoretically in this way, one of the most important moments in the direction of solving the task set at the very beginning of this material to manage the preservation of achievements and survival in resource and demographic crises will be the recognition that nomadic and sedentary life should be presented not simply as opposing types of economic structures, but as some macrospheres of the modes of existence of society (of course, for societies with a certain level of development), between which there are differential of states that quite rich in forms and aspects. These states, being the modes of the attitude of society towards the phenomenon of movement as such, also determine the possibilities of wealth and poverty, labor specialization (or universalization), logistics, money distribution and many other factors and factors of an economic nature.

Here it would probably be appropriate to quote the names of Wallerstein, Brydotti, Attali and other authors who talked about neo-nomadism and its various forms in relation to the realities of this and future days, but for the time being I remain within the framework of the chosen canvas of the narrative.

And one more thing that connects sedentary and nomadic people: both of them, sooner or later, somehow or other form their own warehouse – a resource base (resource center), from which much more "superstructure" happens: both state administration and religion, and financial activities.

If so, and if in the case of a warehouse the above factor of concentration or compression of resources takes place, then the question arises about the differences in the form and functioning of resource bases in both of them, as well

as the question of how much such a "storage base" in principle, can be mobile, concentrated in one locus ("metropolitan") or distributed.

### **Note 1. Three conclusions of Nefedov's book on the East**

*«...The first conclusion that can be drawn from the analysis of demographic cycles in a private-owned society is that the ecosocial crisis does create an etatist monarchy, but in most cases statism wins even before the crisis sets in as a result of the revival of the tradition or diffusion influence that took shape in antiquity».*

*«...our second conclusion is that in cycles beginning in the conditions of etatist monarchy, Compression, as a rule, causes the disintegration of this monarchy, and then development is directed along the usual path of a private-owned society».*

*«...there are two ways of evolution of the estate monarchy. In some cases, it decomposes and turns into a feudal monarchy, and then the demographic cycle develops in the same way as in a private-owned society, and the ecosocial crisis generates a new statism. In other cases, the estate monarchy is transformed directly into the etatist monarchy as a result of an ecosocial crisis or reforms aimed at restoring the etatist tradition».*

In general, if we generalize military inventions on the basis of the Nefed book on the East, then the following sequence of classes of technological periodization is obtained:

- Personal weapons – operational:
  - Onions (Hunnic, Mongolian)
  - Saber
  - Firearms (pischal, artillery)
- Protective equipment:
  - Shields
  - Archer's Shell
  - Shell for a horse
- Vehicles – tactical:
  - The horse is taming
  - The Chariot
  - Stirrup
  - Saddle with bows
- Combat system – tactical:
  - Phalanx

- Battleship
- Religion (Islam) – strategic, "idea as a weapon".

## **Note 2. Grigoriev's views on Malthusianism from Shanin's lectures**

7 lecture, 2 part.

On average resources, the population multiplies (Malthusian cycles) in two aspects: high-tempo and high-density; in Russia there are no cities that would be centers of the countryside (effective district – 10 km, not effective – 30-40 km), so in Russia all cities created: these are either trading cities or military outposts existing in support of the state power (after deduction of Ukraine, where the model "city + surrounding countryside" existed); this model is a condition for the emergence of capitalism.

8 lecture, 1 part.

Factors for the development of reproductive contours without a financial sector: demography, (natural) resources, transport and logistics system, division of labor (technology). The beginning of economic development is provided by a bundle of "demographic resources": it begins with highly efficient natural resources, which leads to a high level of consumption and demographic explosion, which in turn leads to consumption of less and less efficient natural resources (highly efficient resources are used ineffectively, children divide land, which is less), then comes the demographic crisis and famine (demographic cycles: Malthus, partly Riccardo).

9 lecture, 2 part.

The fourth model of the crisis (the oldest of all): "underconsumption" (Malthus, Sismondi, R.Lukseburg). A reproductive circuit with an equilibrium in it, a violation of it after the appearance of money and the subsequent appearance of the labor reserve, which creates the basis for transformation within the reproduction contours. Rather, in the current review, the task is not to explain the cause of the crisis, but to explain why there is at least some more or less sustainable development, rather than a permanent existence in a permanent crisis. Either the owners of effective resources, or the producers that ensure the effectiveness of effective contours, have the opportunity not to share with the

other participants of their circuit, but simply to grow rich by consuming labor reserves coming from other contours. But where do highly efficient producers sell their products? Previously, it was inside the effective circuit, and now how? (Say's Law: There are no problems with the sale of products, for at the same time a demand is created for the corresponding amount.) Malthus and Sismondi paid attention to this. Workers receive less than the artisans from which they turned out, although they produce as much or more, and consume exactly less. Who consumes the rest? Malthus singled out a class of pure consumers. It was easy for him to distinguish this class, because Himself belonged to him. According to him, this class consumes something that can not be consumed within the framework of current interactions. Sismondi did not like this class and believed that in order to fight the crisis, it is necessary to increase the cost of labor and conduct social policy. Also, under-consumption is compensated by government spending. In this regard, Krugman et al., Speaking of the problems of the disappearance of the middle class, probably do not even suspect that they cite Malthus, although they correctly understand the problem.

#### 10 lecture, part 2

Now the task is to combine all four concepts into one. This means that the economic cycle is a complex phenomenon, and it does not have a one-syllable explanation. It is necessary to begin with an underconsumption, since this concept completely falls in the earlier (by lecture) scheme of the relations of contours. To whom the products of effective circuits come true? High productivity, mainly, manifests itself in mass goods, and not in luxury goods. There is a part ("medium" contours) that do not participate in the production of labor (labor reserves), because they do not react to the monetary economy: can they even act as consumers if they do not have money? Moreover, they can consume foreign goods (an example with Pushkin's E. Onegin, who consumes overseas brushes and tweezers in exchange for salt). In fact, external expansion is necessary because of underconsumption, because the country's own independent (from the financial system) contour is compressed and disappears. It is these Malthusian "pure consumers" that are the stabilizing factor that explains why [the capitalist] economy can survive, and not be in a permanent crisis.

Rosa Luxemburg just said that the middle class can grow, and polarization will happen, but not immediately. In Volume 1 of Capital there is a question of productivity growth, and Luxemburg asked about where exactly this increment will go, and not actually the surplus value itself – in Marx there was no answer, and in Lenin the growth of the organic structure was nowhere accompanied by an increase in productivity, which, according to Luxemburg, can not be realized in any way. She wrote the book "Accumulation of Capital," where the schemes of Marx are thoroughly understood. Luxemburg concludes that there are products that can not be realized, and this is consistent with observations: the spread of goods around the world, the existence of Malthusian parasitic classes inside the capital markets and the middle class within consumer countries, and she predicted that at some point this process will stop , and then capitalism will be doomed to destruction.

### **Neoeconomics and Russia in October: what to do for the "neoeconomists"?**

The second decade of the XXI century shows that the situation in Russia and the world is developing according to the worst scenario. In the conditions of the closure of external markets, the population will be the source of money for the economy, which will entail an increase in the already growing social tension, which in its turn will ultimately open (if not already opened) the field of revolutionary possibilities (unless, of course, reduced to banal extremism). Which will inevitably take advantage of a part of the oligarchy aimed at removing the elites from the power of the current party, which, taking into account the above, will also strengthen the inter-elite conflict, in which the revolutionary process will be, according to a recently established tradition, a humanitarian and technological product. And, as such, will, in fact, constitute a target for the noted "specialized practices". At the same time, this conflict of elites, as well as the turmoil that is developing in them, can take advantage of the neoeconomic movement (as a movement of a consistent and gradual "realization of the process" through the formulation of a "correct historical story") as a force wedging in and intercepting the initiative in this the process that considers it in a constructive way, primarily with the goal of reforming the administrative institutions of society. Unlike the "Russian Revolution" of 1917, when the idea of political.

For this, the non-economic movement (or the movement, acting in the spirit of authentic neoeconomics) needs resource and economic support (including financial). What is becoming more and more clear lately is possible within the framework of the spread of cooperativeism, which is a response to the money deficit and the global crisis of the capitalist economic system. Mindful of the previous experience of such activities in Russia, as well as the managerial experience of other countries of the XX century (Spanish civil and Swiss administrative cooperativism, as well as North American administrative anti-cooperativity), it is proposed in the current conditions to act as a method of forming local areas for civil consolidation (mostly grassroots) oriented in first of all, on resource and economic support, rather than on political (politics goes sideways and slightly behind). These centers are expanded and strengthened at the expense of the components of the economic ecumene, establishing interaction with other such centers on a cooperative basis, without assuming at all in this expansion what is called expanded reproduction in the capitalist sense. The model for their formation in the Russian realities can be not only Spanish Mondragon (with reservations), but also examples of "boutique financial group", formed by graduates of one university nation – for example, the financial group ROEL, formed by immigrants from the Russian nuclear institute MEPI. Although, of course, on the other hand, the enlarged forms of civic co-operativism will certainly not be the most referential object due to the high degree of similarity to corporate forms, and therefore, the high degree of presence in them of emergency activity forms. In addition, within the framework of these systems, it is intended to stake on the social type not of a career manager, but of a creative designer, an extra-career inventor of regular social processes. For me, the system of a network of small groups with a high degree of solidarity in each of them is still tempting. An example is the network system of partnerships for family businesses (although it is clear that this form of social organization still needs to be worked out and rebuilt).

That is, it is proposed to act by the method of involving in the system an increasing number of unemployed and the remaining "overboard" representatives of the "middle class" as a group of "white-collar workers", and "blue" – all those who have high readiness for employment and experienced a repression from the usual comfort zone. And also – representatives of the shadow

sector, displaced there, because of vital necessity, imperfections of legislative and economic regulation, poorly protected singly, among which there are also many middle class ones. The mechanism for protecting cooperative centers is broad mass support because of the obvious effectiveness of the decision. The general principle of the formation of such cooperative centers can be taken from the history of Mondragon – for sure it will be common for all countries – relatively speaking, this is the principle of "three sites": educational + production-repair + cash-storage. But this is only one of the options.

The dissemination of non-economic ideas and the involvement of supporters is possible through a transparent representation of the masses (alphabetical) in their own set in the form of a small compendium with an obvious comparison with similar ideas reinforced in economic orthodoxy. "ABC" provokes the question "why so?" And refers to an explanatory narrative.

<b><i>Neoeconomics</i></b>	<b><i>"Economic Orthodoxy"</i></b>
<i>Main subject field</i>	
<i>Interaction of economies with different levels of RT.</i>	<i>System of national economy.</i>
<i>The ideal condition for economic development</i>	
<i>Imbalance, the difference of economic potentials.</i>	<i>Balance, balance, proportion, "pre-established harmony."</i>
<i>Main categories of economic development</i>	
<i>The division of labor, money (capital – accounting fiction).</i>	<i>Capital, resource.</i>
<i>Source of the division of labor</i>	
<i>The market problems of management.</i>	<i>Market relations.</i>
<i>The hypothesis of the origin of money and the monetary system</i>	
<i>State distribution (money – a tool of state administration), later – multiplication of money in the system</i>	<i>Convenience in the processes of market exchange, complicated in the historical process.</i>

<i>of partial redundancy of the financial sector.</i>	
<i>Source of NTP</i>	
<i>The financial system (profitably oriented actors), investing in cheap raw materials and expensive processing raw materials under a steady and high demand for the sum of final products.</i>	<i>Rational entrepreneurs who see a successful market opportunity for successful HT solutions.</i>
<i>A glance at the history of economic science</i>	
<i>Much of this history is the path of degradation of the initially more holistic and integrated view of social processes that began as a result of the deepening of the division of scientific labor in the system of social, humanitarian and even partly natural sciences.<sup>11</sup></i>	<i>Much of this story is the path of progressive development and improvement of the knowledge system.</i>

And so on.

Of course, all this is a general outline and should be clarified, but this general understanding of the direction of the movement is, in my opinion, clear and correct for making decisions about the action in such a crisis situation as observed. And, of course, this sketch of actions is just tactical, designed for the nearest civilian self-organization, but not for strategy. That is why the example of the Spanish Mondragon or the Russian "semi-academic" ROEL-groups "is not regarded as something absolute, in the sense of an ideal example. We are talking about structures that represent visual forms and give rise to thinking about the productivity of similarities. As for the strategy, then, as already mentioned, this is a matter of new settlements. However, if there is still a tribute to avant-garde artists that have something productive in the "dispute about socialist settlement,"

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<sup>11</sup> That allows you to interpret O. Grigoriev's position in a certain sense as platonic. My position on a number of issues, as far as can be judged from the whole, is rather Aristotelian.

this strategy must invariably be linked to the third option within the framework of the thesis "neither the city nor the village" (which, by the way, in a sense there is a thesis "neither nomad nor sedentary"), and assume the question of the socio-economic mechanism of working with the difference in resource potentials in the system of this "third", as a key management mechanism. Whether this mechanism will be financial or not, and whether it can in principle be different is a separate issue; it should be put, and in the search for an answer to it, you need to try alternative options. Of course, all this is a task for centuries, but it seems that it will have to be solved, and it is within the framework of the existing construct (if there is a fundamentally different name) that was once theoretically developed at the historical point of the post-imperial crossroads, but not approved one of the "regular contingencies," which disrupted its implementation. But the world began to be built according to old patterns and patterns. Meanwhile, solving problems of this level with the use of old patterns, there is, in the words of the English historian Eric Hobsbaum, a big risk in the end to be in the void.

One more, the most Russian problem, revolves around the logic "no empire or nation", designated somehow by Grigoriev. Actually, the question of the state is the question of governance. The kinds of state that we know and which serious researchers can tell us from among those mentioned here are hierarchical organizations of society, except in rare cases when competition is added to the state administration.<sup>12</sup> It is important that when we ask ourselves about the non-hierarchical system of social structure, especially within the framework of Grigoriev's criticism of the illusion of a "rational hierarchy", we inevitably come to regular or project activities (and, accordingly, management), where the latter is creative. But if the social structure, for example, is basically project-based, not state-based, how else, if not by a set of interacting communities, synergistically distributed across its territory, to represent its structure? Another question is the size of these communities, but this is another matter; the main thing here is that they are distributed planar relative to each other, and their interaction is described by a polyvalent, dialog, model structure, rather than a universal one,

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<sup>12</sup> How cooperative are today's US and Switzerland? Cooperativeness of the first (or rather, "anticooperative competitiveness", or "cooperative nature in a negative form") and anti-imperial cohesion of the peasant communes is, in a sense, present at the level of constitutions and state administration, but does not dominate the level of the economy of the broad masses: there are firms dominated (in particular, global corporations). In Spain – on the contrary: there already exists a large co-operative corporation that looks outwardly in its corporate nature as a firm among firms, but the state structure of this country is not cooperative; generally southern Spanish society is very polar: its pathos stretches from left radical to right-wing radical forms.

built just for explication of the hierarchies that rest on the common vertex. By the way, it should be said that semantic categories in logic with a "classical" model structure are hierarchically structured. But is it possible to call such a system, hierarchically arranged, living in cities, villages, sedentary, nomadic, empires, or nations, in a special way distributed over its territory (striated by a triangular grid of regular roads) as a state? A device that lives by dialogue and a mutual question, but not an order. A society that is a system of non-hierarchically interacting social clusters, within itself (ideally) recursively reproducing the same principle. And one more question that immediately arises in the system of my narratives: was not there such a device on the ground before, and whether its echo is the specific settlements of ancient Europe?

And such a society should learn to broadcast its value through the cataclysms of History? If so, how and why? If we talk about how, then mutually display each other's valuable (leaving a trail in each other), for it is precisely that the request of communities about the valuable, the ability to offer valuable, and valuable forms of interaction are significant objects of storage and broadcast. And if we talk about why, then is it not because such a society will reflect a natural, healthy, organizational form, the embodiment of something universal in the human without looking for some imaginary balance that inexplicably realizes itself in a striving for heat death social monad? Because a complex system consisting of complex elements, a colloidal system representing human society, most self-organizing into clusters, and the degree of its flexibility and adaptability depends on how much it is capable of changes in the scale, size and structure of clusters without prejudice to themselves, without prejudice to the condition and reproduction of its constituent elements.

Such a cluster organization of humanity can, for various reasons, acquire the form of empires, polices, free cities or national states with different degree and type of conflict / cooperativeness among themselves, but an important content of the broadcast will be the understanding that the center of social groups should become not a figure of one of its members, around which a hierarchical system is built with steps of increasingly high awareness and divinity, but the matter of matching external demands with the calculation. The fact that both those who are in charge of a social group or an individual person, in turn, will respond to her or his request, which means they will be able to respond (with intra-system

requests, interaction is established, of course, between its elements and subgroups). And this, systemic, dry logical circumstance, completely excludes any motive for robbing another and acting on the principle of "die you today, and I'm tomorrow" (perhaps, according to the principle of "money to money" – a well-known economic law). This is the case, the essence of which is the direction, and there is a sense – constructed, reflexed and realized in addition to the stratified idol, the formation of which is attributed to the value of each member of the hierarchical society (actually, the replacement of the goal of action by a person or the closure of a general action on one person trivially leads to the erosion of action, and to the mystification of an individual). In a sense, the hierarchy in social groups is the semantic inversion of a person, when the signifier and the signified change places.

Thus, the main object of translation is represented by valuable ways of rational human action. This will not exclude cataclysms; but since society is now viewed not as a mountain peak exposed to shocks (on which everyone plays "king of the mountain") but as a fabric in which breaks are possible, the issue of translation will be a question of the memory of the strength of communicative connections, the value of such memory allowing to recreate something more than a fragment that remembers the whole. And the issue of the storage format for this memory will always be solved in the conditions of the lifestyle format, of which the living environment is a part.

### **To the question of the substantively logical foundations of state constitutions as basic social instructions**

The issue was posed in the framework of the seminar on public administration. An introductory prerequisite for further reasoning is that, according to non-economic considerations, economic problems can no longer solve the problems of this world, whereas the greater part of the economically-held world is politically constituted constitutionally, that is, according to monarchical constitutions, with the exception of the US and Switzerland, constitutional arrangement. In this sense, regardless of the analysis of concrete texts of constitutions of different countries, which are, in the neoconscious sense of scientific nature, the subject-technological collection of the texts of legal science that are the semantic determinants of the law of the normative type, it is necessary to consider the essence of the structure of logical forms and expression matrices of such works.

This is all the more important for solving the problem of writing a new constitution, if it is something fundamentally new in content, able to create a new system of public administration that works in a new way (according to neo-economics, management of this kind corresponds to the concept of a "project state" and "official-entrepreneur").

However, before considering all these things further, it is worth recalling one of the speeches of the famous Russian thinker of the Islamic sense, G. Jemal, where he spoke on the account of today's constitutionalism of the European type very clearly. He spoke in the sense that the constitutions, as the foundations of the legal systems of the countries of Europe, are the precepts of the life of society created "by rebellious human khotenyu", and therefore the societies built on their basis are fragile and unstable, whereas the basis of the legal systems of the countries of the Islamic World is a strong Sharia, based on the Quranic commandments of "God's will", according to which societies have lived steadily for many centuries. Of course, Jemal did not think at the same time about the states of Europe as national states existing in confined spaces with high differentiation of natural and climatic conditions, and also about the states of the Islamic World as territorial empires existing in relatively large spaces with relatively low differentiation of natural and climatic conditions. And, of course, within the framework of Jemal's own reasoning, such logic seems to be iron. However, that is the very logic of the commandments?

Anyway, any today's constitution of the state is a system of basic legal postulates that determine the key values and norms of relations in society, formed collectively in the immanent members of this society social environment (rather than transcendently introduced into society by the "black box" instance). So, the content-logical basis of the constitution is the so-called "value basis," structurally identical to such an earlier form of rationing social relations as commandments. The deontological nature of the value bases I clarify in the next section, presenting a compilation of such bases and examining the performative nature of the expressions used in them. It also mentions that the imperative or ethical requirement may be accompanied by justification. And here it is important to note that such a substantiation of the postulate can be a means of their internal binding into a single system, a means of forming internal logic.

The reason for drawing my attention to this topic was the very frequent reference to the expressions "value basis" and "value basis" by numerous visitors of the resource worldcrisis.ru (and not only by them, by the way), with a complete lack of attempts to clarify the meaning of these words. In any case, the constitution is presented as a more or less complexly organized value basis, and the degree of complexity of its arrangement determines its general civil availability, and the ability to be a law of direct action unequivocal in wording and not requiring a qualified interpretation. In connection with what is said above, two things are important:

- the coherence of the provisions of the state constitution should be internal, and in no case should it be a codifying generalization of already existing laws and norms, and therefore, an exit to these norms (since the task of creating a constitution in a non-economic sense is law-making, or the formation of new grounds for lower legal routines, not burdened with the bases of current practices);
- the internal consistency of the constitution should be considered as a logical consistency of the values that form its values, which also should be avoided by conflicts of interpretation.

And one more important point: the usual content of almost all constitutions relates to the state and its relation to a person who, in the explicit or implicit "premise of the spirit" of the fundamental law, is the representative of the so-called "civil society", regarded as separate from the economic, actually state-political, and technological, realities. However, since neoeconomics, in the person of its author O.V. Grigoriev, increasingly demonstrates the search for solutions to the problems of the modern world outside the framework of economic discourse, it is not that in the area of state administration, but in a much wider area of urban policy, the underlying value of the new Constitution is the value basis should also encompass the urban level of consideration of the life of society, its total presence in the natural and climatic environment and, possibly, on a planetary scale. In turn, this means that the created constitution should be constituted by the state only as an integrated and integrated urban system. And, again, taking into account the above mentioned: it is this constitution that should be a law of direct action, generally accessible to the general educated population and not requiring a qualified interpretation.

Considering the aspect of project management as due to the mapping in the new state constitution, I take it beyond the scope of this note, since it rather refers not to form and structure, but to the substantive part – on the one hand, and perhaps to the order of formation of the most "basic law "on the other. Meanwhile, in my opinion, only taking into account all that has been said, one can build a constitution as the voice of the people, to which the definition is "the voice of God".

### **Value bases**

I found the name "value bases" to be the most successful, since the lists of the more or less related postulates that could equally well be called "the postulates of adherence" are distinguished by their finiteness, relatively small number and certainty. In their traditional form they are also known as precepts, covenants or commandments. It is worth noting that the naturally scientifically worded word "axiom" also etymologically means "the initial thesis or postulate accepted as valuable." The identification of these postulates-bases, expressed in an explicit or implicit form, gives a lot for the rational comprehension of ideas and concepts that are the subject of the study of the history of thought. These bases also have a very important virtual dimension, since they represent a system of the grain from which whole directions in the history of thought flow, encompassing significant groups of authors, disseminating these thoughts in the form of philosophical and ideological trends, with greater or lesser force of conviction and efficiency, ideas, ideologies, which sometimes take possession of the masses, turning further into the driving forces of human history.

Initially, the value bases are explicitly or implicitly formed by individual authors, more or less influencing the formation of such groups and directions, which have different possibilities in translating their more or less ready-to-perceive, more or less numerous, audience, becoming authors-bearers, developers, or, often, gravediggers of these ideas. However, the bases themselves, crystallized in a more or less pure form among the individual authors, are, undoubtedly, a consequence of the conditions of their life, a certain social order, interests in the society, conflicts, already existing values and attitudes towards them, as well as natural and climatic conditions, among which an inquisitive, observant or something touched by a living mind finds common and foreseeable. Such value lists-bases often consist of constructive and performative judgments, sometimes

from constructs "performative-konstativ", where the second is the explanation for the first ("Beat the scoundrel every time!" Remember, if someone takes your rights, you have the right to destroy him! "), or from the constitutive constructs" present-future "(" Blessed are the merciful, for they will be pardoned "). However, this is not necessary, and bases can consist solely of constitutions, so exclusively from performatives, and also represent a set of them, not related to the relation of interpretation. Explaining empirical examples to them can be given not by primary sources, but by successors, but this will be a different, less formal, type of interpretation relationship, rather than the noted constructs that more rigorously define the meaning of the basis.

An important property of value bases is their integrity and completeness. Of particular importance for bases is their emotional acuity, especially the sharp rejection of certain groups of values by those who adhere to other values. Among the proposed copies of what we are talking about, there are principles completely oriented in the Empedoclean sense to "love," "cultural connotation," and completely to "enmity," "cultural disjunction," but there are also those that combine and both, for example (the Rothschild Code for Children).

At the same time, whether they are culturologically oriented "conjunctively" or "disjunctively," the value bases each time also set the relation "one's own", which divides the ethical universe into those who follow, and those who do not follow this basis. The severity of the conflict on this basis depends on how serious is the existential acceptance of postulated values, that is, how much the basis has adaptive-survival significance. This is not such a seemingly trivial thing, if you take the example of the "Commandments of the student" ("Honor your teachers ... because the session is just around the corner"). At first glance, comic commandments, composed in biblical style, demonstrate how important the importance of following them depends: a) from an experienced or contemplative understanding of the conditions for their appearance, and b) the relevance for anyone to remain among the students.

The understanding of the degree of awareness of the value bases, dogmaticity and completeness of it, as well as their integral presence in the individual and in the mass consciousness, allow, by relating values with observable interests vectors, to determine the possibilities of behavioral triggers and barriers (conflicts

of interests and values), and to form behavioral expectations , which is very important for the work of cultural industries and mastering ways to counteract them. That is why I began to collect lists of value bases as a special kind of collections of sources of a certain, basic level, and replenish it as new interesting instances are discovered. Some of them are widely known, others are less. Some are imputed to all mankind, others to a separate group, while being unacceptable to the rest of humanity, because they are directed against it. At the time of writing, among the selected copies of the bases are the following:

- Ten Old Testament Commandments
- Christian commandments
- The Ten Commandments of the Nazi Joseph Goebbels
- The Rothschild Code for Children
- Principles of Buckminster Fuller
- Principles of Warren Buffett
- Commandments of the student
- The moral code of the builder of communism
- Symbol of the Christian Faith
- 10 Schlahter Laws
- 15 points for the summer for schoolchildren from the teacher Cesare Kat

From the value bases it will be logical to proceed to consider what are the features of the algebraic control – in particular, and the management of viable systems – in general. By the way, it will be noted that value bases are a means of modeling the conditions of the viability of a social system.

## **Situational centers and non-centered control systems in the historical context of the development of cybernetics of "viable systems"<sup>13</sup>**

### **A few words about the relationship between project and forecast activities**

Next, we will talk about alienated control systems, which are a subset of the subject-technological set, more commonly referred to as the "infocom" (and not just what is the actual alignment of activity processes as systemic states of social matter), then speech is inevitably about settler environments, or urban environment – the same as in the case of the actual landscape and architectural conditions and the conditions of places of public presence, within which these most active processes and systems of conditions find themselves. The fact that infocom is a specific part of urban media (which, by the way, is almost completely ignored by specialists in mass media and new media), I drew attention when I was closely involved in various thematic areas of wireless and mobile communications, including the topic of the influence of the latter on health, ecology and lifestyle. In this regard, it proves to be important the history of the appearance of an infokom conceived in this capacity, since it obviously represents an alienation of the social transpersonal instance into the sphere of an organized extra-human environment, oriented both at the service provision of the society and at maximizing its own autonomy. This duality is also linked with the fact that such a duplication occurs both model-wise and real, both of the extra-human world and the society, closing them up against each other and becoming a separate world. It is somewhat similar to Popper's "third world", but this is not entirely true; it would not be entirely correct to call it the "third infrastructure", because, in addition to the infrastructure component itself, the infocom encompasses all three Popper worlds, being a part of all three and not being reduced to either of them. This may cause some difficulties for a holistic understanding (quite solvable, in my opinion), but here, first of all, it concerns how this alienated social "crutch" is in principle capable of solving the problems of the human community, and not only doing it privately or a localized method. It is this question that, in my opinion, contains the real problem of its holistic understanding, for this I address its history. Therefore, the fact that today there is a management principle that is embodied in the infocom, focused on the

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<sup>13</sup> More complete text of this section with illustrations can be found at the following address: [http://www.dalekseev.ru/sites/default/files/attachments/articles/sc\\_i\\_sistemy\\_upravleniya\\_0.pdf](http://www.dalekseev.ru/sites/default/files/attachments/articles/sc_i_sistemy_upravleniya_0.pdf), for 10.2015.

identification and prevention of risks, is interesting to consider as to what is the overcoming of chaotic management itself in risky conditions in the direction of regular and well-established processes. For, indeed, it is strange, when many seek to prevent risks and chaotic in the future (that is, somehow analyzed, chaotic solutions), acquiring cunning tools, but having chaos as the initial state of management. In such circumstances, the only orderly means is inevitably the very organization of infocom funds, in the "virtual reality" of which everyone starts to run massively, unable to comprehend the true administrative purpose of this tool.

It is worth noting an important point concerning the management of the social system based on certain "management principles" – on the one hand, and on the basis of certain "technological solutions" (which, in fact, "infocom" and its components are), on the other. The consideration of the topic of "situational centers", as well as related infrastructure and support procedures, was prior to my acquaintance with the non-economic concept of management by type of activity: emergency-pilot (ADP), project and routine, and therefore some things may seem to be in contravention of it (for example, a note about the difference between the concepts of "control room" and, in fact, the "situation center" or "control center"). But this is only at first glance. In fact, I already had close understanding of neoeconomics, and is, within the framework of the theme of the "situational center" (which, again, it would be best called "the control center", in order to distance away from the AOD) in the space of the concept of "traffic light" degrees of threats ". At the same time, being already familiar with the basis of the activity approach of neoeconomics to management, I believe that it is in this space that certain innovations are possible that are related to the solution of the neoeconomic problem of the "design-creative" transition from anally-experienced activity to a routine one. Moreover, in the same sense, the "traffic light", as the conceptual component of the control system "from the center" coming from S. Beer, in the neoeconomic sense is the reverse direction of the work "from routine to AOD", rather than the actual design ("from AOD – to routine"). This is a very important difference in the direction of managerial activity, which has been little considered by neoeconomics, and requires clarification in the sense of the situation when it is required to "improve the routine", which is either a requirement to adapt to changed external conditions, or the demand of the Goldrath "bottlenecks" arising within the framework of the existing routine

procedures (in fact, the control of bottlenecks in the regularly operating firm, as I suspect, can not be managed in any other way, ontseptualnyh viable system control components). Since it is here that the significance of forecasting activity as such is revealed, which in a certain sense is opposite and, at the same time, is complementary to the project, and hence – creative in the sense of Grigoriev. Although, in my opinion, the forecast activity is a project, or creative, activity in the sense of Papanek-Koestler, and is related to the assessment of the possibility of a collision of a heterogeneous entity. The prognostic activity that is opposite in stages and complementary to Grigoriev's management principle is not in itself, but being included in the Bia principle "from regularity to a possible or anticipated AOD", within which, in fact, the forecast component of the management system gets its meaning and, in fact, , the basis for the regular identification and debugging of the "bottlenecks" of Goldrath (arising, for the most well-established internal system, because of exogenous factors). Whereas Grigoriev's, neoeconomic, project management is implemented according to the principle "from the actual AOD – to regularity through the moment of making a decision"; This point in neoeconomics is called "point Y", and the whole process is a kind of schematic "anti-bifurcation", the exclusion of options for response and perception (that is, the restriction of a set of active "control points" in the Beerovian sense, socially and historically, Grigoriev sent a reference to Weber's "organized man"). At the same time, the question of the criteria for choosing the moment of making a decision within the framework of the current non-economic narratives hangs in the air on this account, and all grounds are referred to the "AOD matrix" – on the one hand, to the fact that there is accumulated and somehow organized experience, and on the other hand, a frequent subject of confusion, for work within the framework of such a matrix, especially collegially complex and often very complex (composed of many "experiences") is mistakenly given for procedural action. As for the forecast, this category in the initial non-economic narrative about AOD, project activity and routine is not directly present – in any case, the forecast here does not play a key role; and can not play, unlike the Beer's case, because the project-creative management, which is, above all, not just social management, but the management of the firm, and is designed for demand, and not to achieve or avoid to some extent the expected the future for a system regarded as a self-worth (which was all Chilean society for the Cybersyn

project, regardless of the interests and modes of action of individual economic players).

In my opinion, the combination of concepts about the management of the system, starting from its opposite states as initial ones, and closer attention to the forecast as a management category, should help solve the problem of "decision making". First of all, such a combination should recognize the need for regular processes to be built only if, at some point in time, the matrix of the AOD (collective or best in one of the representatives of the collective – for example, the head or the most competent employee) the ability to form forecasts on the subject of the sphere of management corresponding to this matrix – without regard to the methodology of forecasting itself (be it related to scenarios scrutiny, trend studies, or something else). Since it is precisely when a regular procedure ("routine" in the working terminology of neoeconomics) that is designed or "planned for the future" is correlated with an analytical view of the future, or it is possible to talk about the viability of such a regularly operating system. Another question – when the regularity is absolutely not predictable, that is, when it is impossible or incommensurate in costs to obtain information of a predictive nature.

Then there is an "extra-forecast" project action in its pure form – any decisive action (in the physicalist terminology – any, the most powerful, fluctuation) builds a primary regularity in the maximally malleable chaos (in the absolute, ultimate case, this is the concept of the "great explosion in absolute emptiness "). And then, in fact, the logic of the concept of the "life impulse" (or some "Nietzscheanism", to which, by the way, Grigoriev is inclined, in his own words) works, for cases when it is not taken into account or accepted for reproduction by acceptors -mimetic model of behavior associated with the search for role models in the conditions of a deficit of information-which, for example, takes place within the framework of the spread of confidence of the social mass to the monetary unit in Orleans and Aglietta, or about what is in the book of D.A. Gubanov, D.A. Novikova and A.G. Chhartishvili "Social networks: Information model of influence, control and confrontation" [10] on social reputation; the following passage from this book is remarkable:

*«Reputation can be considered, firstly, as the expected norm (by other agents) of the agent's activity – what kind of behavior the others expect of him. Secondly, as the "weight" of the agent's opinion, determined by the previous*

*justification of his judgments and / or the effectiveness of his activities. Reputation is justified and, as a rule, increases if the choice of the agent (his judgment of action, etc.) coincides with what the others expect of him and / or with what others subsequently consider to be the norm (for example, effective activity)».*

(3.4. «Information management and reputation of members of the network»)

That is, it is either about the justification of judgments, the basis for which, in the case of judgments about the future, is a forecast, or the activity itself, the effectiveness of which can be conditioned both by knowledge (including forecasting) and by the energy of the agent ("the ability to push through actions and decisions" or "To provide the most powerful impulse" in the environment, the system device of which is perceived from the standpoint of this impulse as chaotic).

With the predictions in the management system in the sense of Beer, the parametric functional of the future management component and all that relates to the system dynamics are connected, which is discussed further about the Cybersyn project. Prognostic activity, in turn, provides a project sense, increasing the viability of results, being oriented to the assessment and choice of preferences (ranks of relevance), whereas the project makes predictive sense through the actualization of being, in which the expected, probable and potentially possible become true data and updated . In this approach, the actual assessment of the future prospects of the state of the controlled system is due precisely to the procedural state as the starting position. And, by the way, the concept of management of Beer is based on regular (procedural, routineized) processes, namely concerning which risks are assessed.

All these circumstances noted above seem to me at the moment the main bottleneck of the activity approach of neoconomics to project management, but it is completely solvable and workable with the correctness of the emphasis of consideration and wording.

Also, in several of my materials, I mentioned that cybernetics Stafford Beer some ideas connected with the inventor and philosopher Buckminster Fuller, and it caused questions among those with whom I discussed the possibility of using the

ideas of Beer in the era of Facebook and iPhone. The following explains this relationship to the greatest extent. Those things that lie in the history of situational centers and situational-control systems are really capable of changing the world. The only question is who and how will show the will to do it.

## **The notion of the Situation Center (SC), widespread at the beginning of the 21st century**

### **Concept, definition and tasks of SC**

On the one hand, the modern idea of what is SC is associated with stable invariants of ideas about them. On the other hand, there are a significant number of grounds for classifying them according to their connectedness, tasks, levels and nature of functioning. At the same time, in open sources there is no connection between existing SCs and other computer management systems.

The most capacious generalization of the entire amount of examples of what one can learn about SC is the definition of "Interrussoft" [11]:

*«The Situation Center is a set of specially organized workplaces for the personal and collective analytical work of a group of managers»<sup>14</sup>.*

On a functional basis, the list of SC tasks is indicated in the same source:

*"The main task of the Situation Center is to support the adoption of strategic decisions based on visualization and in-depth analytical processing of operational information. The effectiveness of SC is expressed in that it allows you to connect the reserves of figurative, associative thinking to active decision-making. Representation of the situation in the form of images "compresses" the information, providing a generalized perception of the events"<sup>15</sup>.*

On the subject basis of the SC problem are indicated in the definition given by "Computer-Inform" [12]:

*«The main purpose of the SC is to ensure effective consolidation, purposeful use and development of the organizational capabilities of the society on the basis of a wide application of the latest information and analytical methods and technologies for both the operational management of large*

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<sup>14</sup> [http://ta.interrussoft.com/s\\_centre.html](http://ta.interrussoft.com/s_centre.html), for 10.2015.

<sup>15</sup> [http://ta.interrussoft.com/s\\_centre.html](http://ta.interrussoft.com/s_centre.html), for 10.2015.

*geographical areas and for their organizational construction and development»<sup>16</sup>.*

### **Structure of the SC**

By definition, "Computer-Inform", the situation analysis center consists of four main subsystems:

- general-purpose hardware and software;
- subsystems of methodical support;
- a set of special security equipment;
- a combined database and knowledge subsystem.

### **Expert specifications of SC**

According to geos-inform.com, the intellectual core of the situational-analytical center is a set of interrelated models, these are:

- dynamic model of socio-technical or natural adaptive education;
- indicator models of the criterial space with which all other models of the situational center interact through their input and output information flows;
- models for identifying problem situations, early warning and developing measures for their parrying and eliminating negative consequences;
- information models of management objects on the basis of interactive knowledge bases, which are presented in a supervisory form;
- artificial intelligence system to support the adoption of long-term and operational decisions of various levels on the basis of multilateral strategic computer information;
- a model of flexible socio-economic monitoring, including a model for managing the mental and physical activity of the population.

It can be seen that the "Artificial Intelligence System" in this classifier is knocked out of the others, as related to the software architecture rather than to the tools of work. In turn, all marked models can be considered as private products of the work of some single modeling tool, which is a variation in the group of expert tools.

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<sup>16</sup> [http://old.ci.ru/inform21\\_04/p\\_22.htm](http://old.ci.ru/inform21_04/p_22.htm), for 10.2015.

## **Technical equipment of SC**

According to Interrussoft (see the link above), a technological base is needed to create a situational center, which provides:

- comparability of information resources,
- accumulation of received data,
- tools for integrating various components.

This is the main feature of such systems, the creation of which is based on the principles of system integration of existing and developed solutions into a single software and hardware complex using modern means of receiving, processing and presenting information.

This means that the expert systems of the SC are targeted, for which other infrastructure (videoconferencing, collective input-output systems) is providing. Thus, we have a communication component – on the one hand, and an expert one – on the other.

Hardware SC most often includes:

1. systems of multi-screen display of data of various types (electronic maps, video images, graphics and diagrams, text documentation in electronic form), intended for collective use;
2. videoconferencing facilities;
3. electronic means of prompt input of graphic data;
4. an interactive display designed for applying in the discussion of the situations in question markings on the touch screen with regular graphics;
5. Integrated control systems, which are necessary for technologically complex complexes, where for correct management of the system state, simultaneous switching of multiple devices is required.

It can be seen that the "integrated control systems" of the SC assume a different system level than the input-output information tools implemented at the multi-user level within the single infocommunication platform. As the name of such a subsystem, the term "metadispatcher" can be used, meaning a system that switches information flows depending on current tasks. Of course, such a component can be implemented on the "server" part of the SC, while all the others – on the "interface" (or ergatic). Such a component can be implemented

both on the basis of the "artificial intelligence system" (see above), which presupposes self-education, and on other grounds.

### **Types of SC**

Another basis for the classification of SC is their level. In general, SC classifications by scale can be reduced to three levels:

- strategic SCs: the possibility of forecasting long-term trends – the level of the state or a large corporation;
- operational SC: management of a complex facility in real time – the level of industrial enterprise;
- personal SC: receipt of rapid assessments from the expert and his notification during the current work – the level of the workstation.

### **SC parameters**

In various sources, you can find the following parameters of the SC, the list of which is probably not complete:

- the parameters of the Internet connection, because SC today is an information system that exchanges data over the Internet protocol;
- number of control points;
- number of types of control points (household or industrial enterprise – in the case of Cybersyn);
- number of users;
- number of advisory rooms: in this case, both the internal structure of one SC is taken, and the distributed SC system – however, due to historical reasons, the notion of "network of situational centers" is not a running one<sup>17</sup>;
- type of monitoring object: SC can monitor the dynamics of different data – input parameters or state / phase of the monitored system (the priority of the latter is according to S. Beer).

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<sup>17</sup> According to Informsvyaz for 2012, there is a RCCC in Russia: «The concept and complex of technical solutions developed and implemented by the specialists of Informsvyaz [13] – a system of distributed situational (dispatching) centers allows the heads of departments, administrations, large commercial enterprises to establish effective management and continuous exchange of information with all structural divisions in carrying out various production activities, solving current tasks and eliminating emergencies, regardless of their location». ([http://www.informsviaz.ru/inform\\_tech/629.html](http://www.informsviaz.ru/inform_tech/629.html), for 12.2012.) The network from "Informsvyaz" is based on fixed and mobile POS centers, and the mobile platform is represented by the solution of "mobile housing", i.e. is offline, not suggesting a "cloud" or "virtualization".

## Effectiveness of modern SCs

It should be noted that the presence of a significant number of situational centers (in the world there are about 300, but a significant part of them are only by name, in fact, these are "simple dispatch"<sup>18</sup>) does not guarantee the prompt resolution of the problems facing their owners. Thus, the US president is provided with four SCs, and the SC is in other departments of this country that "not very" helps to cope with the problems of the American economy. In Russia there are well-equipped SCs under the president, government, MES<sup>19</sup>, Rosatom and other agencies, but at the moment the quality of public administration, including the economy, leaves much to be desired. Meanwhile, historically the first strategic SC was introduced precisely as a means of managing the economy, and many authors today SC are considered as the organizational and technological platform of the so-called "Crisis centers", and formed, and solving problems mainly ad hoc, or in the mode of emergency-pilot activity. In countries with economies demonstrating relative resilience in times of crisis since 2007 (Brazil, Germany), there are also worthwhile.

### SC GMLZ in Germany

The most equipped SC in Germany (and also one of the best and most equipped in the world) today is the "General Information and Situational Center of the Federal Center and Lands" (Gemeinsame Melde- und Lagezentrum von Bund und Ländern – GMLZ), which was based on the results of intensive political discussion after the attacks of 11.09.2011 and floods in the summer of 2002<sup>20</sup>.

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<sup>18</sup> The preliminary difference between the SC and the control room is that the functions of the control room are related to the solution of typical problems (pipeline breakthrough), while the SC is designed to deal with abnormal, non-standard, crisis problem situations and uncertainty situations predominantly (diversion in the pipeline), and requires a different methodological support, although in the normal mode it can perform the functions of the control room. Meanwhile, even on the site of the Cybersyn project (see below), the room is called a "control room", which literally translates as "dispatching". In this sense it turns out that it is this visible part of the situational center in the mass consciousness that is mistakenly associated with the SC itself, whereas its essence is precisely the operational construction of models with estimated values of the states of the controlled object of observation (objectified as the control points are multiplied and differentiated) the reaction to which must be, first, human (for the person here is the target purchaser of the system's benefits), and secondly, the collegial (synergistic), for the computer model, as well as one person, are most exposed to error.

<sup>19</sup> In Russia, apparently, it was the MC of the Ministry of Emergency Situations that was almost the first strategic center that developed from the headquarters for managing the consequences of the Chernobyl disaster in 1986.

<sup>20</sup> [http://www.bbk.bund.de/DE/AufgabenundAusstattung/Krisenmanagement/GMLZ/GMLZ\\_einstieg.html](http://www.bbk.bund.de/DE/AufgabenundAusstattung/Krisenmanagement/GMLZ/GMLZ_einstieg.html), for 10.2015.

## **GMLZ Departments**

- management of crisis situations, crisis management;
- prevention and preparation of accidents, infrastructure for crisis situations;
- research, development and technology, public health;
- Academy of Emergency Management and Planning;
- archive department (film library, etc.).

GMLZ analogue in Switzerland – Nationale Alarmzentrale NAZ, between which close cooperation is established.

## **GMLZ equipment**

The GMLZ Situation Center is serviced by the German deNIS information system, as well as by an ever-growing network of internal and external experts from various fields and departments. Its advanced technical equipment, modernized and updated at the end of 2006, including a multimedia screen for displaying the situation, four 42-inch plasma screens for TV viewing in conjunction with the latest digital recording and documenting equipment, as well as a videoconferencing system with 4 motorized system cameras, makes GMLZ one of the most modern equipped Situation Centers in Germany.

## **The German information system deutsche Notfallvorsorge-Informationssystem (deNIS)**

At present, the Internet has a lot of scattered information about the dangers of disasters or natural disasters, as well as to prevent and combat hazards. The federal center, federal states, municipal authorities and organizations have a wealth of valuable information that needs to be tied together. Employees of the deNIS project team investigate more than a thousand Internet sites and check their suitability for placing their information in general access (including emergency, rescue and service websites). Through deNIS, users are provided with more than 2000 links to Internet sites on the topic of disaster protection, including contact persons and contact addresses. On this basis, instructions and other information are provided to the Central Civil Defense Administration<sup>21</sup>.

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<sup>21</sup> <https://www.denis.bund.de/>, for 12.2012.

## **SC ESR in Brazil**

In Brazil, there are several solutions that correspond to the concept of SC – the main ones are focused on fire monitoring of the Amazon forest range, including by satellite, and other economic tasks. Particularly noteworthy is the Brazilian project Geosphere Earth Situation Room (ESR), the components of which are GeoSphere Image, the "GeoSphere Globe" and "Global Visual Library"<sup>22</sup>. The project is designed to serve the global network of installations, and is simultaneously a clearing house, a research center and an interface for international research in the field of global changes and management of Earth resources, as well as a center for tracking and visualizing global problems. The company demonstrated for the first time the proof of the concept of the "Situational Room of the Earth" in 1992 at the Brazilian National Center for Space Research under the sponsorship of the United Nations and Northern Telecom Corporation (apparently it's Nortel Networks Corporation, formerly known as "Northern Telecom Limited", in the use of "Nortel", Canada). Initially, SCs of the Earth were installed in the Toho Gas exhibition center in Nagoya, Japan, in the Vattenfall / Liseberg theme park in Gothenburg, Sweden, and the Amazonia Gallery at the Smithsonian Institution in Washington.

It is possible that such a large-scale project in the country, through one bordering Chile, is connected with what was developed by specialists who worked in their time either with S. Beer, or with D. Forrester and D. Meadows, whose activities have close meaningful connections<sup>23</sup>.

## **OGAS – project of automated management of the country's economy in the USSR**

The State Automated System for Accounting and Information Processing (OGAS) is *"a project of a system of automated management of the USSR economy based on the principles of cybernetics, which includes a computer network linking data collection centers located in all regions of the country"* [14].

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<sup>22</sup> <http://www.geosphere.com/ESR.html>, for 10.2015.

<sup>23</sup> The concept of "SC of the Earth" not only corresponds to the title of the book "Instruction for the management of the spacecraft Earth" R.B. Fuller (see below), but also literally realizes the engineering idea of the "same" author's "geoscope", proposed by him in 1963, and apparently also a prototype for the famous Google product "Planet Earth".

Initially, the OGAS project was initiated by Academician Viktor Mikhailovich Glushkov<sup>24</sup> back in 1962. By mid-1964 he was drafted a draft EGSVC. In 1965, in connection with the transition from territorial governance structures in the industry the government considered wasteful to invest in the creation of additional supporting data centers and entrusted the main part of the functions of the operational management of current materials management processes among the subjects of industrial activity in the territorial system of the USSR State Supply. Its main task was to establish production and economic ties between enterprises, which allowed to form the optimal structure of the macro-technological production process throughout the whole of the USSR and to exercise operational control over its implementation. Since that time OGAS began to be created and operated on the basis of sectoral methods of managing the economy of the USSR.

Ops OGAS G.Kh.Popov:

*«I had my own accounts to the Institute of Economics. He – as I thought – did not give a proper rebuff to the offensive of the Central Economics and Mathematics Institute. And CEMI first at all almost solidarized with the model of the full "ACSanisation" of the country of academician V.M. Glushkov (the model assumed replacement of the whole apparatus of managing the economy by a network of automated centers – ACS). Then CEMI switched to another model – SOFE, where all the planning and management was replaced by a complex interacting hierarchy of mathematical models. I, as a supporter of other views on governance, considered SOFE and ACS the main dangers, something like "electronic fascism." And, naturally, he was indignant at the Institute of Economics, which was the first who had to fight all this».*

In the same place.

It should be noted that any concerns about "technophashism" and the realities of "Alphaville" for the case of ergatic implementation of the project do not have a sufficient basis, since in this case the economy receives not the degradation of skills, but the opportunities for integrated development. In any case, this is true for the Chilean project.

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<sup>24</sup> At one time Glushkov assisted the project of the computer program "Pioneer", which was headed by the famous Soviet chess player M.M. Botvinnik. The peculiarity of the program is that, by the time of its appearance and tasks (automating the management of the national economy), it almost completely coincides with the overall objective of the Cybersrtide program, created by the Beer team for the Chilean project of the 1970s.

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Further – on projects that in one way or another could be called the application of the ideas of Stafford Beer in modern Russia.

### **SAS "Management"**

The system ([www.gas-u.ru](http://www.gas-u.ru)<sup>25</sup>) was created in the departmental subordination of the Ministry of Communications and Mass Media of the Russian Federation within the framework of the e-government project. Technological supervision was conducted by the NVision Group (system integration). Chief designer of SAS "Management", chairman of the council of designers – O. Simakov (INSOR member) [15].

Objective: to improve the effectiveness of public administration.

Tasks:

- provision of information and analytical support for the decision by the highest state authorities in the sphere of public administration, as well as in planning the activities of these bodies;
- monitoring, analyzing and monitoring the implementation of decisions made by these bodies, implementing the main activities of the Government of the Russian Federation, implementing priority national projects, implementing measures to improve the Russian economy, processes occurring in the real sector of the economy, the financial and banking and social spheres, economic development of the subjects of the Russian Federation, the effectiveness of the activities of public authorities of the subjects of the Russian Federation era tio.

The architecture of the system<sup>26</sup> is represented by three levels – IS groups:

1. The central
2. Departmental
3. Regional

The central integrated circuits include:

- ISOD (analogue of the situational room "Cybersyn", see below);
- MIS GASU "Contour" (metaanalysts environment);

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<sup>25</sup> This and other links, topical at the end of 2012, at the time of publication of the book are not valid; At the same time, it seems that not only the project sites are being supported, but also the projects themselves.

<sup>26</sup> <http://www.gas-u.ru/scheme/index/1.htm>, on 12.2012.

- MIS Federal State Unitary Enterprise "Federation" (a repository of monitoring data for 10 aspects and a primary analytics environment).

Development of the system in 2011-2012. it was planned to focus on the expansion of analytical capabilities in the interests of ensuring the planning of public authorities and the introduction of tools for assessing the situation and identifying critical situations in the real sector of the economy, financial and banking, social spheres, the development of new functional elements of ISOD, the thesaurus of the basic concepts used in the SAS " Management ", the expansion of MIS GAS" Management "due to the inclusion in its structure of information systems monitoring the state of SAS" Management ". In 2011-2012. the expansion of the list of departmental information systems is planned to be carried out by creating departmental information systems based on the analysis of proposals by federal executive bodies. In 2011-2012. the development of a typical regional solution and its implementation in all interested subjects of the Russian Federation will be implemented. In the process of work in 2011-2012. Integration of SAS "Management" with the systems according to the specified list will be carried out.

The CIT "Contour" was created inside the FIS "Federation" as an informational citadel – probably both for information security purposes and as a separate subsystem for the unification of data coming from lower levels of the system.

In general, the components of the system resemble those for the Cybersyn project (see below), but it is unclear:

- Is there a well-established and reproducible system of control points for departments and regions, and what is it based on?
  - Is there a VSM (one or more, see below) for the control object (s), and what is the degree of its (their) recursiveness?
  - Is there a system-dynamic analyzer in the IAP of the central IS?
  - whether there exists and on what basis<sup>27</sup> the forecast component (subsystem 4, see below) of the IAP of IS, what is the degree of its recursiveness?
  - does the mechanism of sewage of control actions from ISOD on the executive mechanisms in the management object (objects) exist and on what

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<sup>27</sup> Is it included in the system-dynamic analyzer, does the scenario forecasting and the logic of possible worlds.

basis? Is this function implemented through the CIS GASU "Kontur" or another system?

- Does the structure of SAS "Management" presume the use of the remaining regional components of OGAS, or is it created "from scratch"?
- what are the ultimate management objects of SAS "Management", taking into account the fact that OGAS (see above) and "Cybersyn" (see below) were created to manage the real sector of the national economy in a planned economy, while the SAS "Management" is formed in conditions of a neo-liberal economic paradigm that assumes a free market, a key role in managing the economy of financial institutions highly integrated with TNCs of predominantly foreign origin?

From the list of system tasks and the architecture presented on the site of its architecture, the answers to these questions are not deducible.

### **Foundation for e-democracy development**

In Russia there is a so-called "Fund for the Development of Electronic Democracy"<sup>28</sup> headed by G.A. Zhukov (a lawyer by education) – the grandson of Marshal G. Zhukov. In the context of SC, I found his figure by chance, when I watched the recording of the "red" rally on Vorobyovy Gory on December 24, 2011 (not widely covered in Media, in contrast to the rally on Sakharov Ave.) There he literally said that he is engaged in the development of the project, similar to the Chilean 1970. Projects of the Fund:

- "WEB-neighbors" – is similar to the project for household social networks of condominiums on the basis of "last mile" operators, which I dealt with within the framework of the stratap at the time of preparing this material;
  - LiquidFeedback PPRu.b30 – direct electronic voting system;
  - Liquidizer – account system.

Despite the existence of a unique project that works in S.Beer's senses, with a rather passionate leader at the head, the Zhukov project does not provide the SC solutions or the means of the limited management groups proper, primarily due to the specificity of the profile.

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<sup>28</sup> <http://idemocracy.ru/>, for 12.2012.

It is especially worth noting that, as of today, one of the key problems of Russian SCs is the problem of providing them with the necessary software, translating the accent of SC perception from the physical room to software and intellectual means:

*«If we talk about the availability of integration platforms, I believe that the Russian market is ready to meet the needs of 100%. The choice of integration platforms is very large. With expert systems, things are different. Demand for them is not really formed yet. It only appears, and therefore it is quite difficult to talk about the degree of satisfaction of needs in expert systems. There began an understanding that IT IS NECESSARY, but there is no formed demand. Today, expert systems have already been created and are being used in certain areas of activity. There are expert systems at the enterprise level, even corporations, but, as far as I know, there are no systems that would allow solving big, complex tasks for managing the region. They will be required, they are already required today. So the market has a lot to develop».*

Victor Abramov, InterSystems Sales Director [16]

### **A summary of current views on the Situation Center**

An analysis of current views about SCs in the world and their specific implementations makes it possible to reduce them to the next:

1. this is an existing physical room or a group of rooms, centered around one central,
2. shielded visualization of public access data,
3. on which the processed and represented mainly in the form of geometric images (graphs, diagrams, color solutions) information is displayed,
4. obtained from a set of control points,
5. stored and analyzed by machine,
6. working with a controlled system / object in the feedback mode.
7. users of the system are a limited group of individuals,
8. authorized to take collegial decisions on problem situations
9. in the most specific subject / expert area of the emergence of problems
10. under certain conditions (standard or rather non-standard situations, on a permanent or temporary basis, in a regulatory or non-regulatory order);
11. operating data using special expert tools in the analytical components of the SO,
12. using certain external and internal communication channels (mostly closed).

## The history of the emergence and introduction of situational centers

### Paradigmatic bases of SC

The history of SC is closely connected with the name of British cybernetics S. Beer, and its key project, which became the prototype of all SCs in the world to this day, is the Cybersyn project<sup>29</sup>, which Beer led by the personal invitation of the president of socialist Chile, S.Allende in 1971. The project showed high efficiency as a means of automated management of the country's economy and, most likely, became one of the reasons for the military coup on 11.09.1973 and the subsequent dictatorship of A.Pinochet, under which the Cybersyn project was canceled.

At the time of the creation of this material at the end of 2012 on the Internet (Yandex search, Google) there were actually no joint references on the request of "Beer & Fuller" (Fuller himself was also mentioned on the Internet very limited at that time). Meanwhile, numerous markers indicate that S. Beer's cybernetic ideas were based on the ideas of resource-saving management and the synergetic metaphysics of R.B. Fuhler. It is worth noting that the search for mentions of "fuller" / "fuller" in the text of S.Beer's book "The brain of the firm" did not yield any results. Perhaps this is one of the reasons why the implementation of numerous SCs in many countries of the world, despite the substantial technical equipment and even the readiness of specialists, as resources for automated management of the state and the economy, does not have the proper effect in the conditions of the world-wide and comprehensively declared in 2008 economic crisis process.

It should be noted that Internet technologies and technologies of situational centers developed as different directions, not connected with each other, as the direction of solutions with distributed architecture – on the one hand, and as solutions to ergatic (human-machine) control systems – on the other.

Here, it is necessary to take into account the extreme importance of the fact that both these directions, which appeared almost simultaneously, have become the proposals for an infrastructure basis for managing two fundamentally incompatible economic models: the planned economy on the one hand (Cybersyn), and the neoliberal economy of the "invisible hand of the market" on

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<sup>29</sup> The current website of the project: <http://www.cybersyn.cl>, actively for 10.2015.

the other ("Internet"). The combination of technological solutions of these two types should provide each of them with the advantages of the other, even if they are based on different humanistic concepts. In turn, clarification of the methodological foundations of S. Beer's works should reveal the shortcomings of existing SCs and increase their effectiveness from the point of view of the original design.

### **The idea of the CC for Stafford Beer**

On the Chilean domain of the cybersyn.cl site, S. Beer's project is represented by the following main categories:

- cybernet;
- cyberstride;
- VSM;
- checo project;
- opsroom;
- cyberfolk;
- team.

### **Cybernet<sup>30</sup>**

The world's first information bridge between companies and the government. Launched in November 1971. The project was coordinated by Roberto Cañete, a former naval officer and translator of S. Beer during his work in Chile. The transfer of data from enterprises was carried out with regularity 1 time per day.

### **Cyberstride<sup>31</sup>**

Cyberstride (Cybershag) – the name of the software developed for the Cybersyn project. The main task is to process incoming information from companies and turn it into predefined variables. The overall goal of the software is to send incoming information from companies to the operating room in an easily understood format. The data was discussed by the participants of the working group, the results were transferred back to the program, and with some changes were sent to the enterprises. The program is written under the power of IBM 360. The head of the direction is Isaquino Benadof, director of the R&D sphere for ECOM. The daily changes in the companies were fixed by the Bayesian system

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<sup>30</sup> <http://www.cybersyn.cl/ingles/cybersyn/cybernet.html>, for 10.2015.

<sup>31</sup> <http://www.cybersyn.cl/ingles/cybersyn/cyberstride.html>, for 10.2015.

(developed by Harrison-Stevens-Bayesian), determining their activity by the values of amplifiers, filters and the values of the pre-specified forms of normal, anxious and crisis states, and thereby creating a dynamic model that predicts crises in the future and helps to take decisions before they occur. The system was developed by the team of ECOM (Chilean Computing and Informatics Enterprise) jointly with the British company John Anderton. During the development of the project, Isakino Benadof visited the United States and Canada for scientific purposes. The final conclusion was the recommendation to use telephone networks as data transmission channels. However, Cyberstryde was never applied, breaking one of the most ambitious ideas of the Cybersyn project<sup>32</sup>. The Cyberstryde project site is estimated as a Chilean transportation information system parallel to the Internet.

A significant (if not the key) moment of Cybersyn's work is the computer processing of telex data, which turns them into standard pre-set variables, that is, in fact, simulation of controlled reality. In turn, the different indicators of the sets of these variables can correspond to different estimated (algebraic, in the terminology of S. Beer) values of industries or groups of indicators, indicated on the "traffic light of threats".

### **The Model of a Viable System, or VSM<sup>33</sup>**

The Viable System Model (VSM), or the Viable System Model, was developed by S. Bier for a project consisting of three structures that create favorable conditions for the development of management and the dynamics of processes in three respects:

- the environment of the body;
- the operating area;
- metasystems.

The VSM model structures the organization of any viable system, where the latter is understood as any organized system combining the survival requirements in a changing environment, primarily by adapting to environmental conditions. A

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<sup>32</sup> In view of the information that Cyberstryde has never been used, the system of operational situation modeling by groups of parameters and their generalized assessment for the criticality of states can be considered as capable of having applied success in the implementation of the SC in its original meaning.

<sup>33</sup> <http://www.cybersyn.cl/ingles/cybersyn/vsm.html>, for 10.2015.

viable system has five subsystems that work mutually, and this can be identified through the diverse structural aspects of each organization.

### **Checo project<sup>34</sup>**

The CHECO project (Chilean Economy) had as its main objective the modeling of the Chilean economy and the creation of simulations (models, scenarios) of future economic indicators. This was done using the software "Dinamo", originally developed for the tasks of the Club of Rome by MIT professor Jay Forrester in 1971. In the control room, this application appeared on the screen "Future", turning this instrument into a sort of thermostat that defines directives for medium- and long-term solutions. The "Dinamo" application within the Cybersyn project was implemented by the British consulting company Ron Atherton and was established<sup>34</sup> by a working group led by chemical engineer Mario Grandi<sup>35</sup>. One of the major breakthroughs of this application was the decision made by S. Beer and the rest of the team to find ways to establish real-time communication systems and solve the problem of time delays associated with the use of a teletype.

### **Opsroom<sup>36</sup>**

The operation room, or control room, was the place of physical presence and laboratory experiments. In the book "The Brain of a Firm", S. Beer explained the need for a special room for obtaining information, storing it, and making decisions. On the site Cybersyn the device of the room is indicated based on the principles of Gestalt psychology, allowing the user to perceive the information simply and comprehensively. The room is designed within the framework of the Chilean Institute of Technological Research (INTEC), coordinated by engineer Roberto Cañete. The room was a hexagonal, organic shape, ensuring the correct arrangement of the elements. The equipment is presented:

- 7 revolving chairs equipped with personal visualization control panels to optimize internal and external communications;
- screens «Future», VSM and emergency reports received in real time mode;
- the data feed system.

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<sup>34</sup> <http://www.cybersyn.cl/ingles/cybersyn/checo.html>, for 10.2015.

<sup>35</sup> In other sources, Forrester's "Dinamo" is mentioned as a special programming language designed to build and study computer models using the system dynamics method, on the basis of which the Wold-1, Wold-2 and Wold-3 models were created, the predictive results of which were laid down in the basis of the reports "Limits of Growth" of D. Medouz's group to the Rome Club since 1972.

<sup>36</sup> <http://www.cybersyn.cl/ingles/cybersyn/opsroom.html>, for 10.2015.

## **Cyberfolk<sup>37</sup>**

Cyberfolk was an experiment to provide real-time citizens with a chance to communicate with government decision-making groups and thereby ensure democratic participation in this process. The experiment was conducted in the cities of Tome (Region 8) and Mejillones (Region 2). The municipalities of both cities were connected to the houses of a group of residents of each of them. The closed television exchange of information allowed citizens to view the sessions of the municipal council and take part in them. So, one of the sessions was devoted to the adoption of the budget, and residents could vote in the course of the meeting with the help of an algebraic arrangement placed in the household. It should be noted that the switch was analog, it represented a continual differential within the values of "good-bad", which was due to the very concept of electronic voting and participation in parliamentary work, and not the technological dominance of analog devices of the 1970s. This principle allowed to give the most correct expression of people's assessments about the decisions made, how good or bad they are, and directly and unambiguously display them before the people's choices. One of the key components for Cyberfolk was created by the son of Stafford Beer, and on the figure presented in the section of the Chilean site is presented the author's scheme of the project, on which one can see the algebraic switch.

### **Summary resume of the Cybersyn project**

Cybersyn is not actually a situational center (SC) in the prevalent (see above) meaning of this expression, although it became the prototype of what is so called. Rather, it is a project to create a system of holistic management of society based on new technological solutions – that is, in fact, a civilizational project, rather than the development of private management technology. Considering it in this vein, it can be said that the project was an experiment in the field of principles of public administration, while the majority of state SCs today are information and analytical collegial complexes in which the ideas of VSM and the software (especially analytic) component are very poorly represented. In addition, Cybersyn's "computer machine" was opposed to the bureaucratic machine of the state apparatus, which should be taken into account when determining the tactics

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<sup>37</sup> <http://www.cybersyn.cl/ingles/cybersyn/cyberfolk.html>, for 10.2015.

of introducing into non-centered (cloud) management systems into large corporate and government structures, which are discussed below.

## **The ideas of S. Beer on his book "The Brain of a Firm"**

### **World outlook grounds of S. Beer's views**

Stafford Beer can be considered with great certainty both as a fullerian and as a peripatetic, the main indication is the description of the device of interpersonal structures on the principle of the human nervous system; but it is highly doubtful to generalize this nervous system to a 5-member structure and, moreover, to extrapolate this model to social formations (such extrapolation is still a subject of discussion in the science of society), all the more recursively (although the understanding of the idea of recursion in Beer is extremely important practically). In addition, considered by today's biologists as evolutionary pretenders to reasonableness after humans – cephalopods – have a different structure of the nervous system than in humans.

On Peripatetism, Beer himself directly points out in Part 4 of the book *The Brain of a Firm* [17], where he notes entelechy as a model of progress, contrasting it with the criteria of progress on the basis of "classical" concepts of per capita income or life expectancy. Entelechy is a complete realization as a function (virtual value, compare with V. Papanek's "telesis"). Also, the project of anthrodonodes in households (within the framework of the Checo project) is considered by Beer as the realization of the Aristotelian idea of the eudemonistic "welfare state".

According to Beer, to govern means to control the future. Modern Internet is a means of escapism and informobmenena, but not management. Those who use the Internet to manage are either hackers or media people. Internet users do not correlate with the future, they "like" in this "bright Internet future" already live and from that get high, that to the real future (management and planning) has nothing to do, and therefore has nothing to do with to freedom.

### **The components of the 5-particular model of Beer according to his ideological foundations**

The idea of the self-similarity of the 5-member model of the organization at all its levels may be. is represented by the idea of self-similarity ("recursive organization" according to Beer) with the reproduction of a different model, different from this one. For peripatetism may not be so strict, and the organic system on a particular material stratum may not be self-similar. In this case, the 5-

part model (as well as all the links in it) inevitably is functional, rather than structural, because it is precisely the functional generalization of the human nervous system. At the same time, the notion of recursion in Beer is described in the framework of the concept of the model, however, proper recursive thinking and understanding of the nature of things is not considered by him as an alternative to the actual model (the possibility of which I tried to demonstrate in the corresponding section).

In addition, ontological ideas of virtualistics among the provisions on organizational self-similarity of Beer are not noticed. However, this is understandable, since actually virtualistics was originally built for the problems of psychology of extreme or critical states, and not within the framework of the general control theory, although, of course, such ontological grounds quite organically combine virtualistics with cybernetics of the "second wave".

In addition, Beer is certainly a significant size, full of managerial empirics, but he is not a specialized specialist in social sciences, such as sociology or economics. It seems that the economy with its leitmotif of balance of its own categories has yet to undergo interpretation in terms of Beer's ideas (or, more precisely, a repeated and deeper interpretation within the framework of the neoeconomic concept of imbalance). In my opinion, here the ideas of the "traffic light of threats" and those things that I spoke about in relation to the relationship between forecast and project activities can be well applied.

"The complex internal homeostasis management" firm PQRS Beer, emulating the nerve node in the vertebra, in fact, is a tetrahedron, and corresponds to the tetrahedral tensegrity-mechanics of the vertebra itself. Thus, Beer's homeostasis may well be interpreted in terms of the equilibrium of Fuller's forces (and the corresponding structural-spatial expressions).

### **S. Beer's attitude to the financial system and monetarism**

Very relevant in the period of the global economic crisis of the beginning of the XXI century are the following phrases:

*«The cybernetics of monetary circulation seems to be completely alien to the cybernetics of a free society, as demonstrated by the Chilean experiment, since the regulatory tool that is included in the model of what should be regulated in such a society*

*excludes the growth of diversity as a means of adaptation and evolution of any changing economy».*

*«Monetarism excludes the diversity of the real economic world as a consequence of its regulating model, unable to cover a larger».*

S. Beer, "Brain Of The Firm"

The Gremio Strike 12.10.1972 is an example of manipulation (ideological, based on fear) of small business by US special services. In general, the "middle class" based on the petty bourgeois is very manipulative (an example of the already battered theme of "white ribbons" and other color incriminations in Moscow on 12.2011 and subsequent years).

In his book, Beer talks about a way to destroy the integrity of Cybersyn by the establishment of Chile through the adoption of some of its parts without the adoption of others (for example, an algebraonomist). The same should apply to any similar projects undertaken by someone.

### **About cybernetics and social projects**

*«The call for "road to production" is still a necessary feature of the Chilean revolution, and the call for "road to regulation" is an additional requirement of a complex world, the experience of dealing with which has not been assimilated or taken into account either by Marx or Lenin»<sup>38</sup>.*

S. Beer, "Brain Of The Firm"

Beer mentions his own theory of social cybernetics (see Part 4 of his book). He made proposals for precrisis management for four other countries after the events of 11.09.1973 in Chile, and they are also relevant for the global crisis wave that began the mortgage problem in the US in 2007, as the crisis of those years was delayed to these. On a close subject, R.B.Fuller argues in the book "Smile of the Giants", written in 1983.

### **Forms of behavior of an organism**

The crisis in Beer is a form of behavior of the organism, which must have a sign of non-overlapping with other forms: status quo, saving, costs, dying off, aggression. Thus, the variant of interpretation of SC as non-dispatching is not entirely correct,

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<sup>38</sup> With an amendment to what I was told about the nonsense of centering both on "production for production" and on "money for money".

because both unexpected and crisis situations are just one of the forms of behavior of the organism managed from the situational room.

Instead of a balanced analysis in the context of a rapid (crisis) transformation of the economy, Beer offers simulation models of industrial sectors and their interactions, taking into account internal and external investors, which is necessary for analyzing the "metasystem of states trapped in a trap" (Beer expression).

### **Socio-political definitions and criteria of Beer**

- "The Trap of States": money from external exchange is used to maintain high consumption of elites (exit – nationalization of industry)<sup>39</sup>.
- "Social tension": the number of people who receive salaries relative to the number actually working.

### **The mention of Beer authors in the list of literature**

The author of OGAS V.M. Glushkov is mentioned in the list of Beer literature. Given that his list of literature on cybernetics is quite rich, with comments on most books, there are no references to the works of R.B.Fuller. The reason for this may be that in the 1970s Fuller was not recognized by all the representatives of the scientific establishment, to which Beer himself belonged, and, possibly, the absence of direct references to Fuller, with obvious allusions to his ideas, concepts and names may mean the desire to get rid of possible attacks.

### **Cloud situation center or non-centered control system as an opportunity**

The very title of this section indicates both the contradiction contained in it and the way to overcome it: both in terms of organization levels and in the urgency of tasks with which centering can be associated.

### **The notion of communication media common at the beginning of the 21st century**

To date, the development of Internet technologies has evolved into the mainstream around the following areas:

- search and recommend "portals" of the output to the network (Google, Yandex, etc.), convergently incorporating many additional services (mail, market,

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<sup>39</sup> What corresponds to the neconomic understanding in posing the problem, but not in the solution.

micropayments, news, dictionaries, multimedia, etc.) and working on the principle of "request -An announcement ", incl. deferred;

- social-networking environments of online communication;
- data processing virtualization environments that take the task from the "desktop" to the "cloud".

Among them, the most widespread and massive in terms of the number of users of the communicative environment is nothing else than the implementation of the sociology of the social network on the basis of the so-called "social software", which is based on the system of searching and fixing the priorities of communication (french), equipped with information exchange options (post and re-post multimedia, chat rooms, forums and personal walls). Unlike pure IM solutions, social networks provide ample opportunities for navigating the community environment and choosing communication priorities, in addition to their manipulative function based on psychological compensation factors.

Features of social networks (as well as the entire Internet space) for the first half of the XXI century are the following:

- the discussion of subjects does not involve the use of computers and a communication network in the overwhelming majority of cases (at least on a mass level of Internet use) for:
  - making decisions about the impact on these subjects;
  - Influence on the objects based on the results of such decisions;
- Impossibility of influence on the discussion subjects on the same virtual channel, on which the decision is made (for example, color revolutions: the coordination platform is on the network, people influence the infrastructure objects offline);
- lack of equipping professional communities with unified tools, collegial access to them and ergonomically presented results;
- the lack of an Internet infrastructure of "control points" (see the section "Problems associated with the development and implementation of the "control cloud" below).

Logical steps in the development of social networks, primarily profile, are the formation of project teams (in the sense of the above-mentioned design activity), as well as the supply of specialized solutions SAAS (SOD), which have not yet been

widely disseminated (at the end of 2011). Meanwhile, the addition of additional options in electronic social networks (in the online social software) by analogy with the "mainstream" portals (search engines, postal workers) does not yet guarantee productive activities related to their use – more than using a "toy utility".

The use of a virtual environment of communication with the growth of the public good and the maximum use of all options from the category of utility are seen only in the way of changing the paradigm of user presence in such an environment. Such a shift, and a very significant one, can be provided by the concept of a management system with a user presence (a special case of which is SC), which was created for a fundamentally different model of management, but allowing the advantages of "distributed" technologies, sufficiently developed to date.

In this case, the social environment is able to represent a workspace, the main advantages of which will be the modularity, scalability and interchangeability of the components of the presence, inaccessible to their "physical" version. And, of course, the main advantage of such integration will be a significant reduction in the cost price of negotiation sites precisely as a decision-making and control site that excludes significant expenses for equipment and organization of work typical for off-line "user management" systems<sup>40</sup>. Of course, all this – with the proviso that offline formats of decision-making and social-network presence have a special value and development trends.

## **Problems associated with the development and implementation of the "control cloud"**

### **The Internet is a place for discussion, not management**

An important point is that almost all existing SCs (even if they are no more than dispatching systems) are oriented to the management of the real sector of the economy (the prototype of the cloud system of expertise and decision making – the Cybersyn project – was created to manage the planned economy and

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<sup>40</sup> In 1996, within the framework of FAPSI, the basis for the management and operation system of the RSNET network was created, allowing up to 4000 users to operate, within which the main network node connected to the Internet and a number of secondary access nodes were put into operation. The main node had two channels with an Internet network (main and standby) with a guaranteed bandwidth of up to 8 Mb / s. 11.03.2003 FAPSI was abolished. The agency was divided among themselves by three departments: FSB, FSO and SVR. Functions of the RSNET operator passed to the service of special communication and information with FSO ([http://www.ci.ru/inform21\\_04/p\\_22.htm](http://www.ci.ru/inform21_04/p_22.htm), for 10.2015).

increasing its efficiency, where the share of the real sector was dominant), whereas social networks are associated with the management of processes in the real sector minimally, because they were created (as well as the Internet itself) within the framework of the concept "Virtual economy", which is one of the key problems of developing a "combined" product of the type in question ("Internet concepts" + "solutions in the sense of Beer"). This, in turn, means switching the broad masses of both individual and corporate users from the information exchange processes, which are priority activities within the Internet<sup>41</sup>, on management processes (and, of course, monitoring), which, in turn, means, first, more intensive implementation of software network monitoring tools (web monitoring on the Internet is no longer a novelty) and analysis, and secondly, the provision of funds and protocols of impact on the control object, which in principle lies outside the existing paradigm of the Internet. In addition to webcams and UGC, AR solutions (Augmented Reality) were the closest to solutions in the sense of Beer, however these solutions currently operate mainly:

1. on mobile terminals;
2. in single-user mode;
3. do not assume the impact on external users of objects of reference interest;
4. control the movement of the user and its orientation in the surrounding space.

Another existing solution today, close to the management decisions in the sense of Beer, is a different kind and level of the system of security and enterprise management, including the class of "smart house" systems. However, these decisions:

1. are not a means of generating innovation, and situational rooms are predominantly control rooms (simple dispatching rooms);
2. act on a limited set of control points, and localized;
3. do not provide a flexible and differentiated access rights system (with the exception of apartment security systems, where both the owner and the security agency have access to the status data, but here the monitoring parameters are fairly simple);
4. are predominantly single-user;

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<sup>41</sup> NSFNet, which became the framework of the modern Internet in the early 1990s, appeared in 1984 as the heir and competitor of ARPANET in the form of an interuniverse network of the USA.

5. are not integrated or poorly integrated into the Internet (primarily for security reasons).

In general, the single-user nature of Internet solutions in question is in the general cultural framework of the atomization of personal life, closely related to the Internet as a cultural phenomenon inheriting the culturological features of the environment in which it originated. The modern Internet user does not choose the level of virtual reality that he could influence and in which he would prefer to be present more efficiently using modern computer technologies.

### **A general conceptual outline of the transformation of e-communities into management systems**

At first glance, there is a paradox in the notion of "cloud SO", when a system is created that has a center and periphery, but is implemented in the medium of information exchange, which presumably assumes non-centeredness. The solution of this paradox is seen in considering distribution and centering not as incompatible opposites but as mutually complementary opportunities in which the "centers" quickly form and dissolve in a single environment reacting to a field of heterogeneous control points that differentiates, modernizes and lives an independent network life. This, in turn, is possible in the case of an emphasis on the urgency of professional and project activities (as discussed above). The information from these points is processed by the server power on the Cyberstryde software, which receives parametric and estimated (albedonic) models from the user's communication environment, and gives information about the status of groups, clusters and objects of monitoring points to the general user access, including in the recommended mode, by groups of users with the most relevant expertise. As a result of the delivery of the cloud server, users create workgroups and situational dispatching rooms (meeting rooms) using the means of communication available to them (IM, friendships, forums, VCS, e-mail), with the possibility of feedback to control points depending on the access rights system, the complexity of which depends on the size of the network.

That is, the periphery of each center (cloud or virtual SC), created ad hoc and known for a while, is not other centers within the communicative environment or its other users that are not part of the nuclei of social network communities, but accessible to control and management " off-line "peripherals that are displayed

online through control points (including – monitoring of virtual projects or simulations).

In the modern Internet environment, the systems of rating and evaluation are an algedonical analogue of control points. Since the average Internet user today is a predominantly recessive participant in the processes of information processing and exchange (excluding top bloggers, the history of promotion of which up to the "network opinion leader" phase is in most cases ambiguous), his opinion is expressed in the general flow of such means of answering "socially significant" questions, although he himself usually does not ask these questions<sup>42</sup>. In connection with this, within the framework of the creation of such systems, the task arises to translate the emphasis from a low-productive forehand, as well as recommendatory and marketing in essence "search" in the "almighty" computer environment, the productive activity of the cloud presence, that is, its human machine, ergatic aspects, where the computer component only complements the user. The problem can be solved by creating two statuses of friends: by "supply groups" and "demand groups", and heuristic closure of one group by another in the framework of a single portal solution. Both of them get relevance based on the thematic basis, and the very formation and period of existence of the "groups" or "centers" will depend on the nature of specific tasks identified by the system according to the user-defined scheme of criteria and models. To do this, you can initially offer as simulation objects simulators: not escapy game (MMORPG), but simulators of real processes, including production, in which quickly formed groups could build models of possible states (worlds) that are applicable to the real world and have significance, and hence the market price. Simulators, therefore, must be playful and relate to real things. It is also worth noting that the room itself with a common access screen in common types of situational centers already has a communication platform, and when creating a cloud solution, the problem arises of emulating it precisely as a site, and not as a

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<sup>42</sup> In this regard, for the difference between mass voting (telephone, anonymous polls, etc.) with the help of an albedo from common televoting systems, and related problems, see Beer himself in the third edition of his book, "Brain of The Firm". At the same time, it should be taken into account that the algedonode, as it was said, is essentially analogue, or more precisely, a continual system (even when implemented in a digital environment), whereas "widespread televoting systems", including the Russian GAS "Vybory" system, are essentially discrete, and do not ensure the democratization of the process of interaction with respondents (ie anonymity is necessary, but not sufficient condition). The implementation of the Algonodon in Runet as a means of direct expression of will based on the principles of the Cyberfolk of Beer can be a breakthrough solution.

communication channel, which, in particular, is possible through an extension of one user's LC (personal SC) to the meeting room.

### **Aspects of cloud management system**

The cloud control system is the center because it assumes the periphery it controls and interacts with. In this sense, it is precisely a situational center that unites expert ad hoc groups on working tasks (with respect to the demand generated in their environment) with the maximum set of means for their solution, rather than a "virtual call-center", as well as what is called "the center" without "periphery", from the fashion "of the word" ("medical center", "shopping center", "fitness center", etc.). Cloud SC is proposed as a set of SAAS-solutions aimed at implementing the principles of object management based on the principles of Beer decisions, for the rapid formation of working groups and network relationships such as demand-consumption.

The overall goal of managing any system (real or simulated) in such a solution should be to maintain its viability, which makes it look like a toy "tamagocchi". However, unlike the latter, management is carried out:

- predominantly in a group way;
- a system that is predominantly independently created by the actors controlling it in a real or simulated world;
  - a system with a greater variety than conventional tamagochi, robotic toys or household robots (vacuum cleaners);
  - a system capable of acting not only as an object, but also as a means of managing a different level;
  - for the purpose of integrating a viable system into socio-economic and commercial processes (forming demand for it), and not only with self-sufficient maintenance of viability (such as a "virtual fish");
  - by making ad hoc private decisions in situations of critical or unstable operation of the managed system;
  - multiple systems that operate in a distributed mode or are integrated into one metasystem.

Solving the problems of cloud SO:

- commercial – due to mobility, cost savings and efficiency of regrouping-adaptation to the changing working conditions of the group and the existence of the management object;

- content – due to the basis of the original idea of the SC and the combination of the two mainstream areas of computer science and the IT industry, formerly separate.

Regulations for communication of groups that are formed for the development of various situations, including situations of work tasks (temporary work, freelancing), incl. It is proposed to determine the following non-trivial parameters with respect to the following parameters:

- urgency;
- working hours;
- the order of command in the group;
- order of speaking / interaction;
- expected content of speeches;
- pair or conference communication;
- communication channels (IM, SMS, forum, blog, VCS).

Common room (meeting room, control room<sup>43</sup>):

- the interface;
- the screen;
- the procedure for updating the data "from yourself – on the screen" and "from the screen – at home".

Points of control (the periphery of the "center")<sup>44</sup>:

- where do they come from? The problem of availability will arise in the case of large controlled objects, but it can be solved, for example, for small-controlled small objects or public space objects;
- whether they can be influenced from personal or general control rooms, or "SC" is reduced to informational and analytical advisory rooms;
- difference in the types of accessibility of control points: restriction of reading – only reading – reading and impact;

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<sup>43</sup> In Russian, it seems, there is no adequate analogue of the word "dispatching" with another connotation.

<sup>44</sup> This is a sensor issue, only broader and, in this context, a key one. The theme goes well beyond camera phones. This aspect of cloud SCs should become a driver for MEMS when it comes to the impact of controllers on control points.

- personal;
  - corporal;
  - household;
- corporate and production;
- public with the possibility of expertise on them;
- infrastructure and culture of using sensor networks.

Expert tools (in the LC and autonomous clouds), according to the principles of the Cybersyn project, are proposed to be created for the following tasks:

- unification of data from access points and modeling of conditions of degrees of danger of a condition of system<sup>45</sup> (analog of Cyberstride);
- predicting possible states of the system depending on a known set of environmental conditions (analogue of the software "Dinamo" – prediction of threat sources and required points / objects of control, with output to a separate screen);
- determination of the homeostasis conditions of the object / control system with respect to:
  - current state of threat levels (external and internal);
  - the predicted state of threat levels (external and internal);
  - planned state of the object / control system (the expected trend is<sup>46</sup>).
- development of recommendations (including machine heuristics) by decision with a transparent way of tracking their rationale for the results of unification, forecasting and homeostatic opportunities;
- transfer of solutions (via Cyberstride analogue) to control points by the principle of bringing the parameters of control points (and their groups) to homeostatic values.

#### **Comparative advantages of a cloud-based situation center**

<b>Offline SC in the "ordinary" sense</b>	<b>Cloud SC</b>
Physical locality even in the case of "mobile housing" solution, the destruction of equipment and team	The distribution of participants, expert tools and means of communication in the "cloud" actually implements for the

<sup>45</sup> The model of the system itself is proposed to be given a classification, since for every control object it is not always possible to obtain a set of its 5 components of viability, but almost always a set of aspects of its existence.

<sup>46</sup> On the Cybersyne website, in the description of the "Future" screen, the issue of the management effectiveness examination (the ratio of the real, expected and planned states) is not affected.

members.	SC the principle of the indestructibility of the entire control system <sup>47</sup> .
The replacement of team members is difficult even in the case of prompt communication with them.	<p>The turnover of team members is more rapid and is possible within the framework of:</p> <ul style="list-style-type: none"> <li>• recommendatory service;</li> <li>• availability of a ready reserve of experts (with varying degrees of readiness);</li> <li>• heuristic mechanisms for changing the group, depending on changes in the subject-expert conditions of the current situation.</li> </ul> <p>In addition, the distribution of the members of the expert group does not depend on the localization of the management object / problem object and its control points.</p>
Formation of the operational reserve of members of the SC is difficult even in the case of prompt communication with them.	<p>The operational reserve is formed on the basis of:</p> <ul style="list-style-type: none"> <li>• the current assessment of the status of the expert community (automatically), and</li> <li>• Estimating the likely expectation of a situation by demanding the involvement of experts of different profiles.</li> </ul> <p>Based on the results of the heuristic selection, messages about this are transferred to the personal SC (accounts) of the members of the expert community.</p> <p>Replacement of the required member</p>

<sup>47</sup> Like the indestructibility of the ballistic missile launch control system, for which Arpanet was originally created.

	of the group is carried out by prompt notification of the reserve of maximum readiness.
Requires expensive equipment (including service) and premises.	<ul style="list-style-type: none"> <li>• The cost of server hardware and expert software includes the potential to create SCs of any architecture for any period.</li> <li>• The cost of user equipment is limited to the personal terminals of group members who have access to the cloud room in the cloud.</li> </ul>
Requires local customization of expert software (including service).	Local configuration of expert software is not required, since access to the system is via the cloud interface.
Required costs for protecting the premises and maintaining the confidentiality of the work of the SC.	Protection is limited to software tools for access control and information security, as well as network protocol.
Operative formation of meetings on supernumerary situations requires the presence of team members in the premises of the SC.	The formation of meetings requires the presence of an operational terminal and network involvement.
Predominantly fixed interface, depending on the data type and associated data control points.	The interface is quickly changed and configured for specific tasks of the customer-user virtual SC.
The ability to integrate with backup SCs requires separate approval and connection procedures.	The network of virtual SCs, if necessary, can be formed according to the principle of franchising, and be limited – according to the protocol of the network of use and compatibility of the subject.

## **Methodological requirements for the development of computer systems working in the logic of dialogue (as an application)**

At present, the development of systems and solutions that ensure a deep realization of human-machine interaction, including, first of all, ensuring the most natural and, if you like, understanding nature of such processes, continues. Among these processes, the most interesting are those that implement interactive mechanisms of information exchange, as close as possible to their natural forms. Meanwhile, to create models of this kind of systems, be it monitoring systems, automated decision-making systems or viable cybernetic systems, it is necessary to solve a number of significant methodological problems for which, in turn, their correct formulation is required. These tasks acquire a place in the field of logic, and the development of specific aspects of it, related to the dialogue, will allow to build application algorithms that effectively implement the required functionality of the marked systems.

I propose the following areas of thematic work aimed at setting objectives and identifying problems associated with the logical explication of the dialogue:

1. Building a model of dialogue. In modern classical logic, the model is, first, the model structure  $\langle U, I \rangle$ , where the interpreting function of assigning the values of  $I$  runs through the subjects of the field of the Universum  $U$  and, secondly, the set of model conditions that constitute a list of criteria for assigning the set of basic expressions, realized in the terms of this logic, a certain set of values. In the logic of the dialogue, however, there may be  $M$  universes (the polyversum is a new term, but in modern scientific usage is quite well established) and  $N$  interpretation functions, since communicants can have both an interdifferent subject ontology and ways of constructing the relationship of following. In addition, in the process of communication, linguistic relativity can be overcome both along the line of uniting universes, and along the line of convergence of interpretations of different universes in different languages - that is, the model structure of the dialogue logic is dynamic in time.

Obviously, all this leads to a radical revision of the very notion of a logical model. It is also obvious that this situation assumes the variability of the model structure. If we proceed from the assumption that different subject areas are part of one in an infinite process of cognition, then the elementary model structure of the dialogue will be  $\langle 1 \times U, N \times I \rangle$ , which brings together the problems of logical

modeling of dialogue with the hypothesis of linguistic relativity of Sapir-Whorf in its strict and mild forms, as well as with the problem of the conflict of interpretations related to the discursive traditions of philosophical hermeneutics. At the same time, the presence of even such a model structure still requires the construction of a model proper, in which, for example, two sets of criteria for attributing logical values, and proofs of its semantic consistency and completeness, would somehow coexist. Similar systems with a double set of values have already been built and proven – in particular, the deontological system of prof. Ivleva with a classical set of values {1,0} and estimated {well, no way, bad}.

2. Many natural communicative expressions are largely modeled and subjunctive, like the famous golden rule of ethics, the natural form of which can be expressed as "do not act with others as you would not want to do with you." I remember how a few years ago, at a conference on logic at the Institute of Philosophy of the Russian Academy of Sciences (Smirnov Readings), much time was devoted to proving that the formalization of this rule is irreducible to the law of contraposition. However, in my opinion, the problem of logical comprehension of this rule consists precisely in the fact that it is a conditional relationship with two types of modality in its composition, and its canonical semantic form should be: "if there is no desire to receive some state, one should not create this state is different, "where" desirable "is the operator of the axiological modality, and" must "is the deontological. And for them, again, model conditions must be prescribed, and such that the "golden rule" in this system would be a law (modelically universally valid) or at least feasible, the whole system would be consistent and complete, and, at the same time, the model structure described in paragraph 1 would be realized.

In addition, the development of an approach to the implementation of computer algorithms that work on the logic of nonclassical modalities ("should", "desirable", "allowed", etc., although modal logic is itself considered nonclassical) must correspond to the logic of conventional computer algorithms (explicable in The language of the Classical Logic of Statements), but here it is necessary to make a clarification: rather, it should still be either about the deontological formalism directly implemented by the robot, consistent and complete, or about the transfer of such formal ("necessary," "possible," "accidentally"), but in the latter

case, first, you still have to deal with non-classical logic, which somehow needs to be adapted to a computer, and secondly, to solve the problem of immersibility of logical systems for a particular case. In any case, the machine understanding of modal logic in its "basic" – alethic – version is a separate R&D task.

3. If we turn to the same golden rule of ethics, then this is an imperative. Imperatives (including teams), questions, oaths and similar statements are performative speech acts constituting what is intersubject communication, or dialogue. The peculiarity of the logic of dialogue in its formal expression, unlike classical logic, is that the latter deals exclusively with constants verified as true or false. The distinction between constants and performatives is introduced into the scientific context of John Austin in his Theory of Speech Acts.

If we do not touch upon the logic of the questionable expressions, in the possibility of reasoning by which Aristotle doubted in one of his analysts, but which nevertheless today is a very interesting, extensive and fruitful direction, there still remains the problem of the verification of performatives associated with the question of how to assign a truth value to expressions like "bring water", and what general logical value can be assigned to them – that is, how they can be logically modeled. It is obvious that the expression "water is brought" is not performative and does not apply to the order of constituting a dialogue.

Взятое само по себе, выражение «принеси воды» бессмысленно. Это важно в том аспекте, что логическая экспликация смысла, с одной стороны, относится к области речевых актов, а с другой стороны, к области логической прагматики (изучающей отношение между знаком и пользователем языка). For current problems related to the machine implementation of the dialogue, it is proposed to focus on developing an approach to the implementation of computer algorithms that work on the logic of imperative speech acts, without addressing the issues as a separate topic with its own specifics. In the case of non-operatives, the logic of the dialogue receives a measure of the logical pragmatics realized by  $n > 1$  number of users of the sign system, which, in turn, taking into account the establishment of the unity of the universe and the language system (see above), leads to the discovery of the applied task of ensuring the unity of understanding of integrability / extensionality of the language contexts within the framework of the machine-formalized dialogue as a private, albeit cornerstone, theme in the

body of interpretation problems, in this case interpretation of natural language commands.

Thus, it was possible to identify at least three areas in the science of logic, the resolution of problems in which can significantly advance the machine implementation of a full-fledged dialogue communication.

Having considered the topic of managing viable systems from the fundamental positions that have significant authorial and product attachments, it makes sense to say a few words about medicine.

### **Very little about medicine**

The psychosomatic medicine in my discussion of the three main spheres of human management is correlated with the other two, at first glance, in the same way as in the Deles interpretation of Stoic philosophy, ethics correlates with logic and physics in its example with the egg: *«place of ethics – between two poles: between the shell of the logical surface and the yolk of physical depth»* [18, «Twentieth series: the ethical problem of the Stoics»]. Here one can argue and turn this analogy in such a way that just the parallel of the Stoic-Deleucian ethics turns out to be a social one placed between the microcosm of the psychosome and the macrocosm of the extra-human environment. It is possible to turn the matter and so that to look at the physical as the invariants of universal existence, discovered by the subject of knowledge, in its delineation between the depth of the psychosome and the surface of the society and, to the extent of this delineation, controlled. Be that as it may, there may be several positions, as the condition for their legitimization is the metaphor itself, whatever the quality of management in each of the three spheres depends on the quality of management in the others. That is why a lot of attention was paid to a holistic view of society and general issues of scientific development.

As for the actual medicine, the scarcity of attention paid to it as a sphere of administration is due to the fact that it is hardly possible to talk about health without the health of the medicine itself, and in its turn it is considered irrespective of the health of the society that can afford it development. At the same time, in turn, the orders of competence complexity within the industry

itself, as well as the orders of complexity of medical sciences, are not directly related to what is being discussed in this book.

### **On the ability to reason on public topics of other representatives of the medical profession**

The following is inspired by the recent arguments of a liberal educated physician, reduced to the thesis "capitalism is good, socialism is bad".

I noticed that the problem for many is that they consider themselves free to reason about historical, humanitarian and social science topics. Especially in this trap other doctors come to believe that if they know so much about a human being, they are already capable of expressing something intelligible and correct about the structure of society and personality as a product of social organics. As a result, as a rule, a heap of vulgarities is obtained, at best – social Darwinism (something near-fascist). If I, for example, began to say that a simple cut of a finger can be treated not with a band-aid, but with a strong antibiotic or aspirin, then this would cause a righteous professional indignation. Moreover, if I at the same time began to treat SC, the patient would have fled from me. Meanwhile, talk about methods of treatment of a social organism is conducted "with a scientific kind of connoisseur" on the part of those who have no idea about the processes in society. It can, of course, be said that the medical opinion, and especially the effect that follows from it, is fraught with consequences for the health and even the life of the patient (and legal for the doctor), whereas the opinion on abstract humanitarian topics is not, because there seems to be no decision. However, this is not the case: taking a position on these issues, we automatically make up a certain number of consonants and supporters (or not) of those who make decisions – for which, by the way, there are destinies and lives of more than one "case". And the more so, the more simple and dissenting judgments – for, speaking out on general questions, we tend to consider our opinion to be correct or unique. That is why, sometimes when cones (or, incidentally, bombs) start to fall on our heads, it's not too bad to think about how much our own consent or disagreement with some "abstract" position is the reason. Disagreement, among other things, leads to the search for like-minded people, the spread of ideas and the change of device. And it's not that socialism is better (it was not in Russia, as such, but rather, it was somewhere in Austria, for example, but it's almost an entirely different country both in scale and geography

, and history), but the fact that it is the political-economic-social mechanism of the relations of capitalism, perceived as a certain ideology of something progressive that is not understood in its essence, will easily send a person committed to it and counting on high incomes and on the street public respect. Humanism finds its effectiveness in the knowledge of the subject (medical, social), for example, in knowing where the "social network" originated, or what to do to preserve what has been achieved, and the task of educated people is to exchange knowledge as far as possible.

### **On the activity prospects of medicine**

According to Grigoriev, regionalization leads to more complicated activities, as the expansion of markets, and the consequent globalization, leads to a simplification of activities. Hence, the market for simple solutions must be replaced by a market for complex solutions that require, according to him, a more complex system of knowledge and even cancellation of the market.

Taking into account his criticism of the concept of technological zones, the demand for complex knowledge and complex activities in conditions of regionalization does not mean regional technological development in the conditions of destruction, because it is impossible in these conditions, and should be project, and not prognostic, nature, so that within the project this "Character" was creative.

In other words, with the advent of regionalization, the demand for a more complex system of knowledge about the world is more connected, and the more complex (not divided) labor activity associated with this knowledge, not connected with financial market relations.

Actually, the very classical model of the economy, which Grigoriev is talking about, is the way to simplify the initially complex activity, with the subsequent complication of simplified components and their further separation. What is the growth principle of the existence of the division of labor system, created and stimulated by the financial system, the monetary part of which, according to it, carries in its abstract model, a kind of "token" character in resource management. At the same time, unlike the classical representation of political economy, the financial system contributing to this division precedes the industrial one, deciding in favor of the first dispute of the one and the other.

Hence, interesting preliminary conclusions concerning the present time follow. Given current assessments of the crisis and this logic, this means that from ten to several tens of years to come, timelessness must, or can, be replaced by the time of the formation of complex activities and their products (including production), which are non-market projects in relatively large planetary loci.

The non-market projects of the country or regional level included, for example, the construction of the Ivan the Great Belltower in Moscow and the Refectory of the Chamber in Solovki, the space program (in general) and the Martian project (in particular) in the USSR, the Apollo program and the Martian project in the USA, and LHC in the EU.

Another, not projected and not actually production in essence (but containing the lion's share of the production component), an activity where the demand for complex knowledge critically exceeds other types of today's activity, is medicine. In order to understand this, it is enough to be at least a little familiar with the topic; Moreover, it is useful to delve into the groups and posts of online communities of students of Russian medical institutes – the nature of replicas, demotivators, memes and other markers makes it clear how much highly-differentiated knowledge is required on one head – a natural computer that requires not only the storage of this knowledge, but and their management in the context of complex practices. In this sense, a personal computer for such a medical brain computer is only a tool that can solve the problem of control, incl. knowledge management.

And, by the way, in the same sense, cybernetics, to which the global political economy of the 1960s and 1970s came, began with physiocrats in the 17th and 18th centuries, and a modern personal computer is a symbol of financial reaganomics (as degenerate economic cybernetics) that led the management of public resources in a very different way ways – do not contradict each other.

It has already been written many times that the medical component is becoming increasingly important in modern weapon systems, and a whole series of issues that were previously resolved by military means are now being resolved by means, so to say, by medical statistical. In other words, if earlier the basis of high-tech development was the MilIC, today there are reasons to believe that this basis can be the medical and industrial complex (MedIC). Of course, various scenarios

are possible based on the principal opportunities of civilizational development and, first of all, on current problems of demand, including public demand for medical services and ways of providing it in key countries capable of global civilizational projects. However, if the world survives the expected catastrophe, the marked production accent is quite possible. In the most favorable case, this process can proceed according to Fuller as a global all-human change of the production technology "weaponry" on the "livingry" technology, including everything from agriculture and housing to the development of the Cosmos on the basis of resource-saving principles so pitifully realized today in European and American programs. And this is not an empty manilovism: these ideas were unofficially and semi-officially embraced by huge circles of natural-science communities in the world on the eve of the crisis of the 1970s. But there is another way: it is the total management of human society as a biomass, using complexity management technologies (already developed for a long time), where a separate life exists in a finely organized and rigid system of vitalistic determinants: value, regulatory, labor, consumer, educational and, of course, biomedical. You can disagree with this for any number of moral, technological or other reasons, questioning the attainability of this state, but for this today, however, funds are being sought for "humanitarian" and "social" technologies that, if these technologies are provided with a clumsy- in a very short time can be equipped with specific medical technologies capable of a completely new level of applied solutions (again, provided that the influential syvolapost does not act "in the old-fashioned way "And reduce the size of the world population for a long time proven methods).

One can not ignore the fact that the deepening of the division of labor, which has rested in the limits (which in some cases, apparently, is not recognized as limits of growth at all, but at the same time, growth continues to be sought), which constitutes a fundamental problem of neoconomics, is precisely one of the main (if not the main) causes of the problem of controllability by a very complex society and obscure (until now) personality structures, as well as other entities where the most complex is. And that this management can no longer simply be carried out by manufactory bureaucratic methods (for such management is already self-applicable, and therefore fraught with systemic collisions), for which, if we are not talking about civilizational reduction by the sixteenth century, we need to

machine control systems, successful experiments with what took place in the world in the same 1960s – 1970s. And that this machine was just designed, first of all, to overcome the growth model and, for a minute, completely excluded the approach to humanity as to "biomass". And today this machinization of management, which, incidentally, Marx and Smith could not really be thought of, should be considered in its perspective, from the point of view of the increment of biological reality, which is a cybernetic reality, an additional, new, factor of human-natural interaction, because Today such interaction is more unsustainable with ever increasing and frightening evidence. And attempts to talk about how to save this unviable, seeking, again, points of "growth" in the revision of the 300-year-old closing worldview project, which arose in its time, already in a system of sufficiently formed economic relations and scientific guidelines, are simply meaningless. Of course, today we have to act here by the method of more or less speculative hypotheses, but how ?! But such hypotheses have long been included in a set of acceptable means of cognition.

Be that as it may, under the privately projected expansion of medical technologies, according to the changing needs of society, the standard of scientificness will also change – let's call it "historical-clinical". The current dominant standard (not a paradigm, not a criterion for the demarcation of scientific knowledge from unscientific, but precisely the standard) is mathematical. What does it mean? This means that the description of the object and its states will be conducted in terms of a viable system and its model (in essence, in terms of "second-wave cybernetics"), while the characteristics of the formal computability of the domain or object in it will be of a private and auxiliary nature, how the computations performed by diagnostic systems in medicine are auxiliary. Moreover, rigorous work in such a standard will require a revision of the very concept of the model as a scientific concept, since its intuitive-paradigmatic roots are, in the final analysis, the satellites of the new European science in general. Based on this standard, knowledge will become more empirical and, so to speak, historical, anamnestic, and less – theoretical (which is, for the most part, the body of medical knowledge). If the continuity is maintained, the previous knowledge will be adapted to the new ones, while some of the former will be deproblematized.

Another question is the kind of social system that such a science will work on. Moreover, if "suddenly" she does not work for the market, which will be "canceled." In this case, the concept of "high" technology should be revised. Perhaps it should be about the ability of technology to provide a homeostasis system of a certain complexity, and in this will be its innovation, which is certainly not designed to mass-demand. And in this sense, in the world of technology, there can come a time of unique solutions of a very different scale of application. In any case, the possible mechanisms for financing such solutions aimed at ensuring the homeostasis of vital systems will be quite specific.

That is why the question arises about their historical source and ideological foundations, which, as my study shows, can be very significant, and touch upon a significant amount of paradigmatic attitudes, including scientific standards.

### **A few words about R.B.Fuller and other greats in the context of the ideas of the mechanics of Tensegrity**

Fuller's references are present throughout the book, but in his most concentrated and personal form his ideas are considered here, in the aspect of Tensegrity – the concept of the mechanics of tension systems. In many respects this is because in the "dissolved" form he was more present in the aspect of some general questions connected with his project for the return of metaphysics to positive science (perhaps the main program of his epistemological concept), whereas in the sense of Tensegrity he represents a portal from the thematic oikoumeny this book in the field of alternative systems and concepts of subject-technological sets (PTM's). The very way of talking about this is a separate topic, and tempts quite a lot, still naively thinking that only new technical inventions can solve all the problems of mankind, proclaiming the systems of social order secondary to them. Of course, this approach is a naive reduction, albeit a common one. In addition, as part of this discrepancy, as a rule, all metaphysical contexts and other contexts of the general plan in which technical inventions arose are excluded. Consideration of intra-world changes does not go beyond the sets of artifacts themselves and the "artifact-user" relationship. Meanwhile, it seems to me personally that humanity will move to a new level of being, not when it suddenly "discovers" mysterious and paradigmatic many incomprehensible technological inventions of Fuller or some other original inventors (Schauberger or Tesla, for example) ,

rather, to the order of natural reality, but when one learns to think and work everyday with a specific and hitherto unopened layer of socio-natural reality, where the conversation goes in terms of phases, descriptions of the state, fluctuations and response-additional event coincidences, condensations and rarefactions of events, where the components of denotative reality begin to perform an independent semiotic function, and do this not at the level of high, abstract, fragmentary, laboratory, physical and mathematical empiriches, but, again, at the level of the everyday and on the conformity of all three main spheres of government considered at the beginning of the book. This is a very slippery topic from the point of view of consistent thinking within the framework of science and technology, close to the supra-rational, which is why I am touching it at the very beginning of the book, and actually the things of the "quadrival" order are only here. For the inventions and discoveries in question about this order are only a more organic (and therefore effective) consequence of the more thoughtful and observant presence of man in nature, puzzled by the revision of the existing system of material reproduction and aimed at total improvement of the routines of the organization of reproduction work.

Thus, for example, the spasmodic catch-up development, as well as the "anomaly of capitalism" that neoeconomics says, can well be described as a phase transition of states that in some way realizes the principle of the transition of quantity to quality, which is also tied to the processes of social dynamics on a global scale, and on the resources of the planet itself, and on the potential of the human psychosome. However, within the framework of non-teaching, they are still unique phenomena: unexplained in their anomaly – for the second case, and controversial for real reproducibility – for the first and second. The same state transition is also the state of the social crisis; The nature of the cessation of the work of the commercial-financial capitalist machine neoeconomy can be understood and explained, and even in terms of explaining the alternatives to a rollback to previous systemic states, it has undoubted successes, for example, but is still filled with ambiguities. Иные же, говоря о «кризисе», произносят жалкую фразу о том, что «процесс пошел нелинейно». Yes, in the geometric foundations of the world there is nothing more fundamental than the line! At the same time, while denying "linearity", they refuse to see the jumps, not considering the latter as a means of mutual adaptation of the inner world. We do

not consider every day as a phase leap and psychological virtue, which is a factor of the qualitative difference in human labor according to the level of action, intensity and integrity of the perception of the process, although we often observe its manifestations in everyday life.

Since everything considered here is only an outline, the strokes to something little known, in so far as, addressing the reader, not to judge strictly. In addition, again: what physicists know on this account from the general theory of systems is not operationalized, and therefore has no basis for organized activity. After all, how these post-nonclassical categories control today is unproductive – above all, because all these miracle concepts are quite detached from everyday life, whereas about those times when they were part of it, we have very fragmentary, sometimes unreliable, information and guesswork. Postneoclassics simply do not dare or guess the beginning of observation, and also, at least in elementary forms, use the "being-inside" method of this process, immersing both individuals and social groups of different scale. Meanwhile, "random patterns" and "strange coincidences" in complex social and existential orders are also noted by many very sensible and completely unprepossessing people, but this topic does not get a move because of some deep, archaic, fear of being subjected to ridicule and ostracism. The same sphere in which the names of the "phase", "descriptions of states", "possible worlds", "probabilities", etc. become familiar already in the scientific environment, etc. things, already has its own, very bearded, history, perceived in terms of the discovery of the immutable truth, but there is little noticeable development in it because, as part of the natural science knowledge, in its "post-form" it was hastily created, without a historical retrospection is inscribed in the historically formed, and obviously curved, system of separation of scientific labor, and therefore can not be considered in an applied way. All this is a very interesting direction of researching the ways of being human in the Universe, but the basic and original ideas about its structure that were proposed by the "American Leonardo", which almost surpassed in its understanding, are the prolegomenon to it. The nature of mechanical systems and the possibilities of mechanical engineering of the Renaissance Leonardo.

The consideration of Fuller's ideas here will also be very logical after the medical topic, since not all representatives of the medical profession (and even some of its best representatives) know today that the mechanics of the human body are

predominantly subordinated to the "fundamental" principles of Tensegrity mechanics – although, incidentally, from Occasionally some things are cleverly sighted on this account. And, by the way, not all of them, and many others, know that the very concept of fundamentalism is deeply alien to this naturalistic concept of the interaction of mechanical forces.

On the one hand, the mechanics of tensioned Tensegrity systems created by Buckminster Fuller in co-authorship (and then still a commonwealth) with his student Kenneth Snelson can be considered as part of Synergetic Geometry, on the other hand, in the sense of an article with the same name – as an introduction, or prolegomenon, to her. And this is an introduction to geometry, carried out through representation in the basic concepts of mechanics, closed on fundamental physical relations.

All this is important today, since if we assume that cybernetics is the second bottom of the economy (undergoing an incredible crisis in the last, perhaps, 500-year history, beginning with the "long 16th century"), and the second bottom of cybernetics (primarily, of course, its "Second wave") is synergetics, then Tensegrity should be viewed as a very capacious, and very significant, closet-snack of the third bottom of the economy, claiming to raise humanity to the "ninth" sky. This "snug" originates in the mechanics of carrier systems, the first application of which is in architectural volumetric design. Therefore, it makes sense to mention the Tensegrity constructs in Russia.

One of the tallest of them, the Ostankino TV Tower, rose slightly above its own "seventh heaven", but, built in 1967 – during the period of the highest spread of synergistic and cybernetic ideas among the world's engineering and scientific minds in the 1960-70s. – survived, despite the fire of 2000, built in 1974, the Basmanny market, the improper exploitation of its designs, based, apparently, on the elementary ignorance and lack of understanding of the constructive principles of its owners, neglected, despite warnings, for the sake of safety gain, led to its collapse in 2006, resulting in human casualties (incidentally, a small geodesic dome, located in the center of the collapsed roof of this market, has remained stable). Before that, in 2004, the water park Transvaal Park, built in 2002, also collapsed, also with human casualties, including among children. There were many versions of what happened, including intentional sabotage. But this version

was quickly hushed up, getting rid of the suspicious part of the design and not really examining it, and slightly less than in everything, the architect N. Conchelli, whose doctoral thesis of 1977 "Accounting for initial imperfections and the accuracy control system for the erection of radial cable-stayed systems" by one of its names indicates a direct relation to Fuller precessional" wire wheel "structures. The question of the situation with this kind of construction in Russia still requires its detailed historical (recent-historical) clarification.

In connection with the question of who and what is to blame, special attention is also paid to the ambiguous creative relationship of Bucky Fuller with his student Kenneth Snelson, whose knowledge is required, for historical fairness, to call the Tensegrity structures (at least a number of them) the Fuller-Snelson structures.

Mentioning his relationship with Snelson, Fuller very much appreciates the giftedness of this man, although the relations between them seem to be still in a certain sense conflictual (Snelson believes that Fuller appropriated the idea of Tensegrity, but in his interviews and articles he gives his due his talents and inspiration) – certainly not by chance Fuller begins the topic of mechanics of tension systems with the question of patents for their structures. In this sense, the article "Tensegrity" looks as if not as an excuse, or as an attempt to give a strong justification for its own inventions and discoveries. Be that as it may, if we omit the fact that the moment of conflict between the two talents of the teacher and the student is quite typical of the life event so often encountered in the History of Science and Technology, which hardly needs additional examples, it should be noted that the intersection of their life paths had significant significance for each of them (incidentally, Snelson himself writes about this in some interviews with him). What is important here is that the artistic world view of Snelson, which still demonstrates in the brightest way the ability of art to be the paradigmatic foundation of scientific knowledge (I myself think that science is the art of knowing), has come into contact with Fuller's philosophical and technological worldview (quite alien to artistry, by the way – what is its full longgermanizedwordformation, ornate-poetic language), which is expressed in principle of "generalized local information-gathering and local problem-solving in support of the integrity of eternal regeneration" ("Grunch of Giants"), which certainly took place at least as a pathos at the time of meeting with Snelson.

When Fuller talks about the Tensegrity union with the Synergetic geometry, it is very similar to the connection of something "general" with something "special" (see Chapter 4 for the fourth, fifth and sixth dimensions). In this sense, the interesting point is that Fuller mentions his recommendation to K. Snelson to obtain a degree in nuclear physics, and seems to make a somewhat ironic comment about the fact that Snelson returned from this "boring" theme to art (and the aesthetic allusions of the Synergetic Geometry Fuller, in his own words, tried to avoid). What, for the sake of justice, can only testify to the student's inclination, like his professor, to immediately explore the nature of things with fresh creative eyes, following his insight, without spending on conformism within the scientific establishment. However, Snelson is known not only as one of the co-authors of the Tensegrity ideas, which gave Fuller food for the mind with a bold guess, but also as the author of the original model of atomic structures that stem from an artistic worldview corresponding to the moods of the constructivist environment of the first half of the 20th century. In this sense, the relations of engineering and artistic order, separated as preferences for individuals, would be very interesting to compare with the conditions of Vladimir Shukhov's creativity, when his elegant engineering designs were not willing to recognize other figures of architectural art (these and other things are in small, but a detailed book of the researcher of the Russian avant-garde Khan-Magomedov, dedicated to Shukhov, and my comparison of the "American Leonardo" with the "Russian Edison" is given below).

Indeed, Tensegrity structures can be seen before Fuller and Snelson from the Soviet avant-garde artist K. Iogansen in 1921, long before Fuller's meeting with Snelson; as well as octet truss – the type of construction to which A. Bell contributed, in addition to Fuller, to the invention; Also, before Fuller, the case of constructing a triangular spherical structure is known. Well, probably, the bicycle "wire wheel" was not invented by Fuller. The question, however, is, in what cognitive projects did all these engineering things arise. Fuller, perhaps, was the only one whose explanation of their nature was of a total metaphysical nature, and extended to the entire universe. In addition, it was Fuller who was the founder of the ideas of applying these engineering capabilities to solve the functional tasks of human survival based on the principles of resource saving, the most effective life and energy supply, as he is talking about in his other works. In

any case, other statements of authorship of this kind of research and practical programs having such a broad humanitarian message, complementing the engineering and the return of metaphysics to science in the twentieth century, are not known to me.

All these conflicting and associative connections show that Fuller did not live in a cultural vacuum, and his work was probably part of (and very significant) crystallization of those ideas that, as they say, are soaring in the air, which resulted from a certain degree of self-denial of one rights. That is why it is logical now to turn to Fuller's relations with other authors whose ideas seem to me personally surprisingly adequately combined with his own engineering ideas, and who had the same or almost the same universal human message as his. And to present these relations at least fluently.

Since the adequacy of such a combination seems to be neither much nor little, a way out to the fundamentals of a fundamentally new system of ideas about the surrounding nature with very curious practical applications, the ones following directly and looking very promising.

### **Fuller and others**

Precisely because Fuller's ideas are very much in tune with the ideas of other authors, I had to carefully read the shades of the meaning of the words he used, or connotations.

First of all, it should be noted that the word "tension" is often translated as "potential" or "stress" (especially when it comes to prestressed constructions), but this is not entirely accurate, because in this and other works Fuller is talking about the binary nature of mechanical categories, as "stress-compression", "inward-outward", etc., while appealing to the universality of such a binary (see, for example, his postulate "Unity is two" from Volume 1 of his Synergetics). Also, Fuller has important shades of meaning: for example, some common, simple and polysemantic words, in order to convey the poetic rhythm of Fuller's text, sometimes had to be translated with a compound word – for example, "patterns" as "structuretracery" ("структуроузоры"). Also sometimes, following the fuller's marine metaphor, often found in his works, I use the word "islandised" ("островнированный") instead of "isolated" to translate "islanded", and in other cases I also use "inventguage" of this kind. The expression "structural systems" I

intentionally translate just as "structural ", and not "constructive", in view of the essential importance of such a translation. Of course, other systems may have different structural forms, but in this case, what is important in Fuller is that the stability of the structures under consideration is just a universal systemic character; In his discourse, it is important that the remarkable fact that structures with fully hinged joints can form a stable structure. This fact of mechanics struck him from the moment when, as he asserts in Tensegrity, Snelson brought him in 1948 an octahedral guyor design.

However, Fuller in the field of inventions quite clearly develops what he calls his own and universal.

In explaining to Figure 14 of the article "Tensegrity" when it comes to replacing compression elements by tension structures, the notion of scale is introduced into circulation, which opens up the fractal discourse that is so widespread today in superficial judgments about synergetic phenomena.

Of course, a cursory enumeration of the authors presented below comes with an emphasis on the "American Leonardo" and is timed to the article of the latter. However, all these outstanding personalities are quite and highly interesting in comparison with each other and without regard to Fuller, which can already be seen from the text below, for example, when it comes to Schauberger with his ideas of vortices, very well falling on analogous ideas of the Tesla vortex movement, or ideas of the Austrian forester about the vacuum, perfectly combined with Fuller's ideas about sparseness-extension. In any case, the names given below, associated with the Fuller name, are likely to be able to represent, at least, an essential part (if not the foundation) of the paradigm of the new science, replacing the scientific notions of the classical and non-classical epochs. But how much it will be in demand, inscribed in the socio-economic processes, will be their engine and the factor of existence – time will tell.

### **Fuller and Tesla**

Experiment once conducted by Fuller with air area in the oil thicker, from which formed the Platonic shapes due to vibration, is an excellent model of what probably very clearly reproduces the processes similar to those that create discovered by astronomers at the beginning of the XXI century a giant hexagon on Saturn's south pole (nature which immediately rushed to call the unexplained,

despite the presence of experimental precedent), correlates well with the ideas of Tesla's cosmic bodies as sparse or bubbles in the cosmic ether. With this setting Tesla associated representation of the Earth as an acoustic resonance conductor, propagation speed within the Earth, as well as the idea of a unipolar dynamo as electromagnetic model of the Earth.

Another reason why Tesla and Fuller are compatible is the idea of the universal significance of spiral-vortex structures in the universe. Fuller's understanding of triangles as spiral structures, in fact, on the one hand, and the countless spirals of Tesla's coils, invariably following the level with the ideas of the world's ethereal vortices shared by him, on the other. Here the most interesting, perhaps, is how these ideas of both greats about spirals are able to combine in a single praxis; otherwise, such a combination must be synergistic.

Another point in which Fuller touches Descartes and, through him, with Tesla (the former hardened Cartesian who actually devoted his life to the realization of Cartesian physics, "scientifically forbidden", unlike Cartesian mathematics, in the modern academic milieu) is the theme of the sum of the angles tetrahedron, and the fact that Descartes did not associate the angle at  $720^\circ$  with the quantum of energy and the tetrahedral structure of this quantum.

In another case, when describing the properties of cuboctahedra in terms of electromagnetism, Fuller directly refers to a phenomenon known as the skin effect discovered in his time by Tesla.

Another point that brings Tesla and Fuller closer together is the concept of harmonic, used by both authors, but each for their subject. Thus, Tesla turned to him to explain the fluctuating and frequency phenomena in physics, in Fuller's book 1 of his Synergetics, he meets in explaining the essence of the structure in the thesis 610.30 (chapter "Structural Harmonics"), and is associated with the tetra-octa- icosahedron to the octave as the structural correspondences of the micro, medial and macrocosm formed by their geometric multiplicity of 3, 4, and 5 equilateral triangles with one common vertex forming the volume (whereas 6 such triangles form a plane). Taking into account the Fuller experiment mentioned above with the vibration of a bubble in the thickness of the oil, the harmonic as the basis for the convergence of the views of Tesla and Fuller becomes even more evident.

In addition to all of the above, Fuller's argument for increasing the frequency of the fibers of tensegrity structures, their power as the number increases, the proportions of the fiber parameters in the clusters forming the tension elements, as well as the significance of the surface mechanical effects of the triangular perforated shell, especially in the chapter "Geodesic Tensegrity and Earth Satellites" , strongly recalls what Tesla said about the skin effect and high frequencies, combined with the high electrical voltage with which he worked. Only if Tesla worked primarily with electrical engineering, and explained the electrical effects in the universe through mechanical models, then Fuller – mainly with mechanical technology, through mechanical models, coupled with the general principles of synergetic geometry, directly explicating the fundamental principles of the device of universal mechanics. It is noteworthy that in English the electrical voltage is translated both as "electric pressure" and as "electric tension"; so, if the electrical tension is treated exactly as "tension", then, together with all other similarities of the discourses of Fuller and Tesla, we get an important aspect of the orientation of the theslov's understanding of the electrical "tension" of exactly how "electric tension". Both Fuller and Tesla are scientists of visual-geometric perception in the sense of A. Poincaré (who divides mathematicians into, roughly speaking, geometrically and algebraically oriented thinkers in his book "On Science"), but the nature of the visual representation of his subjects, with all their similarity intuitions, they have different. Perhaps, this is dictated by the difference in the objects: mechanical relations are easier to present in the specifics, the relations in the world of electromagnetic phenomena are always more abstract, although the electrical devices Tesla, in his own words, were able to represent with utmost clarity: approximately so he imagined an alternating current motor , when he quoted Faust. And approximately so, probably, Fulleru saw the geodesic sphere when he went drowning. And here one more hypothesis-hypothesis arises: synergetic and tensegrity structures should be the best visual mechanical models of electromagnetic phenomena – in any case, those who thought and reproduced Tesla. Reproduction of these models should lead to obtaining effects and understanding of the possibilities of electromagnetism. On the other hand, electrical engineering on the basis of Tesla's paradigmatic installations, ascending to the physical philosophy of Descartes, should be expanded and applied in an applied manner, being the basis

of electric power as such, what Fuller and his disciples at the universal structural level.

In the general case, the significant difference between Fuller and Tesla is that if Tesla in his works and diaries explicitly and bluntly claimed things that today would seem to the scientific establishment to be complete charlatanry, having the powerful philosophical basis of Cartesian physics, then Fuller, unlike he had no such basis, because he relied on his own philosophical constructions within his own project of the return of metaphysics to science, and therefore persistently correlated his discoveries and innovations with the already known ones by the great ones. In this, perhaps, one of the significant reasons why in his works you can often meet the game with words. So, for example, when it comes to Newton's gravity in Tensegrity, it uses the word "tension" rather in the meaning of stress, although it is usually used in "tensegrity" meaning (tension in itself).

These subtleties are important for understanding the connection between Fuller's ideas and the ideas of another natural-nonconformist, Victor Schauburger, whose pair of gravity-levitation categories falls well on the Fuller difference between compression and stretching, not to mention other moments. However, Schauburger did not very much appreciate the center of modern physics on gravity and not only did not relate to Newton, but even joked about him on this score.

### **Fuller and Schauburger**

Today, the legacy of Victor Schauburger is most actively and creatively studied at the Technical University of Graz (Austria), as well as at the Technical University of Braunschweig (Germany), Malmö State University (Sweden) and several scientific centers in the USA. The fact that Schauburger is also a thinker of visually geometric, non-algebraic perception is eloquently evidenced by his phrase "we need not the science of formulas but the science of forms," and the completely corresponding activity of discretion of the essential geometric forms of living nature, and creation in accordance with their features of machines, organically combining, according to his idea, the biology of mechanics with the biology of electromagnetism.

While Schauburger talked about the need to replace the explosive dynamics of technical means, the dynamics of expansion and high temperature gradient, on

implosive, or dynamics of compression and low temperature gradient, for a radical improvement of energy and engines, Fuller spoke of replacing continuous compression by discontinuous, combined with continuous extension, and the rejection of the idea of continuous compression in general, with reference to load-bearing systems and force distribution structures, but not to energy and motion generation systems. As Fuller and Shukhov (see below), Schauberger spoke of resource saving and, like Fuller, his inventions and structures bear the invariably and claimed biological (or rather, biodimensional) character.

Meanwhile, despite the fact that in the energy sector Schauberger welcomed the compression, which in the region of carrier systems in a special way (but, of course, not completely), Fuller denied, and for that, and for another author compression-tension – on the one hand, and compression -extension-on the other hand, represented a dialectical unity, but for each in its own system of concepts. It seems possible to combine these systems.

First of all, it is necessary to interpret these authors without considering their positions as mutually contradictory. Indeed, Schauberger's explosion is related precisely to the pressure causing compression, of which Fuller writes about the total dominance in mechanics, while the implosion associated with Schauberger with the concept of biological vacuum, sparsity, is precisely due to this circumstance that can be interpreted through tension, and therefore also expression "Biological vacuum" – through the fuller's concept of integrity of tension, or tensegrity. The possibility of such an interpretation is unequivocally indicated by the example with the nature of the lift of the aircraft, quoted by Fuller in the same article by Tensegrity. A natural, or biological, vacuum, with its colossal power that Schauberger so closely engaged in, can be considered as a tension medium. It is interesting to consider this idea from the wire wheel's point of view for additional ideas of vacuum engineering, especially in that part where it is a question of twists and vortex flows of systems that relate centrifugal motion to centripetal motion. On the other hand, the idea of black holes as ethereal bubbles, rather than superdense objects, which follows directly from the theses of the world ether, is very interesting to consider, again, from the position of the world vacuum as the tension of the world environment, in the aspect of the precessional model of the same wire wheel , since supermassive black holes, as

follows from modern physical cosmology, are the nuclei of precessionally structured galaxies.

Here it is appropriate to recall the famous phrase of Fuller that the universe is islands of compression in the ocean of expansion. It is known that such islets have the largest temperature gradient (one of the key concepts of Schauberger), whereas the ocean is the smallest, and that this does not mean the absence of energy in it, on the contrary, it is very abundant. It is in this last aspect, the difference in energy and gradient, that it would be interesting to consider what Schauberger meant by the difference in heat and temperature, and also, by the way, what Tesla meant by the ubiquity of energy in the world space, so much worked with voltage and high frequencies. Most likely, this is precisely the energy of sparseness and tension, which, according to Tesla, can be converted directly from space in the form of electromagnetic energy. And again, it will be appropriate to recall Schauberger, who spoke about the biological nature of magnetism, or about biomagnetic phenomena.

### **Fuller and Shukhov**

Their creative directions are related to the commonality of engineering principles: to achieve maximum effect with minimal labor and capital expenditure. However, in Fuller this principle has not only engineering or vital, but also universal significance. Of course, not to mention the widely known kinship of interests to what is called a wide-span net shell in volumetric design.

Meanwhile, a separate issue in the life of Fuller is the question of how much Shukhov influenced him. In the United States in the first third of the 20th century, the "Russian Edison" Shukhov was accurately known, especially with his mesh hyperboloids installed as masts on American warships of those years – just about that time Fuller was a sailor, in his works there are many references to the naval theme, connected with this period of his life, and therefore, at least this circumstance indicates that Shukhov's orders hardly passed his inquisitive eye. It is also unknown how Fuller was familiar with the "Oval Pavilion" (or "Rotunda Pavilion") of Shukhov, built in 1896 for the All-Russian Exhibition in Nizhny Novgorod, and there appeared the first hyperboloid tower (from where, perhaps, it "swam" to Americans), mesh domes that were built by the "Russian Edison" in 1897 at the Vyksa Metallurgical Plant in the Nizhny Novgorod Region, and its

linear dome landing stages above the GUM, the Pushkin Museum, the "Kievsky Railway Station" and the Metropol Hotel in Moscow. Neither in Synergetics, nor in Tensegrity, did I find references to Shukhov's inventions. Whatever it was, but today the most famous author who openly gives due credit in his works to both Shukhov and Fuller is Norman Foster, who unites them in his work. The movement of the Russian engineer's thought aside from the principle of continuous-compression is also indicated by the fact that the tower on Shabolovka was fundamentally built without a foundation.

It is possible that Fuller knew about Shukhov, but a number of circumstances related to the appropriation of Shukhov cracking as one of his "five oil cases" by the oil Grunch, at the beginning of the 20th century, did not allow Fuller to mention him directly – as Fuller himself was not mentioned by many outstanding authors, unambiguously hinting at the authorship of his ideas.

### **Fuller and Okhitovich**

The artist of the Russian avant-garde, the Marxist Mikhail Okhitovich (who can be judged more fully by one more book by Khan-Magomedov, dedicated to him), who is undeservedly still unknown to the present day, brings together with Fuller not only that this sociologist was the originator of the tradition of desurbanism, whose resource-saving and optimizing ideas in due time even received an economic settlement justification in the Soviet Gosplan and were caused by difficulties with construction materials that the Soviet Republic experienced the first years after the Civil and World War II (with and across Is Shuhov -.., even when the original idea of the order of 300 m radio masts its actual length of about 150 m and at these times the sample looks efficiency) and were subsequently received innovators "one-storey America". Okhitovich was one of the first to propose the idea of a mobile "living apparatus", with a whole line – from a single cell and cell for one family to mobile-module dwellings for several families and art communes of different generalities. True, on the basis of rectangular solutions, rather than rounded or triangular, on which Fuller made a special accent. At the same time, Okhitovich was almost the first in the world to use wood chipboards as a resource-saving technology for creating materials, primarily for external house-building, rather than furniture, panels that were particularly resistant to the external environment. But the most important thing, perhaps, is that Okhitovich and Fuller bring together his proposal for the actual geodetic

organization of the Soviet Union's road network consisting of equilateral triangles with an edge side of 25 km, an enterprise at the center of each triangle creating a uniform production and logistics system with rational use of ecological environment. It is not known how much Fuller was also familiar with Okhitovich's ideas, or Okhitovich with Fuller's ideas, but there is evidence that both the optimization of Dymaxion Map mapping and Okhitovich's organizational and infrastructure offer, with their obvious, semantic difference, have a single common -sense base. All this – without regard to the fact that urban issues related to the management of global processes, later became the object of analysis by means of biocybernetics.

### **Fuller and Marx**

Despite the fact that Fuller gave priority to technology over the social transformations of life, the pathos of his ideas seems to be consonant with the pathos of Marx's ideas. It is the difference of their ideas that confirms the unity of pathos. In fact, Fuller proclaims the international unity of the world, bringing to it the essential, natural-philosophical-monistic, justification. What did not Marx do, working in the field of exclusively socio-economic issues, only correlating with things of a metaphysical order (Fuller operates with the ultimate universals, without leaving, however, the field of engineering praxis). For Fuller, internationality emerges as the task of humanistic globalism, connected with the problem of matching the most fundamental natural principles. The essence of alienation in him is connected with super-specialization, irrespective of whether it arose as a result of the exploitation and development of production relations. In this sense it would be very interesting to review the re-specialization from the standpoint of Neoeconomics, a research program for the revision of the concepts of economics for the entire period of its history, launched by the economist O.V. Grigoriev, one of the key concepts is the deepening of the division of labor (in general, this program is built on criticism of the ideas of neoclassicists – on the one hand, and of the Austrian school – on the other) and the interaction of reproductive circuits based on this division. Such an examination would be all the more interesting because, as mentioned above and below, Fuller's ideas are the second bottom of cybernetics of the second wave, and Grigoriev is an expert in economic cybernetics. In addition, an attempt to consider the relations of reproductive contours as components of a single polyversum of synergistically

interacting wholes may possibly allow us to outline the reasons for the derivation of these relations in a more constructive logic existing in addition to the logic of "food chains".

Also Marx and Fuller brings together, in addition to the mentioned Okhitovich, the cyberneticist Stafford Beer – a socialist scientist who implemented the Cybersyn project in Chile in the spirit of Fuller's ideas. And, in this sense, Beer not only connects, but also radically breeds Marx and Fuller, since the author of Capital could not conceive of industrialization of systems of management of social processes after the industrialization of production systems, and therefore could not say anything about such industrialization.

### **Fuller and Beer**

There are no direct references to Fuller in S. Bier's book "The Brain of a Firm", but also the "Synthetic" regulatory principle, and the hexagonal advisory room, and many other things unequivocally point to the cornerstone, and not simply the essential, place of synergistic ideas in the cybernetic project. Fuller's and Beer's relations are most thoroughly described in my article "Situational centers and non-centered control systems in a historical context". It hardly makes sense here to add anything to what was said there – one can only repeat that, starting from the 2H of the 20th century, the history of the management of resources and the relations of human communities inhabiting the Earth has developed under the auspices of Fuller's ideas, even if they are perverted and carefully obscured by origin those who, on the demand of themselves and the generations of their clans, took for service only the engineering pathos of these ideas, separating it from the humanistic and philosophical.

### **Fuller and Korolev**

Well, others will say, he has brought here all who can! And the Korolev there too. Let the superficial judgments remain on the conscience of such readers. I will say that a comparison of these individuals is possible on the following grounds. It's not just that in the beginning, slightly inside and at the end of "Tensegrity", Fuller talks about the applicability of geodetic structures in space technologies; and not only in the humanistic thesis of Fuller that the provision of humanity from top to bottom, and especially at the domestic level, should reach the "aerospace level of technologies"; and not only that the universal consciousness of Fuller is

compatible with the cosmic ideas of the Korolev; and, probably, not only that the "prestressed" tower was built on the street of the Korolev 's name (although the coincidence is noteworthy, is it?). The fact is that Korolev sought to Mars, which required an autonomous system for the reproduction of life on board, and Fuller said a lot of things about regenerative structures – from star systems and galaxies to biological systems, while referring to the results of his engineering activities; at the end of "Tensegrity" he speaks directly about “regenerative cycles of complementary chemical event patterning governing local exchange balancing of oxygen and carbon molecules alternately favorable to respective metabolic environments of animals and vegetables” (chapter "Technological breakthrough").

This was said in 1961, that is, just a few years before when the experimental complex of BIOS was created on the basis of the Institute of Biophysics at the Karsanoyar Institute for the life-support of the flight to the red planet in the USSR, during which, between 1964 and 1968, experiments were conducted on the management of a closed ecosystem, and from 1972 experiments were begun with autonomous survival in a closed biosystem of crews of people. It should be noted that (according to a "strange coincidence") it was at this time in distant Chile that Stafford Beer built his project on the basis of the ideas of bio-cybernetic management, only the eco-nomics of a particular country, and not the ecology of a particular taken, closed biosphere. What happened to the Beerov project is well known, with the applicability of the Krasnoyarsk project for its intended purpose, not everything was smooth either, but unlike the "economic" project and other "biosphere" projects, the project was successful – the crew was able to stay in the ecosystem on about 300 square meters, more than a year. Today the laboratory is called the International Center for Closed Ecological Systems. Around the center today, the European Space Agency (ESA) is grazing; the well-known project "Mars-500" was launched taking into account the Krasnoyarsk developments. Of course, the Americans, who independently embodied the dreams of the Korolev in life, undoubtedly got their share of the scientific gesheft, the most densely populated of all earthmen present on Mars with their missions, exciting the imagination with the amazing discoveries of water and heaps of artifacts.

The BIOS project has been unbeaten for decades, and with it, directly or indirectly, several noteworthy circumstances are worth mentioning in this

commentary. First of all, we tried to repeat it in E. Bass a Biosphere-2 project by 1.5 hectares in the period 1991-94. According to one version, the project number 2 was received because the name Biosphere-1 had an American pavilion at an exhibition in Montreal in 1967, represented by nothing more than a huge geodetic dome of Fuller. In turn, the closed building of the ecosystem complex was underlined in the form of a remarkable architecture of geodetic domes with large triangular faces, and the walls of huge greenhouses represented the octet truss of Bell-Fuller in the form of South American pyramids. It is also known that today the "lite" analogue of Biosphere-2 can be considered a greenhouse park Eden built in 2001 in the British Cornwall.

The BIOS itself is interesting because its co-leaders – academicians of the Russian Academy of Sciences I. Gitelzon and I. Terskov – had scientific achievements in the field of hematology besides scientific interests in ecosystem management. Here I allow myself a little fantasy. The well-known predecessor of these scientists, combining interest in self-organization with interest in hematology, was Bogdanov – "forerunner of cybernetics", the author of "universal organizational science" of tectology, whose ideas, apparently, were perceived and carried through the life of Soviet academicians, culminating in his successful project. Like Fuller, Bogdanov was a monist, and the general humanistic pathos of his reasoning was also largely in tune with the pathos of Fuller. However, due to known systemic political reasons, tectological ideas and their embodiment turned out to be secondary roles in their application – an important and complex, but still narrowly technological, not allowed, as well as in the South American, fuller-produced case, to the level of management of social and economic processes. Well, now such an incarnation in the first roles these ideas receive from the forces that have a different from the original general humanistic pathos.

### **My own considerations in the context of Fuller's ideas**

The development of Fuller's idea of triangles as spirals created by the same line can also be considered my attempt to rethink the angle as a geometric phenomenon that was riddled even before I became acquainted with his "Synergetics." The motivation for this was my refusal to recognize the point as the primary homometric body as it appears in Euclid, for as such I considered, following some Cartesian intuitions, a line, not necessarily a straight line. In addition, this idea of angles seemed interesting to me from the point of view of

Lobachevsky's mathematics. What would be my amazement when, about ten years later, I read about such things in Fuller's works – in the article "Tensegrity", and before that – in one of the volumes of his "Synergetics".

An interesting consequence of understanding the angle as a loop for me was that the loop, being the beginning of the spiral, is a spring in the physico-mechanical sense, and the fact that the geometrical explications of the angle as loops lead to the creation of an interesting mechanical toy that, at first glance, the problem of the end connections of the form-active bearing systems (in essence, Tensegrity), which, unlike the vector-based (in effect, geodesic), have a somewhat different mechanical nature and, in the opinion of Heino Engel, who introduced such names for them, I lyayutsya primary idea of space exploration by man. By the way, Engel's work "Load-Bearing Systems" seems to be still underestimated for the reason that it is an attempt by means of strict philosophical typologization of the foundations of carrier systems (quite in the spirit of Fuller) to perceive the productive possibilities of both tension structures and compression structures, in the logic of the deployment of their constructive complexity, carried out in the same way in the form of an "atlas of machines" – unique on the XX-n. XXI centuries. genre of technical literature. In this "atlas" the names of Fuller and Snelson, unfortunately, do not appear, but anyone familiar with the topic, it becomes obvious under what and whose subjects Engel talks.

With the intuition of a corner as a loop, it is also coherent that if the abstraction of any such loop is understood as a point, then this can be an abstraction of a different entity, for a loop can be. both simple and complex, that is, a configuration of several loops, including super-trained and counter-directed.

However, the loop is mathematically not only an essential explication of the "point" of the angle and the projective form of a mechanical spring spiral, but also a degenerate case of a graph. And, if the geometry of logic is graphs, which I wrote about in the article-hypothesis "The geometry of logic as an opportunity," published in issue 7 of the collection "Proceedings of the members of the Russian Philosophical Society" for 2004 (some of which I would revise today, that they managed to become a common place, and to some – returned), then the logic of the geometry itself is vectorial Fuller structures (if, again, do not consider his phrase "triangle is a spiral and a single energy event" in Chapter 511.00 "Energy

Event" 1 "Synergetics"). Of course, geometry itself is logical, for it is a way of representing the essences of the math, the basis of which is this or that logic. However, the logic of geometry itself, taken as a natural science, is synergetics, which represents geometry as the metaphysics of mechanics, and also as the structuralism of electromagnetic phenomena, which is important given the fuller postulate of "energy has shape".

### **Commentary on the book "Grunch of Giants" as a Will of the Fuller to Humanity**

If the text offered to the reader was not dated 1983 and related to the crisis issues of 1981, if his authorship was not related to the person who received the epithet "American Leonardo", today he would most likely have made the impression of "revelations" of the next "suddenly" the neo-liberal economist, who decided to make a name for himself in a highly popular and already wiped-out topic of "analyzing the causes of the 2008 economic crisis." However, due to the fact that the book "Grunch of Giants" was written by Richard Buckminster Fuller, the direct unambiguous task of which over his more than 80-year-old life was a systematic and constructive development of means and ways to ensure the well-being of all mankind, and that the state of the corporate economy outlined in it for 1983 sounds extremely relevant in the period of the economic crisis that has been rumbling since 2008, making this book extremely interesting and requiring the most serious attention. First of all, if only because Fuller, unlike many adherents of Reaganomics and financial capitalism, had obvious productivity in achieving his, completely non-financial goals, recognizing the priority of the real sector and working, in essence, in it.

Its key thesis, stated in the book, says that on the planet there are enough means to sustain the life of all people and every person, at an extremely high standard of living, unthinkable in historical science, and in a time when technologically it became possible, imperceptibly for all came about somewhere in the 1970s. However, for this transition to a new state, it is required to reorient mankind from the production of so-called "weaponry" to "livingry". Fuller himself does not give the name of this reorientation, but, in my opinion, the most adequate name for it would be a "technosocial paradigm".

It should be noted that, unlike the world's threats to the economic crisis of the "zero" years of the 21st century, in the time of confrontation between the two

world-building systems, when the book "Grunch of Giants" was written, the threat of mass nuclear annihilation was quite perceptible – it was she, and not "terrorism" was the main subject of rhetoric on the part of the USSR, the US and all the rest, and memories of the anticipation of a nuclear apocalypse related to the Caribbean crisis are very fresh in the mass consciousness – something that is currently not remembered – at least in Russia. In addition, the urgency of the military-nuclear security of the two opposing political systems was supplemented by the economic crisis of the eighties, and at the time of writing the book, mankind did not yet know the credit of pumping mass demand, neither the "Internet economy" with its dotcoms, nor the crushing of the real sector with inflated virtual- financial bubbles. All this was only just beginning, and some, many, many moments of this beginning Fuller could be anticipated, indicating the reasons, which are being talked about louder today. But not to see directly – all that is known today from the standpoint of the 30-year history of the victorious procession of the "computer age", inspired by the dogmas of the neoliberal economy. And indicate the direction of the movement according to his (to date – universally recognized) multi-decade works. And to publish a book in the year of his own death, which, in the aggregate of all these circumstances, makes it a testament to humanity, valuable, in addition, in it, in the abstract form, listed, inventions and significant moments of the worldview of Fuller, are inscribed in the real historical and economic context.

An important role in the author's technological views is played by the category of instruments that have both artificial, artefactual, and natural expressions, and therefore, in essence, do not represent a fundamental opposition of the artificial and natural. In this sense, the author of the term "synergetics" is extremely bionic. Despite the fact that Fuller directly speaks about the ambivalence of using tools, both for weaponsry purposes and for constructive work, he radically diverges these goals at the level of the global economy and the common tasks of the "project of mankind" in the "Scenario Universe". Of course, since the book is dated in 1983, Fuller could not say anything about the "grins of giants" unfolded about such an aspect, as the trend of a simple reduction of a managed socio-anthropological substratum to its more primitive states, through the reduction of the entire social sphere, the replacement of the cultural level with cultural waste and mutual cultural dissolution. Indeed, some of Fuller's theses are forced to

crumble – like his ideas of the world government and the rejection of the 150 nations-nations "pulling the blanket upon themselves." From the position of the present day, these ideas are really floundering, because they are adopted by the "giants" they criticize. However, it is unlikely that Fuller had in mind or could have foreseen such an embodiment of his ideas in a multiculturalism that mingles with all the whole Frankenstein, against the backdrop of even more intensively making money out of nothing, the supranationals that are parasitizing the entire humanity, adaptively changing the character of their gigantism. In this sense, Fuller's ideas are of particular interest in the context of the concepts of neonomadism and the world-system approach of E. Wallerstein and other authors. This consideration is yet to be implemented.

Fuller could not see specific investments in social and network software, cyber weapons, electronic total control means, color revolutions and other high hume things – he just did not have time to become a contemporary of these technologies and related phenomena. I wonder what he would say about them, how would he put his views into his system?

Sometimes it seems that Fuller intentionally does not call things by their proper names, speaking in the spirit of "look what they did to the once-free people (the US), not engaged in socialism!". Whatever the case, his position can not be considered insincere, since the pathos of his statements is entirely directed at a number of very concrete things that explain and, in his opinion, the crucial problems of the ability of people to manage on the planet Earth. It should be noted once again that these things were forged and crystallized in his mind throughout almost the entire XX century, whose contemporary he was.

Fuller criticizes the artifacts of "pipe-and-wire communications" as a means of exploiting many by few. He reveals this topic when he talks about the formation of the economic empire of J.P. Morgan. At the same time, however, he surprisingly does not mention the role of Nikola Tesla in this process. Such a thing can be forgivable to anyone, but not to Fuller, and is a vivid example of how eloquent the silence of a topic can be. Somehow I can not believe that Fuller did not say anything in his book about Tesla by ignorance, although, of course, one can object that his theme was Morgan's role in the US economy during the Great Depression, and this is a slightly different subject. And, nevertheless, it is Fuller

that focuses on the invention of artifacts, and those of them that underlie the well-being of Morgan are in their huge share tied to the inventions of Tesla. In the context of Morgan Fuller only once indirectly mentions Edison. And that's all! No mention of the famous "war of currents". The man whose ideas formed the basis of many postulates of cybernetics of the "second wave" that formed the computer era simply could not help knowing about Tesla, who invented the radio and first put forward the idea of the Internet many decades before the World Wide Web. Why did Fuller say nothing about him? Let's leave this question open.

The emphasis on artifacts and real goods, as well as his criticism of monetarist economic values, unambiguously point to Fuller as a supporter of the political economy rising to physiocrats, and the last thesis of his book, as well as the assessment of the role of religion in the establishment of royal power, is on the Protestant character of his worldview. But this perception of the world is very specific. This, if you like, is a Protestant ethic that is not aimed at making money, which for other specialists probably will seem strange. The specificity of such views is that they are by no means the embodiment of the spirit of de-Christianized capitalism. If you like, its Protestantism is largely socialist. And in this connection, his attitude to technology. In contrast to today's Russian experts on economic crises that believe the end, with the end of capitalism immanently inherent in scientific and technological progress, Fuller considers industrial and technological transformations inherently inherent in the realities of the social and natural order, by virtue of which – directly determining the type of economic system and, moreover, being an essential basis for the transition to a qualitatively new social state, in contrast to the production relations invariably conditioned by oizvodstvennymi costs that, as technology advances, at a certain stage are minimized to the limit. So the realized efficiency of production or labor productivity, within the framework of a more general, metaphysical concept, is called by Fuller "ephemerization". Since this concept requires a separate consideration, there is no need to dwell on it in detail here. It should only be noted that ephemerization, as the process of gradual production of the largest with the least expenditure, for its fullest implementation requires, according to Fuller, only the destruction of the profit-oriented corporate system of social relations, and presupposes, according to his logic, the possibility of gradual transfer of these technologies to personal and family levels not only consumption,

but also, at a certain stage, and production. What, in turn, raises the question of the forms of a producing society in this way, Fuller, however, does not give a detailed picture of it in this book. Whether it will be 3D printers, the cultivation of some hydroponic food (or, perhaps, even artifacts), nanoscale, bio-integrated life-support systems – is unknown, they were not discussed in Fuller's time, at any rate, directly and in applied meaning. This is beyond the scope of its consideration. As well as the hypothesis about whether the corporations will not want to gain control over the world, ready for such freedom and to such production. In other words, Fuller does not consider the pure metaphysics of power, for power over people for him is rather an object of clumsy and wild social states, rather than a complex and inalienable phenomenon of human nature.

He also, unlike the current neocons, does not consider technology and "Scientific and Technical Progress" as an inevitable companion of capitalism, which must end with the end of the latter. He speaks about technology and technology in the aspect of human-instrumental instrumental unity based on mathematical and metaphysical principles, on the preservation and revival of the cognitive dignity of man through the return of metaphysics to science.

The book is important in that it allows us to see some perspective on the solution of almost the most fundamental problems of our time, and if the medicine offered by the famous American inventor seems strange to somebody – well, at any rate, the weight of its proposal is due to solid experience and is a constructive advice from the not-so-distant past, for the present conditions, when an army of experts recognizes the powerlessness to outline the immediate prospects for world development, not to mention speaking with some kind of people, or initiatives of a strategic nature, as Richard Buckminster Fuller did in his time.

## Conclusion

And again – thank you: to someone who has mastered all this (or even partially). The only thing I expect from the reader is the ability to constructively use what I read, taking into account the assumptions that were laid in the book. Again, I am somewhat puzzled about what one should say in conclusion, the concluding essentially open system of narratives (not necessarily interpreted in the same way as in neoeconomics). After all, imprisonment will always be an extension, and can one conclude about something that only represents structural contours? All this work is proposed as a beginning, a primer, "prolegomena" and "sketches of optimism." I see the right choice, especially at the beginning of the 21st century, namely to create prolegomena and such etudes, and not to despair. Although, of course, optimism will be empty in inactivity.

Of course, I suggest that the reader himself draw his own conclusions on the amount of what has been said, and I can not forbid it, but I would like to emphasize the following important circumstance, not considered separately, but quite capable of playing the role of the "final line". Important news for a huge number of people (although for some this is not new) is the recognition of the existence of things managed in part, which represents a significant problem of personal acceptance – especially for those who do not distinguish, for example, governance and government. After all, how to recognize that there is something that is admittedly recognized as inert (with respect to itself, of course), with which it turns out necessary to reckon and get along, but what, nevertheless, is not completely controlled? With economic and macrosocial movements, with climatic and geological elements, with their own children, who "for some reason" grow up from children, but not from our conceptions of them as children, or with the opposite sex, who, learning more about you, uses this knowledge is at your discretion. The difficulty in accepting that such partial control is management by means of "arrangements" is not even related to the curiosity of the question of how to negotiate with a "child" or "element", where the quite expected, superficial and very primitive answer is that that we are negotiating something with a certain person of a "mighty God" who "completely" manages what is only partially controlled by a man who is enduring a man by strength through the creation of "vicissitudes of fate"; we turn to him when the partially controlled becomes uncontrollable. The popular "God" is a very simplistic concept of a certain component of the universe, which we have not so well learned to interact with and have not learned to understand well (despite all the efforts of other

greats) – precisely because of the fundamental error of the very way of understanding and interactions. After all, no other organized control of the world, except for "controllability" and its denial, most people do not imagine themselves (the deistic "created and let go" applies here). As the world perceives them (and is known in such a presumption), it is siemjzhno-intuitively-instinctively as essentially hostile, stagnant and "assimilated" (whereas in reality it is hostile only with respect to conditions, order and mediation of interaction), the very question of "arrangements" with it looks either as absurd or as a compromising "weak-willed position." And the cybernetic model of the "black box", applied most widely (to the whole world and its macro components), is regarded as insufficient due to either its depersonification, excluding the possibility of talking about an "abstract God", or – more often – the prerequisite for a principled cognition of the world order as a certain, self-contained (and, correspondingly, within the framework of a certain "universal theory") of unity.

Meanwhile, the approach from the point of view of an agreement and dialogue is based on the presumption of trust, primarily related to the recognition of an environment that is not controlled by us (and our own device, by the way) on universal universal principles – both in the structural and in the activity plans. And the fact that the organization given to our observation and reflection is only partially open to our ratio, is not irrational because of this lack of control, is not completely isolated from us, not necessarily hostile to us and not necessarily uncontrollable – contrary to the common error of confusion of the concepts of uncontrollability and uncontrollability, most likely, from a correspondent (in many respects a solipsist) concept of authenticity. But agreement means reciprocity of obligations, because the desire or decision to change (at whatever level it was not taken) is a question of price, and most important of all, of meaning. One-sided desire realized within the framework of the existing living conditions on the fact of the possibility of realization, without taking into account price, meaning and consequences, is a condition of infinite growth, which turns out to be quite finite for testing, and even catastrophic in this limb. Meanwhile, there are enough resources on the Earth and in the Universe to solve almost any of our problems – the question is to act "in the light of its interests", since we ourselves are part of it as a scenario. These words are not unfounded: the history of science and technology knows a lot of amazing insights based on simple and elegant things. But one should not expect from the universe the "pre-established harmony," since harmony is not something that is "pre-established", but that is created and

reproduced. And in this – an important aspect of the principle of openness of managing and managed systems. Since the question of the commensurability, observability, and comprehensibility of the processes that manifest themselves as "universal harmony," to our essence, can always be reformulated into the question of whether always and in all these commensurability, observability and comprehensibility are necessary, since it is known that it is more important not to teach the mind of knowledge is necessary knowledge (and in fact in a strange way this "suddenly" is found only at a certain stage in the development of human cognitive abilities). I believe that a substantial part of further research should be devoted to the study of what is needed within this approach.

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<sup>48</sup> The data and links in the text are presented for 2012, when the section on GAS "Management" was created.

## Author Index

Below are the names of those whom I considered necessary to mention in this book, at least in the form of adjectives.

### A

Abramov V. – p. 244

Aglietta M. – p. 230, 146

Alexander the Great – p. 101

Alberti L. – p. 51, 56, 57, 100, 117

Allende S. – p. 245

Anderton J. – p. 247

Aristotle – p. 71, 74, 91, 100, 101, 103, 138, 142, 172, 182, 250, 267

Ashby U. – p. 20, 148, 162

Asher M. – p. 32, 161

Atherton R. – p. 248

Attali J. – p. 211

Aurelius Mark – p. 39

Austin J. – p. 142, 166

### B

Bart R. – p. 196

Batishchev G. – p. 165

Bass E. – p. 290

Bell A. – p. 278, 290

Benadof I. – p. 245, 246

Benard G. – p. 28, 82

Berger P. – p. 140

Berkeley J. – p. 34, 122

Bethune M. – p. 58

Beer S. – p. 7, 13, 22, 61, 92, 156, 158-160, 162, 171, 172, 228, 229, 231, 232, 235, 238, 239, 240, 242, 244-247, 258

Bogdanov A. – p. 13, 40, 290

Böhm-Bawerk O. – p. 126, 168-169

Boole J. – p. 20

Borelli J. – p. 106

Borgia C. – p. 115, 116

Brahe T. – p. 100

Brydotti R. – p. 211

Braudel F. – p. 94, 97

Brunelleschi F. – p. 29

Buzgalin A. – p. 163, 165-169

Buffett W. – p. 226

## **C**

Cañete p. – p. 245, 247

Chekhov A. – p. 30, 31

Chhartishvili A. – p. 230

Chadlen M. – p. 171

Clement VI – p. 98, 99

Collingwood J. – p. 142

## **D**

Danilov-Danilyan V. – p. 47, 170

Defoe D. – p. 19, 32

Deleuze J. – p. 147, 151, 165

Delaunay B. – p. 28

Delyagin M. – p. 94, 133

Derrida J. – p. 45

Descartes R. – p. 28, 32, 139, 159, 174, 281-283, 290

Dirichlet I. – p. 28, 82

Drucker P. – p. 99, 101

Durkheim E. – p. 140, 182

## **E**

Easterly W. – p. 54, 79, 102, 104, 133, 136, 167, 177

Edison T. – p. 296

Empedocles – p. 81, 225

Engel H. – p. 141, 291

Engels F. – p. 141

Euclid – p. 290

## **F**

Filippov V. – p. 120

Forrester J. – p. 13, 201, 238

Foster N. – p. 286

Foucault M. – p. 177

Fuller R.B. – p. 9, 13, 22, 23, 32, 52, 53, 60, 67, 92, 97, 111, 126, 144, 156, 157, 174, 209, 210, 226, 231, 244, 251-253, 271, 273, 275-296

## G

Gaidenko P. – p. 69, 158

Galileo G. – p. 99

Gitelzon I. – p. 290

Glazychev V. – p. 50, 185

Glazyev S. – p. 170

Glushkov V. – p. 239, 253

Gödel K. – p. 20, 148

Goldrath E. – p. 162, 228, 229

Goebbels J. – p. 226

Grandi M. – p. 247

Grebner F. – p. 206

Greenway P. – p. 32

Grigoriev O. – p. 10, 19, 20, 22, 23, 26, 27, 30, 31, 42, 43, 45-50, 52-56, 58, 59, 62, 65, 68, 69, 71, 73, 75, 82-84, 87, 92, 95, 97, 104, 125-128, 130, 133, 136-138, 141, 143, 145, 152, 153, 162, 163, 165-170, 172, 173, 175, 182, 188, 196, 197, 199, 200, 203, 204, 207, 208, 210, 213, 219, 223, 229, 230, 269, 287, 314

Guattari F. – p. 151

Gubanov D. – p. 230

## H

Hegel G. – p. 74, 144

Heron of Alexandria – p. 116

Hesse G. – p. 83

Hobsbaum E. – p. 219

Heidegger M. – p. 41, 105, 128, 198

Holstein J. – p. 206  
Hesmondhalgh D. – p. 108  
Husserl E. – p. 28, 126, 166

## I

Iogansen K. – p. 278  
Ivan the Terrible – p. 101  
Ivlev Yu.V. – p. 265

## J

James W. – p. 126  
Jemal G. – p. 222  
Jesus of Nazareth – p. 37, 38  
Jones T. – p. 24

## K

Kat Ch. – p. 226  
Katasonov V. – p. 69  
Keynes J. – p. 58  
Kepler I. – p. 100, 104  
Khazin M. – p. 126, 185  
Khaldun ibn – p. 71, 198  
Kharlamov A. – p. 137  
Khan-Magomedov S. – p. 278, 286  
Kiyosaki R. – p. 182, 185  
Koestler A. – p. 55, 60, 162, 163, 229  
Kolganov A. – p. 163, 166, 169

Korolev S. – p. 288, 289

Kosygin A. – p. 161

Krugman P. – p. 214

Kuhn T. – p. 129

## L

Lakatos I. – p. 50, 110

Lange K. – p. 126, 129, 132

Lenin V. – p. 31, 101, 167-169, 215, 252

Leonardo da Vinci – p. 105, 106, 275, 278, 280

Lesnevsky S. – p. 182

Lewis D. – p. 182

Lilienfeld P. – p. 182

Lobachevsky N. – p. 291

Lorenzo the Magnificent – p. 29, 98, 99, 100, 115, 116

Lowe J. – p. 61, 145

Lucilla (Procurator of Sicily) – p. 38

Lukman T. – p. 140

Luxembourg p. – p. 168, 169, 215

Luther M. – p. 120, 122

## M

Machiavelli N. – p. 115

Malthus T. – p. 47, 57, 78, 197, 198, 201, 202, 206, 213-215

Marx K. – p. 42, 49, 81-83, 87, 92, 141, 144, 163-169, 183, 199, 200, 203, 215, 252, 272, 286-288

Meadows D. – p. 201, 238

Medici – p. 99 100, 108, 115, 116

Mendeleev D. – p. 8

Merlo-Ponty M. – p. 128

Murphy E. – p. 16

Mirskaya E. – p. 127

Morgan J. – p. 394, 295

## **N**

Nefedov S. – p. 47, 63, 196, 201, 205-209, 211, 212, 306

Nicodemus the Apostle – p. 38

Nikolay Kuzansky – p. 29

Novikov V. – p. 11

Novikov D. – p. 230

Newsom B. – p. 171

## **O**

Occam W. – p. 170

Okhitovich M. – p. 174, 185, 286-288

Orlean A. – p. 21, 146, 230

## **P**

Papanek V. – p. 23, 48, 52-56, 59, 60, 62, 67, 229, 250

Parkinson S. – p. 16

Parsons T. – p. 182

Pavelieva T. – p. 129-132

Peter the Great – p. 145

Peter L. – p. 16, 145  
Pinochet A. – p. 244  
Pierce Ch. – p. 126  
Plato – p. 91, 92, 99, 101, 142, 280  
Poincaré A. – p. 282  
Polany M. – p. 126, 128  
Pomorov S. – p. 175  
Popov G. – p. 239  
Popper K. – p. 128, 227  
Putnam H. – p. 155

## **R**

Riccardo D. – p. 57, 201, 206, 213  
Rothschilds – p. 225, 226  
Rudolph II of Habsburg – p. 99, 100-102, 105-107, 134, 135

## **S**

Sabsovich L. – p. 174  
Sartre J. – p. 140  
Say J.-B. – p. 214  
Schauberger V. – p. 46, 106, 273, 280, 283-285  
Scheler M. – p. 126  
Schutz A. – p. 140  
Seneca L. – p. 38, 92  
Sheffle A. – p. 182  
Schlahter V. – p. 226

Schumpeter J. – p. 126  
Shukhov V. – p. 278, 284-286  
Simakov O. – p. 240  
Sismondi J. – p. 213, 214  
Smirnov V. – p. 265  
Smith A. – p. 57, 90, 168, 188, 238, 272  
Snelson K. – p. 13, 126, 276-278, 280, 291  
Swift J. – p. 34

## **T**

Terskov I. – p. 290  
Tesla N. – p. 104, 273, 280-283, 285, 294, 295  
Thomas Aquinas – p. 98, 118  
Torricelli E. – p. 99  
Tornquist L. – p. 54, 61, 68, 74, 107

## **V**

Vernadsky V. – p. 128  
Verne J. – p. 166  
Vauban S. – p. 57  
Voronoi G. – p. 28, 82, 161  
Vysokovsky A. – p. 179

## **W**

Wallerstein I. – p. 168, 211, 294  
Weber M. – p. 27-30, 41, 42, 44-46, 56, 57, 60, 198, 229

Wiener N. – p. 13, 92

Wojnicz M. – p. 101

**X**

Xenophon – p. 91

**Y**

Yaroshevsky M. – p. 130, 131

**Z**

Zhukov G. – p. 242

Zinoviev A. – p. 158

## About the author

I was born in 1973 in Moscow, and after a considerable period of time to find out what really happened on that momentous immediately preceding and immediately following his years. Among the most vivid impressions of childhood I remember a violent nature Zauralnoy grove, where I often went to his grandfather in the summer at the dacha. In the early 90's got Secondary medical education, 2 years he worked in the laboratory of the intensive care unit hospital, witnessed the collapse of the USSR, as well as with their own eyes saw, from any natural causes people die at an advanced age in state conditions, and how to they do not have anyone no case. At the end of the 90 he graduated from the Philosophical Faculty of Moscow State University on a specialty "History and Philosophy of Science and Technology." It was a time of old as the world, the struggle of contradictions: comprehension of science in conflict with the constant search for the earnings base and attempt to understand their relevance. At the same time it increased the feeling and the realization that the situation of scientific and educational base in the country increasingly resembles the old situation of the hospital: there is no case to anyone. Awareness of the value of the most fundamental of all possible kinds of higher education required to the value of combining the development of the real conditions of the demand for their own work, and understanding of the areas where such a combination is possible. The most active issue was worked from the last years of study in the early 00's, with the accumulation of expertise and the formation of their own "backgrounds." For the same reason I finished graduate school of the faculty, but he did not defend his dissertation. I felt that it was there, outside the walls, just have something important that needs attention and the scientist is able to fill the weight and content of the subject of my research interests at that time – the logic of dialogue and structural bases of communication processes. Even then it was clear that the subject himself, and some significant proportion of many other subjects require a completely different formats and methods of research, rather than a source familiar, and that the very method of cognitive activity must be some other, non-campus. The period in question, as well as the search for such methods, in many respects is still ongoing. In his professional activity for many years, I worked as an analyst and head of the research department, in organizations specializing in different directions "industry propaganda", "cultural industries" and "human technology." As the application areas of my work and its products, they have become one of the reasons to expand their view of the world, including aspects of economic, political, environmental, urban and cultural processes that make up part of a unifie process of human history.

Je suis né en 1973 à Moscou, et après une période de temps considérable pour savoir ce qui est vraiment arrivé sur ces capitales précédentes et les suivent immédiatement ses années. Parmi les plus vives impressions de l'enfance, je me souviens d'une nature violente Zauralnoy Grove, où je suis allé souvent à son grand-père à l'été à la datcha. Au début des années 90 ont obtenu la formation médicale secondaire, 2 ans, il a travaillé dans le laboratoire de l'hôpital de l'unité de soins intensifs, assisté à l'effondrement de l'URSS, ainsi que de leurs propres yeux vu, de causes naturelles des gens meurent à un âge avancé dans des conditions de l'Etat, et comment ne pas avoir personne aucun cas. À la fin de la 90, il est diplômé de la Faculté de philosophie de l'Université d'Etat de Moscou sur une spécialité «Histoire et philosophie des sciences et de la technologie." Il fut un temps de vieux comme le monde, la lutte des contradictions: la compréhension de la science en conflit avec la recherche constante de la base des revenus et de tenter de comprendre leur pertinence. Dans le même temps il a augmenté le sentiment et la réalisation que la situation de la base scientifique et éducatif dans le pays ressemble de plus en plus l'ancienne situation de l'hôpital: il n'y a aucun cas à personne. Prise de conscience de la valeur de la plus fondamentale de toutes sortes possibles de l'enseignement supérieur requis pour l'intérêt de combiner le développement des conditions réelles de la demande pour leur propre travail, et la compréhension des domaines où une telle combinaison est possible. La question la plus active a été travaillé dans les dernières années d'études au début des années 00'S, avec l'accumulation de l'expertise et la formation de leurs propres «origines». Pour la même raison, je fini l'école d'études supérieures de la faculté, mais il n'a pas défendu sa thèse. Je me suis senti qu'il était là, à l'extérieur des murs, avoir juste quelque chose d'important qui nécessite une attention et le scientifique est en mesure de combler le poids et le contenu de l'objet de mes intérêts de recherche à ce moment – la logique du dialogue et des bases structurelles du processus de communication. Même alors, il était clair que le sujet lui-même, et une certaine proportion significative de nombreux autres sujets nécessitent un complètement différents formats et méthodes de recherche, plutôt que d'une source familière, et que la méthode même de l'activité cognitive doit être un autre, non-campus. La période en question, ainsi que la recherche de ces méthodes, à bien des égards est toujours en cours. Dans son activité professionnelle depuis de nombreuses années, je travaillais comme analyste et chef du département de la recherche, dans les organisations spécialisées dans des directions différentes "propagande de l'industrie", "industries culturelles" et "la technologie humaine." Comme les domaines de mon travail et de ses produits d'application, ils sont devenus l'une des raisons d'élargir leur vision du monde, y compris les aspects des processus économiques, politiques, environnementales, urbaines et culturelles qui font partie d'un processus unifié de l'histoire humaine.

Also in the series – the book

Dmitry N. Alekseev

## PARTIALLY CONTROLLED. TO NEW EPISTEMOLOGY

The work continues a series of topics started in the first book. And this announcement presents a small excerpt from the introduction: indeed, if something new were given here, at least for one page, then the question would be natural why it is not in the general text; and, in fact, just such a partiality is justified.

... At the beginning of the 21st century, it is becoming increasingly clear that by squeezing nature into the need for "progress", discrediting the idea of scientific and technological development, the "fathers of society" succeeding in generations have begun to pump out money, as well as the potential for health and life from the very population, the number of which is the main condition for the division of labor and wealth, thereby reducing the level of civilizational development and thereby destroying the basis of one's own existence. The world has formed a global trade configuration, but at the same time, ideas have emerged about disaggregation associated with a high level of local life. This raises questions about the risks from the rest of the world and the control of its processes, and whether the partial management of the world can be integral as part of its self-government. Outside the economy, the concept of externalities indicates that such management is inevitably the management of an ecosystem that is partially open to the universe itself. Thus, the system dynamics recalled within the framework of these reflections (SD) as an invention aimed at solving fundamental problems of the global presence of a person reveals that it is effective only as a tool in the paradigm of partial controllability, but not in the paternalistic-centralized paradigm, input data, uncontrolled links and self-regulatory factors that naturally exclude iatrogenic paternalism. Moreover, the sphere of application of the SD was immediately announced the automated controllability of the urban environment, and precisely with this simultaneously both the task and the supertask, it was published. So, since there is a narrative about the organic nature of human presence in a limited area of management, this narrative is also about partial controllability. Just as the medical management of the human body is not "absolute", and, of course, society, not absolute, partial, is the management of the urban environment, covering all three spheres of government. Therefore, it seems justified to consider the subject of this book precisely in the aspect of urban environment as a meta control object. And, of course, the category of partiality must be. is correlated with such a strange concept of modern cybernetics as "open systems". Already at the level of elementary intuition, it is noticeable that such systems are characterized by partial controllability, but I strongly doubt that this aspect of anyone would be considered seriously or strictly ...

Separate topic in connection with the "partial" was the crypto currency, ambiguous fit in the body of modern economic concepts. This topic of "civil money" is becoming very relevant today in connection with the processes of digitalization of monetary calculations, carried out at the state level and observed in some regions of the world.

For the most part, open systems are seen as breaking and restored integrity, but hardly as something worthy of attention and trust, deliberate fragmentation (or its permissibility) is considered, especially when it comes to systems of human communities. This topic is also partly continued in the third book.

Also in the series – the book

Dmitry N. Alekseev

## PROJECT ANTHROPOLOGY. NEW ORGANIZED PERSON

The book continues the theme of formats, methods and definitions presented in previous books, and focuses on the associated image of a person who is in the field of specific and specific management problems. Actually, those to whom this book is addressed, today are just in the field of more and more clearly perceived problems and risks related no more and no less, both with identity and the fact of existence as persons spoiled by intellect, and consciousnesses burdened with enlightenment.

In the sense of basic philosophies, this work is based on the recognition of the sociobiological nature only at the level of evolutionary-organic options, with the negation of its essential significance; the latter is associated with the possibility of choice, which is actualized through the factor of development and constitutes the foundation of freedom as the highest value, the absolute openness and accessibility of which to the person, in turn, turns out to be the basis of responsibility (the right of refusal and restriction as conditions of identity), and all creativity and meaning. As an institutional form of the latter, it is suggested to consider the media environment as a specific sphere of activity (in a broader sense – "culture industry"), which arose in immemorial times, but its industrial (system-market) expression obtained in the era of capitalism. The structural and instrumental aspect of such an analysis is related to the task of solving the problems of the disappearance of the middle class and the emergence of the category of "project person" emerging in its definitions, beyond the usual neo-liberal notions on this score, the ideas of the Weberian organized man, the Marx "skilled proletarians" either a "petty bourgeois" or a postmodern man of "eclectic permissiveness". Of course, this is a very difficult task, but the attempt to approach at least its formulation and at least start to search for its solution is extremely urgent and urgent.

Also, the formulation of the question about the project person and the search for answers goes into the development of the discussions begun several years ago in the research center "Neoeconomics" by O.V. Grigoriev, one of the most outstanding and most sober (albeit very tough) minds of our time, in the opinion of the author of these books, as well as in the opinion of a number of highly experienced experts. The disappearance of the key social category, on which the world staked for a very long time, became fraught with quite well-known perversions of archaization, and in its significance represents a crisis of identity, and in the sense of not only philosophical anthropology, but also medical. There is also a great deal of evidence that this disappearance is a systemic liquidation carried out in such sophisticated formats of total control that leave the dictatorship of the 20th century far behind, and all sorts of anti-utopias (sometimes of very high quality) aside, signaling the gradual implementation of a fantastic a nightmare in reality.

Meanwhile, despite the pessimism of the diagnoses proclaimed to the world by harsh experts, it is possible to see positive opportunities, and in those things that are not only not considered in the sense of the possibility of positive changes, but are considered factors of aggravation of the situation. A key role here is played by long-standing, and, by the way, trivial general principles: balancing the means of influence with means of non-perception, counter-impact and alteration; the use of a destructive factor for good or against its source; but most importantly, and by the way, for many, it is far from a trivial phenomenon of the crisis of the hierarchical model of society management, which denies itself through the increasingly obvious nature of its irrationality and absurdity as the total, absolute and unambiguous principle of social life.