New Design Territory

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Abstract. The outcome of the discourse about the modernization in Russia should be summed up. The postindustrial social structure failed to withdraw the economy out of the long-term stagnation. As for the digital economy, it appeared non-performing as well. Probably, our scenario should be a mixed economy. Such a structure of all economic systems suggests the whole experience of the country being useful. Objective. It is to define a development and modernization conception when a high level of education and culture becomes a substantial factor of a faster development. These particular components will help to make the economy function successfully, formulate urgent tasks, and find mechanisms of implementing them. An economic version based on a new type agriculture using newest agricultural technologies and being environmentally safe, is widely considered at present. What is principle here is the necessity in a totally new image of an agricultural settlement from the viewpoint of architecture and design. A really modern, smart, and well-functioning infrastructure will give a chance to attract specialists possessing a high level education and new thinking. Methods. New agricultural settlement concepts should be worked out on the basis of the country’s greatest experience. In the conditions of Russia’s climate, it is useful to take into account traditional, “Soviet, and supermodern ways of economy management. Searches for sources of architectural projects of Soviet agricultural settlements appeared a most hard task. Perhaps, it can be accounted for by intensive building and new territory development difficulties. Anyhow, there were many forms for specialized farms and settlements: kolkhozes, cooperatives, and industrial type settlements; they exist now, too. An experience variety, accumulated by many generations, will allow creating a mixed economy and solving modernization and faster development problems. Particularly this thesis was accepted as a basis for creating actual conceptions of agricultural settlements at the Chair of Design and Art History. This work resulted in model complexes, made by student creative teams developing their own project ideas. The main aim of these projects was not a mere search for a conception of a country settlement but a creation of an image of a really up-to-date, comfortable, and, what is important, harmonic, environmentally sustainable and beautiful area, the one that suggests development and maintaining environmentally sustainable state of itself.

1. Introduction
The XXI century is an age of science-intensive productions, high technologies, and rapid innovations. The world economy transforms into a postindustrial fast enough when usual commercial products lose their priority in favour of intangible assets that are science-based. It is already now that the countries, leading in these aspects, gain a crucial competitive advantage. More over, these advantages give the leaders a chance to monopolize if not a right but the very possibility to govern the future. What this
new world will be, it is difficult to forecast at present but it is obvious that totally different global hierarchies and games are going to come.

The public’s attention is focused on the question of the future of Russia. It is spoken and discussed by experts, political figures, and government leaders. This interest in forecasts and scenarios of the future shows that the country needs changes urgently. What these changes will be, in many ways depends on the leaders but, in the first place, on the society. After two decade transformations it must be stated that the advance was hard. Numerous crises put a question if the chosen route was right. The objectives were only meant or they were particular technocratic. The advance was going on but neither direction nor “an image of the wishful future” was defined.

Modernization becomes a symbol of the time. Thus, a) lag and b) necessity of cardinal changes are recognized. The turning point in attitude and understanding of the situation and prospects has occurred recently but the process has not been completed, yet. The urgent modernization demands a strategic agreement in the society. Though no consensus of outlook and political views is reached but a common reference point is felt. Universally recognized is the problem of changing the way of the economic development – overcoming the excessive dependence on raw materials export and turning to an economy of knowledge, science-driven productions, and intensive innovations. Intellect, knowledge, and technologies become most important assets. The information revolution, based on digital and media technologies, cardinally transforms human existence. It multiplexes time and space, opens frontiers, and lets come into contact with any point of the world. It turns individuals into citizens of the world. The Internet made it possible to communicate in a real time mode.

2. Materials and methods
It is particular Russia that is to carry out a mission of forming a new type society. Our country has an experience of this kind; nowadays, the situation gives a chance to make use of it and take it as a basis of further development. The main tasks are a creation of modern digital space, a transformation of various national particulars into an integral panhuman civilization, determination and compliance with certain common rules of interaction of nature and community, and formation of a holistic political, economic, scientific, and technological system. In future, it will be necessary to create high technological robot-based productions, to transit to responsible cognitive society (in all branches of human activities). One of the most important tasks is a creation and development of new science-concentrated towns. Rich natural resources, growing demand for agricultural products of high quality, and our own digital platforms can transform Russia into an “integral village”.

Today, most of towns and cities in Russia are surrounded by a great number of private-owned farms. The part of the agricultural production, which has remained in the background, will grow into a profitable and promising branch. Perhaps, it is particularly Russia that will become a center of working out technologies of growing environmentally safe and pollution-free and high-yielding crops. Agricultural technologies will occupy an important place among scientific projects. Fertilizing and soil enrichment, robotized agricultural vehicles, and digital technologies can replace humans at most labour-intensive jobs. A farmer will control his iron-made workers by means of a computer, the Internet, and somewhat still more advanced without leaving his home.

As far as “kolkoz” has become something frightening (though what is wrong with collective farming?) then we shall use the term “agricultural settlement”. What it is, everyone, who remembers our institution of creative boarding houses, will understand it – a cohabitation of people, engaged in one branch of activities, one profession, their communication, learning, experience exchange, and creative problems discussion in the conditions of well organized living. All these helped to create high level works in different genres. Anyhow, all of us feel a need of constructive communication according to professional interests. It is important for us to exchange thoughts, and problems with people close by education and experience. It is particular in this way that the new type agricultural settlements can be arranged. Let us suppose that an astrophysical research institute is established on a definite ground – a scientific campus. Beside their effective work, people will have a chance to live in modern, environmentally safe, well arranged conditions in their own “fruit, flower, or vegetable
gardens”. Making use of the newest agricultural technologies and renewable sources of energy, tillage will be greatly different. And if the synergy of the joint scientific search will not result in a considerable breakthrough in astrophysics, however, they will have a rich harvest, provided, everything was planted in correct days according to the lunar calendar.

3. Discussions
Speculating about Russia’s postindustrial prospects, Academician N.N. Moiseyev noted that this stage of development raises training an overall craftsmanship to a nationwide task: “The people, on whom the successful productive activity depends, had to be taught and trained for a long, long time; and there is no problem more important than education and upbringing of the people and formation of a master even in the conditions of a crisis of the economy” [1].

The successful modernization now requires intellectual and skilled labour – more and more people begin to understand relations between their own efforts to acquire profession, education, or their diligence and their level of life. In its turn, this created a demand for good education, health care, and pension system, which should be based on a principle of equality but not on “levelling”. This shift in the system of values began in the first decade of the XXI century. Fast development of distance interrelations and access to new forms of labour management will give a chance to everyone to actively and constructively work, to learn and enrich his or her experience. As a result, not a single group of people that is in the least bit considerable – persons with disabilities or elderly ones, will appear beyond the community; they will have a chance to contribute to the social advance [2].

Historically, the population settlement pattern of Russia was formed spontaneously. Housing construction crossing the overcrowded megalopolises’ frontiers is an objectively unavoidable process. Undoubtedly, suburban residential areas development is a near-term prospect for many large cities. However, the above mentioned difficulty lies in the fact that such a form of settlement and intensive construction on suburban areas surrounding large cities, is to a great extent new to Russia and going on haphazard. Today’s country housing is dacha areas, built as far back as Soviet times, and so called elite settlements, built recently. Dachas cannot be considered as an experience relevant to the question because they are mainly intended for seasonal use, for a rest or growing gardens, they are not full-time residences. Therefore, there is neither household nor social infrastructure provided. Elite settlements are very few and exclusive, and they cannot be considered as a prototype of future suburban settlements, suitable for hundreds of thousands of population. The lack of a wide suburban construction experience shows that most obvious but detail questions are accentuated though of course they are important. As a rule, discussions concern infrastructure problems: roads and energy supply. “In the majority of cases, they agree on the opinion that the low-rise construction portion will considerably increase. Such data was reported in the center “Realty Market Indicess”. The researches were conducted in Ufa and Chelyabinsk. By experts’ opinion, it should be expected that in future the portion of controlled cottage townships will increase in most regions of Russia” [8].

4. Results
Agricultural works stopped on one third of the sown area, this means that there appeared empty territories. The latter can at best become overgrown with forests, or waterlogged, or in another version of events, be occupied by other peoples. However, in future, we hope to see the agricultural economy to be mainly industrial and cooperative, with restored and populated territories, modern infrastructure, accessible education and health care, and culture, highly skilled personnel, and normal demographic situation. Such is a “new” image of agriculture in Russia. The architecture should of course be involved in the process. Nowadays, the architecture gives an immediate response to any innovation in any sphere of the social life. Modern technologies allow creating ultrastrong and light constructions industrially; the gene engineering will probably provide new building materials, able to grow right on the construction site.

Everybody feels harmony and beauty, attracting, prompting to speculate, and inspiring a creative potential, hidden in everyone. One of the scientific researches of the Chair is connected with
conceptual study of single-purpose settlements, or satellite towns, where the infrastructure is formed so that in these “agricultural towns” each resident’s scenario of life should be organic as much as possible. Students made model versions of these conceptions where areas are divided into sport and exhibition grounds, and each microdistrict, what was earlier understood as a courtyard, includes a sport zone with an open swimming pool. It suggests green houses, gardens, and agriproduct processing without expenditures connected with the logistics. Furthermore, it suggests a possibility to update one’s skills and knowledge in professional and scientific activities in a team of persons, sharing the same ideas. And what is most important is modern, elegant, and comfortable architecture, perhaps, standardized, but having a great number of abilities to transform; the variability being realized by means of not only building technologies but also new materials. Alongside, street art, public art, and graffiti become an important principle of creation of the individual living environment. The projects “Garden Town”, “Green Ray”, and “Clock Face City” include allocated areas for administrative and scientific centers, a local data center, a transport less mobility system, and agricultural zones specialized in accordance with residents’ desires.

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