Innovative technologies of sculptural and applied activities in bachelor-architects training

N Yu Zakharova*, I M Vlasova, I V Protopopova, R L Lukyanov
Don State Technical University, 1, Gagarin Square, Rostov-on-Don, 344000, Russia,

E-mail: Natalya.zaharova@gmail.com

Abstract. The environment architectural and artistic appearance forms interrelations with the buildings cultural space organization, the sculpture and sculpture compositions presence problem in the urban environment perception are considered. The architecture future masters’ creative development by means of sculptural and applied activity is analyzed.

Introduction
Analyzing the sculpture and sculpture compositions modern trends revival in the city and chamber space, it can be noted that they are formed in the conditions of unique expression, focusing on the search and innovation originality, based on a variety of modern available sculptural materials, techniques and technologies. However, the urban development aesthetic quality for various reasons, resonates with a small range of artistic and aesthetic diversity in this area, which suggests a study of a factors complex that will recreate the environment architectural and artistic appearance expressiveness. [4] In order to identify the sculpture and object-spatial environment interaction features to identify the various plastic trends viability, it is important to determine the sculpture works role in the urban environment humanization. The aesthetics and spiritual life of the city should pass through the prism of understanding the whole society, under the scrutiny of city authorities, architecture and the arts.

Technology sculptural and applied activities
In the further development area implementation, it is necessary to form the essence of the processes taking place understanding, an idea of the patterns and ways to achieve the objectives with the bachelor-architects. In actualizing these positions’ solution, a creative tandem of sculptors and architects will be necessary in the space life-building and aesthetic transformation process. Giving the ethnic and national heritage, the space plastic expression can be enriched by the spirit of a particular place, its architectural and historical significance. This approach expands the architecture interaction possibilities with the environment in the sculpture genres variety, the originality of their forms and materials. The architecture and sculpture interaction consists in choosing a figurative system, finding stylistic norms of plastic art on the national cultures basis. E. B. Murina writes, “This means that synthetic shaping must reckon with the fundamental national-national ideas about the world, man, nature, state, beauty and other important objects, which together constitute the national model of the world” [3]. In this article context, the designation of the applied sculpture activity is stated. We consider it necessary to formulate this concept definition to be extremely lapidary. Applied activity is focused on the knowledge use in the action algorithm for creating the required product. Sculptural
activity is an artistic process of combining the author’s work with the material, the symbiosis of his spiritual world with the artistic image of the future work.

Sculptural and applied activity is a type of creative artistic skill in the process of which the artistic ideal is combined with the work material, the transformation of the ideal into a material form, the root cause of which is the undeniable need to rethink the practical needs of man into spiritual artistic value. We differentiate the creation of sculptural and applied, somewhat synthesizing the latter from decorative and applied, because we consider it necessary to expand the understanding and teaching of sculpture by including modern technologies in the program. The result proclaims the “materialization of the spiritual and spiritualization of the material” the artistic penetration into the technical sphere and vice versa. A new perspective appears - skillful knowledge, guiding the activity, which exists as the applied knowledge of the participant in the sculptural and applied activity. Applied knowledge processes the volume of cognitive material into technological processes, applied knowledge is transported in the form of technologies into the practical field. Next, we present a model of technologization of sculptural and applied activity.

The sculptural and applied activity technologization model

The algorithm for the technologization of sculpture and applied activity is determined by the model:

KNOWLEDGE → pre-design research, recruitment → technology of creative search → THEORETICAL APPARATUS (educational practices) → APPLIED KNOWLEDGE → instrumentalization → MANUFACTURING ACTIVITIES

By production activity, we mean the activity resulting in the sculpture and applied activity products emergence. Reflective classical thinking forms design thinking, which creates a pulsating cultural event, from which the artistic images space unfolds.

The learning applied orientation implementation involves the knowledge acquisition, competence-based on self-determination and the growth based on existing knowledge, the cognitive activity stimulation and the creative thinking development. The practical significance of the discipline increases in the process of creative self-realization and increased participation in exhibition activities, the possibility of professional growth. We structured the sculptural and applied activities:

A) According to the content on:
   1) plot-applied;
   2) decorative and applied;
   3) subject and applied;
   4) complex.

B) By way of implementation on:
   1) constructive and applied;
   2) sculpture and applied;
   3) combined;

C) In directions to:
   1) the organization of visual perception;
   2) the development of the ability to isolate the constructive, plastic essence of the object;
   3) the implementation of the methods of creating sculpture;
   4) Groundbreaking performance tests in the control groups, we concluded that:
   creative educational practices pedagogical conditions are:
   1. Interest in paradoxes, curiosity, intelligence;
   2. Tendency to doubt, decisions poly-variance;
   3. A sense of novelty, emotional color, artistry;
   4. Sharpness of thought, flexibility of thinking;
   5. The development of creative imagination, the desire for self-improvement;
   6. The development of intuition;
   7. Aesthetic sense of beauty;
   8. Wit, optimism;
9. Ability to open analogies;
10. Courage and independence of judgment;
11. Self-criticism;
12. Logical rigor, competence;
13. Ability to use various forms of evidence, etc.;

Creativity is the ancestral essence of man, his most important attribute, acquired with labor, transforming activity, which in the context of this study is the sculptural and applied activity. Creativity provides a link between generations and involves original and productive activities, the ability to solve the problem situations, productive imagination combined with a critical attitude to the result achieved, expands the human capabilities limits, creating conditions for the conquest of new heights, “Acme”.

The human race activity attribute is the artistic activity, the essence of which is creativity. This is self-activity, encompassing a change in reality and the creative development of the individual in the process of creating material, aesthetic and spiritual values. The precondition of this activity is the knowledge process, accumulation of knowledge about the types and methods of activity, about the subject to be changed, about the materials to be used.

The bachelor-architects inclusion in the sculptural and applied activities is an additional condition for their creative development and professional growth, brings up the creativity subject in them, instills in them the relevant knowledge and skills, educates, develops all the individuality spheres, which makes it comprehensively developed levels of material and spiritual culture, teaches “to create”. Creativity is possible only on the continuity basis in the culture development.

The creativity subject can realize its task only by interacting with the spiritual experience of mankind, with the historical experience of civilization. Creativity as a prerequisite includes the introduction of his subject in the culture, the actualization of some of the results of past activities of people. A synonym for “creativity” is “creation”, the process of creation by a person of the objective and spiritual world, it becomes obvious that the source of this process is creative activity. No process can exist without the energies exchange; creative activity is accompanied not only by the expenditure of creative energy, but also by its accumulation.

Sculpture and applied activity is aimed at changing the material or spiritual world, to meet the society needs, it can be argued that its result is the impact of a person on the world around him using his creative energy, which at the same time turns into other energy forms. The transformation of this energy into other types of energy allows a person to create an artificial, objective environment, to develop a set of personal creative energy vectors, allowing him to actualize in various spheres.

Satisfaction of material and spiritual needs of a person is possible due to the exchange of creative energies between people, at the expense and accumulation of a person’s own creative energy, by reception, accumulation, transformation and generation of it at a new energy level. Imagination and creativity are the personality activity forms, expressed in sculpture and applied activities, leading to the creative development of the personality. Mastering the full and complete process of creativity is the main criterion of a person’s spiritual development.

The combination of all the essential forces of the trainees, the manifestation of all personal characteristics in the sculptural and applied activities contribute to the development of individuality, emphasize the unique features. [1]. As the creativity is mastered by the process of flow and results, it becomes possible for an individual to experience the moments of unity of all internal forces, which ensures a rise to a higher level of spiritual development.

Pedagogical interaction in the sculptural and applied activity context forms a certain level of subject-subject relations, object perception and stimulates self-managed creative development. Innovative technologies are manifested with the interactive activities’ dynamics, during which a progressive rhythm is presented by bio-adaptation tools, creating a success situation by the tension and relaxation phases, active analysis and reflection. Providing a situation of achieving success in the sculptural and applied activities, an emotional comprehension situation of the new, valuable, enrichment of the learner’s life experience is the scope for the teacher’s activities, nurturing the
freedom feelings and autonomy necessary for creative development. The systematic introduction for the student into the sculptural and applied activity contributes to the system formation of value attitude to work, to other people, to objects, nature, and to oneself. For the successful conduct of the sculptural and applied activities, it is necessary to use the professional practical skills of the sculptor in accordance with the laws and rules for the academic sculpture creation. In order to reproduce a given object with the characteristic plastic properties, the academic sculpture means, plastic and three-dimensional modeling are synthesized. Sculptural and plastic means are demonstrated in sculptural and applied activities in a didactic sequence, so that we can say:

1. About becoming - ripening and growth; the transition from one particular state to another - a higher level, as the unity of already implemented and potentially possible (this process unfolds mainly on the basis of natural structures);
2. On the formation - design and improvement (the acquisition of a perfect, preexisting in culture sample). The formation process includes socio-cultural structures;
3. On transformation - self-development and the main life vector change; as a transformation - a cardinal overcoming of the existing mode of life activity in accordance with a certain hierarchy of values and meanings of human existence. The transformation process is predominantly to spiritual and practical structures.

During the sculptural and applied activities, an atmosphere of harmony is formed, based on intrinsic motivation, professional and personal growth, and the triialogical interaction of the system subject-object-subject activity mutual interaction, the principle of creative activity of the individual is realized on three levels: activity, social, spiritual. Creative development as a priority goal of sculpture pedagogical support and applied activity makes it necessary to determine pedagogical tools, principles, methods for the most successful implementation of the developmental function of artistic education. “There are three facets in a human: along with the biological basis (individual) and social (person), there is a third facet – “human in man” (individuality)”. [1]

Summary
Sculptural and applied activity has a complex effect on all spheres of the personality: it affects the intellectual sphere of the personality by the mental activity, the volitional sphere by the activity tension, the effectiveness of which is possible only under the action of ultimate grounds. It affects the emotional-sensual sphere by the individual joy and emotional background created by the team. It affects the moral sphere of the person by the embodiment of ideas, moral attitudes, values according to various principles.

It assumes the individuality and individual creative features sphere development of the subject itself, which consist of:
- in the expression of interest in the sculpture and applied activities;
- in imagination that is manageable;
- in extraordinary and original thinking;
- in personal interest in creating a specific volume-plastic artistic image, i.e. when doing creative work.

In the creative development process, the internal, adequately expressed in the external, ceased to be only internal, becomes a vital and trembling single-part activity product structure.

The bachelor-architects creative thinking basis should be the centuries-old tradition of implementing the art synthesizing spatial forms idea, the artistic consciousness phenomenology, ways of transforming the spiritual world of a person and his environment. Ideas about the meaning and form materialize in plastic vocabulary based on associative reflections on life and culture. The urban culture concept is often shaped by the city-forming components perfection, details, the appearance of which characterizes the cultural pulse of the city.

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