



DOI: 10.21005/pif.2017.30.B-04

OVERVIEW OF THE MAIN PROBLEMS IN THEORY AND PRACTICE OF UKRAINIAN DESIGN IN CONTEXT OF GLOBAL TRENDS

PRZEGLĄD GŁÓWNYCH PROBLEMÓW W TEORII I PRAKTYCE DESIGNU UKRAIŃSKIEGO W KONTEKŚCIE TRENDÓW GLOBALNYCH

Taras Habrel
asystent

Lviv Polytechnic National University
Institute of Architecture
Department of Urban Planning

ABSTRACT

Admiration for design culture, aesthetics-function interaction and the inclusion of design methods in business processes – natural global trend of post-industrial information society. Nowadays „design” considered as an entire process and it’s result, even also as a method of thinking. Specifics of the establishment designer as a profession in Ukraine and typical main problems of design theory and practice described in an article by author from position of teacher, researcher and also practicing designer.

Key words: design-thinking, designer tools, national identity.

STRESZCZENIE

Podziw dla kultury projektowej, interakcja estetyki i funkcji oraz włączenie metod projektowania w procesy biznesowe – to naturalne światowe trendy postindustrialnego informatycznego społeczeństwa. Współcześnie za "design" uważa się cały proces projektowy, jego rezultat, a nawet sposób myślenia. W niniejszym artykule opisano specyfikę zawodu projektanta na Ukrainie, typowe problemy teorii i praktyki projektowania z pozycji nauczyciela, badacza, a także praktykującego projektanta.

Słowa kluczowe: design-thinking, warsztat projektanta, tożsamość narodowa.

ANNOTATION

Technology development had separated design as a self-sufficient discipline, that is fluently developing and forming its theoretical basis, changes the human's way of thinking and world as a whole. Sometimes it change the reality of people greatly fast and sometimes unexpectedly. Ukraine as an independent country is extremely young, but under Soviet oppression lays concealed prominent cultural heritage and the remnants of that we can call - national identification. This article is dedicated to define main problems of design domain in Ukraine, and to chart the ways to deal with them.

1. INTRODUCTION

Working as an interior designer, running my own artwork on clothes printing business, and teaching at the university, where I am researching the impact of computer technologies on the creative methodology of designer, I feel like I am entitled to make an attempt at demonstrating the results of the studies on the evolvement of design in Ukraine, to consider various aspects of its implementation and make some conclusions based on my personal experience as a teacher and a designer.

It is important to start with providing some widely known facts about Ukraine: one is a country that has no state support for entrepreneurs, corruption is deeply rooted in the system, and the gap between social classes can be compared to that during the times of feudalism. It is commonly assumed that the only way around this situation is for one to cooperate with financial and political elites, or to participate in these corruption schemes in some way as well. At the same time there are a lot of young companies (object: SmartAtoms (fig. 1), ODESD2 (fig. 2), SergeyMakhno Architects (fig. 3); interior: Yod Design Lab (fig. 4), Belenko Design (fig. 6), Yodezeen; UI/UX: Qub Studio (fig. 5a), GlobalLogic; VFX: Gloria FX, Postmodern Digital, Signal Red, graphic design: Voronin Studio (fig. 5b), Vitamin branding Agency (fig. 5c) etc, who in practice have shown us that it is possible to work and become successful in our country in different fields of design. Thus, in this paper will be analyzed design as a subject area and will outline the main problems of design domain in Ukraine. To achieve the abovementioned goal I will need to:

- Describe the theoretical and practical status of the field of design in Ukraine in the context of current design know-how;
- Define and specify the problems of the design industry in Ukraine;
- To illuminate the theoretical model (grounded in didactics) which connects various tools and design phases together into a methodological structure.

2. METHODOLOGY

In regards to the scientific methods, the following ones were used - the paper was written using analysis of scientific literature including recent publications and neoteric on-line blogs. Expert analysis and experience based on my work with clients also applied, because more than ten years of freelance work as a designer of the internal public spaces and private interiors has given me a possibility to get some experience in client-profiling and possibly summarize some specific features of working with them. Communication and questionnaires were used in order to get information about students' ideas regarding the future of design-practice. Being personally acquainted with quite a few of established and successful CEOs, I have been analyzing their careers, their vision and goals of their successful young companies. The conclusions were made based on communication with them in informal atmosphere.



Fig. 1. LaMetric (smart-clock), design by SmartAtoms, 2013



Fig. 2. Q1 arm-chair, design by Svyatoslav Zbroy (ODESD2), 2013



Fig 3. a) Dynasty chair, 2012. b) Soil tea pot, 2015; c) Tube Lamp, 2014; All by Sergey Makhno Architects



Fig. 4. CooperHead - beer workshop, design by YOD DESIGN, 2017



Fig.5. a) QubStudio, 2017; b) Voronin Studio, 2015; c) Vitamin Branding Agency, 2016



Fig.6. Gra z vognem - steak house, design by belenko.design, 2016

3. CURRENT STATE OF DESIGN DOMAIN AT UKRAINE

Since the interest in design education in Ukraine is incessantly growing - nearly every higher education establishment is looking to open a department or a program related to design education. Nowadays in Ukraine there are 40 state-owned and 13 private universities [30], which try to prepare students to live as real “designers” during four or five years of studying. Also there are unnumbered quantity of different private organizations, and narrowly specialized correspondence courses, where people can learn varied aspects of design theory and practice. You need take notice that according to Ukraine structure of sciences “design” is a branch of “culture and arts”, that is little confusing for global researchers.

There are enough scientist and publishers, who try to figure out the situation with Ukrainian design domain. Some comparison of didactic ideology with European design schools was made by Fursa [7]: In today's design education of European countries, emphasis has been shifted from object modeling and constructive pathos to analysis, reflection of goals, methods, techniques, tools, criteria for design creativity on the epistemological potential of design thinking [7]. That's why we need to underline the role of philosophical perception based on care of local cultural heritage mixed with delight on global technological trends as a way of European creative thinkers. Titarenko [26] underlines the role of teacher as a mentor, points out the experience-based traditions of education, where the lecturers or teachers play role of the foremans, who must inspire students through their own creative method and unique aesthetic perception. She writes: to form his own style of presenting information, the future designer will start during the process of professional training at the university under the guidance of experienced lecturers, who conducting consultations, expressing their recommendations and helping graduates to implement new ideas in specific graduate projects [26].

Looking back even for 15 years gives us a gloomy state of things: the conducted analysis of contemporary design practices in Ukraine gives grounds to state the inadequate use of Ukrainian artistic experience by Ukrainian designers, traditions of arts and crafts [24] – wrote Tatiyivs'kyi [24]. in his PhD research at 2002 But now at 2017 we can define some positive changes that comes with strengthening the concept of “national idea”. For example Ryzhova [19] writes: the artistic elite has the opportunity and the responsibility to direct the development of mass culture, to form new ones national designer styles, national classic design, which the people and the state will represent themselves, the spirituality of their nation on the world forum of cultures, and thus make its own national one a valuable contribution to the world-wide, human cultural and designer treasury [19]. Sincere optimism also grows up with awareness that nowadays some high awards comes to Ukraine design studios from abroad quite often.

Gradually let's observe the situation from perspective of practicing successfull and effective designers, who also usually doing their own research but outside the sluggish and bureaucratic scholar community, that's why their remarks were taken from modern popular design-blog, because they not use to publish their thoughts in existing Ukrainian scientific literature. Protasova [X]: It would ideally create such a symbiosis: the base of traditional universities, 5 years of actual theory and practice, affordable value, academic drawing, complete with digital tools, and parallel, serious business training. Starushchenko [X]: Without proper modern technologies, the higher education is still taught by the age of our parents. The need for up-to-date information, technology and even visual culture has taken on private schools. Titarenko [26]: Alternative or informal educational platforms work in conjunction with vocational education. Kozlova [X]: Without self-education, it's impossible to become a designer, because in contemporary universities, contemporary methods of creating a design are practically non-existent. Self-education is possible with infomal schools. However, there is a problem of commercialization of the program: it is

unlikely that such institutions will lay profound philosophical courses, which are not less necessary for the designer [29].

Now let's take a look to academia. The notion of "scientific school" could only be appropriately used given the traditions of didactic method and individuals, who are constantly updating methodology, are in place. Thus, let's point out the main state-owned centers of design-education formation on the territory of modern Ukraine, and name a few scholars representing them:

1. Kharkiv

- Kharkiv Academy of Design and Arts (KSADA) is the oldest institution in Ukraine that trains designers - its teaching and research body presented by both experienced and young professionals (designer's professional thinking — V. Danylenko, S. Verhunov, V. Turchyn (2004); design thinking in the context of ecological paradigm — O. Vasina).

2. Kyiv

- Kyiv National University of Culture and Arts (philosophy and history of design — O. Yaremchuk; role of design thinking in innovative business and social aspects of design — N. Udris);
- The National Academy of Culture and Arts (design methodology — V. S'omkin ; advertising and visual environment — S. Pryshchenko).

3. Lviv

- Lviv National Academy of Arts (Urban space marking — P. Nahirnyy);
- National University "Lviv Polytechnic" (Ethno motifs in design — I. Yurchenko, math and art — O. Bodnar).

Summing up all the thought listed before let's conclude:

- The traditional high education does not have enough potential and intention adapt to the dynamic changes, as can be observed at the rest of the world.
- There is a need for close cooperation between state institutions that successfully preserve traditions and modern non-formal educational courses, which are founded and administered by more initiative young people.
- The awareness of the designer of his national identity and the reference to it as a source of inspiration is the right way to form a distinctive design culture and products.

4. INFLUENCE OF NATIONAL IDENTITY

Active expansion of design as a kind of human activity in Ukraine began synchronously with the spread of computer technology. Ukraine faced the possibilities of computerization, in fact, at the same time as other countries of the world. Is there content to allocate a certain "national factor"? For example, researcher P. Setkovich [22] does not mention such a special factor for his native Poland, which is geographic and mentally close to Ukraine. The dilemmas which accompany the transformation of the techniques used by Polish architects, due to the expansion of digital technology, do not differ in any substantial way from the dilemmas experienced by architects in other parts of the world [20]. But can we define a role of specific "national identity" in the creative thinking of Ukrainian design community?

Let's see some citations from Ukrainian scientific literature from two main researchers: Tscherkes B., who analyze role of national identity in architecture practice, and Danylenko [5], who has done the same research in practice of design industry. National identity is the main form of collective identification and becomes the dominant criterion of culture, the only principle of governance and the central focus of socio-economic activity [25]. The development of nationally oriented design in Ukraine is possible only in a state of unity and contradiction of national and global. That is, the Ukrainian design should be

transformed also in the stream of global designer innovations beginning of the third millennium. The implementation of the national can not take place on a different basis [5]. So it's necessary to conclude that awareness of national identity is a proper way to create valuable product, that can put level of goods produced by Ukrainian designers to the relevant place into world design scene.

National motifs in any developed ancient culture grow from the symbolic world of ancestors and carry in themselves a special content and code, so to make efforts to understand and feel them is the duty of a modern erudite designer. So conscious and relevant application of national motifs, ancient ornaments or partial return to authentic craft methods is impossible without the ability to recognize archetypes, the presence of mythological consciousness and good knowledge in modern materials processing technologies. Now, due to the capabilities of the computer, elements of the "national style" often used spontaneously without their preliminary analysis of form and semantic, which usually leads to an unsatisfactory result. In drawing and painting, the pencil and the brush become inseparable extension of the hand and the mind. A painter paints by means of the unconscious intentionality of the mind rather than the brush as a physical object [15, p. 41]. Therefore, the comprehensive development of the designer, the ability to combine traditional design methods with modern technologies is the key to the development of a mature efficient national design model.

5. CURRENT STATE OF UKRAINIAN DESIGN THEORY

Theory teaches us to ask questions, interpret the action, before it occurs. It develops simultaneously with the formation and realization of this phenomenon and is organically distributed into specific disciplines: philosophy of design, methodology of design and history of design. There is a lot of research going on in these areas abroad, while in Ukraine the theory of design is not too popular and has been explored only in its practical component.

Contemporary global paradigms of modern design studies abroad revolve around notions of "ethics", "sustainable development" and "social responsibility". Considering the trends in the global studies of design, it is worth noting that "design thinking" as a strategy has been intensely used by designers in problem solving. First principles for the creation of this approach were laid out by theorists and practitioners of the design studies in the twentieth century – Dewey, J., Hartz, D.B., and Rubenstein, A.H., Jones, J. C. Alexander, C., Burnette, C.H. Arnheim, R., De Bono, E., Papanek, V. Gordon, J.J., Norman, D. A., Cross, N. Nowadays there are several basic models of the design-process, and it's worth noting that new paradigms or concepts are more and more often developed not by one author, but by a team of researchers. Majori: 3 I model - Inspiration, Ideation, Implementation [4] and the HCD model [3], the Double Diamond model (British Design Council, 2005), the Design Thinking model (Hasso-Plattner-Institute) [11] and the Design Thinking model (University of Stanford, 2015). All of them include such features as: phased design-process, the consecutive divergence/convergence, being customer- and customer-needs-oriented, and the earliest possible prototyping. According to Pombo and Tschimmel (2005) nowadays it is required for a designer to be both analytical and empathetic, rational and emotional, methodical and intuitive, plans and restrictions oriented, but at the same time remain spontaneous. Some researchers call such thinking, that uses dualistic manner of reasoning, abductive thinking, that is different from the rational deductive and inductive thinking.(Martin, 2009; Cross, 2011; Dorst 2011). The term was first used by an American theorist Charles Pierce San Dersu to characterize a particular method of forming hypotheses based and built on Aristotle's assumptions. The ability to see a phenomenon or a concept from multiple angles and a different perspective – is necessary to improve a creative method of the designer, which would be incomplete without knowledge and skills in the field of design-thinking, and design thinkers possess intrinsic tolerance for ambiguity [14]. "Ambiguity" in our understanding is perceived as both "multiple meanings" as well as completely opposite points of view.

The concept of design thinking (Herbert A. Simon, Robert McKim, Bryan Lawson) as an algorithm of creative thinking for design problems is developing and improving since the early 1980s. Its application in other professional areas of life is being extensively developed and researched at Stanford University these days (Larry John Leifer, Tim Brown, Katja Tschimmel). Tim Brown and his vision of the range of problems to be solved by the designer and his wish to engage the biggest possible number of people into the design process reminds us of the vision of Victor Papanek [16]. The principles of design-thinking are perhaps best summarized by the following phrase: it is a process of "learning by doing" in which new ideas are based on repetitive learning process based on obtained feedback.[27]. To be more specific, it's worth mentioning that this approach was popularized in the mid-twentieth century by one of the most famous designers of the era, Charles and Ray Eames. The notion of "design thinking" came into the lexicon of the designer because of the work of Harvard professor Peter G Rowe [18], but it's worth noting that there were similar developments going on back in the Soviet Union as well. For example, Henry Altshuler [1] with his complex of the theory of solving inventor's tasks, theory of technical systems development and theory of the creative personality development has made a significant contribution to the development of the methodology of creative thinking.

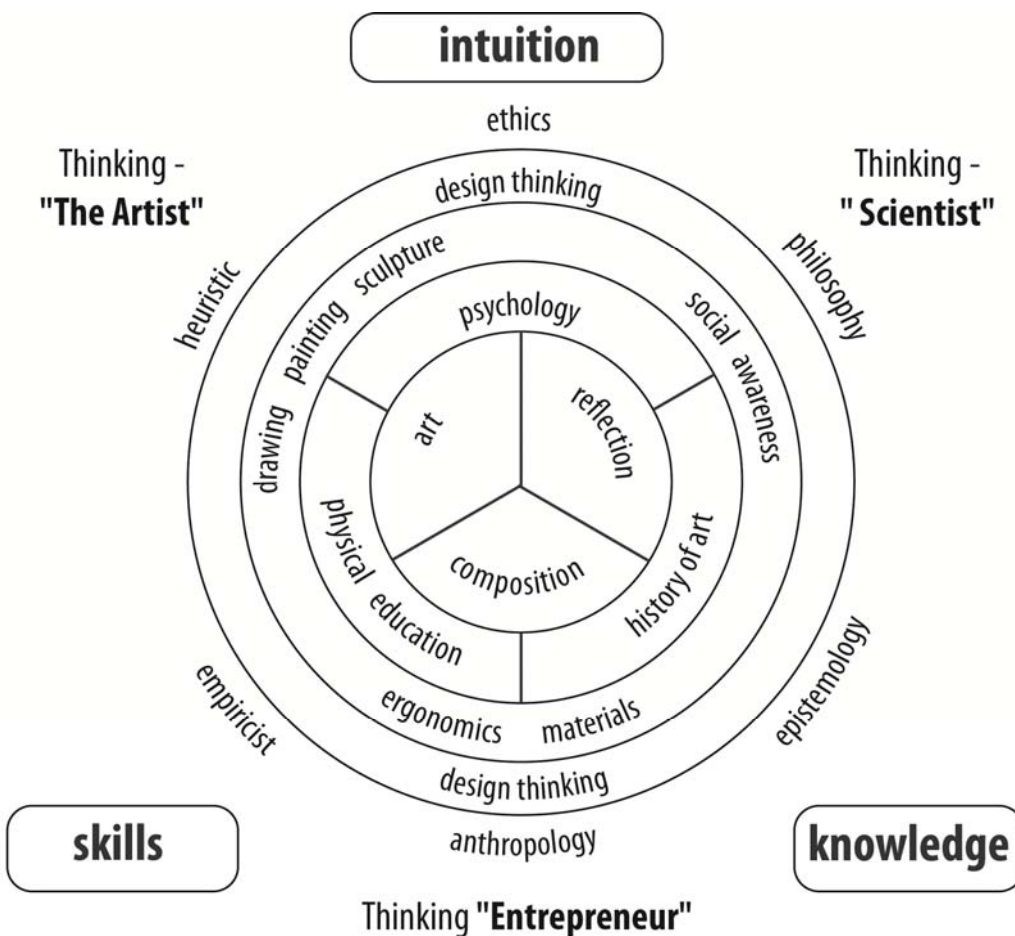


Fig. 7. Theoretical model which connects various tools and design phases together into a methodological structure

Basic concepts that form the reality of design science in Ukraine are "success" and "efficiency", concepts that characterize a designer in Ukraine are critical thinking, stress resis-

tance and perseverance. In a country where most of the population lives below the poverty line, the demand for design science development is missing. In post-Soviet countries, such as Ukraine in particular, the design-science is based on the developments of Soviet art and methodologies (H. P. Shchedrovyts'kyi [20], V. F. Sydorenko [23], O. I. Henisarets'kyi [10]) or interpreting and adapting foreign developments to local realities. However, it is worth noting that the research of modern Ukrainian scientists contains a lot of timely topics within their scientific interests range; various aspects of graphic design are researched by N. Tytarenko, V. Pobyedin, O. Derbilova, V. Lyesnyak, V. Shevchenko, V. Hal'chenko, N. Sbitnyeva, O. Smolyar [21]; peculiarities of creative methodology: — N. Derev'yanko; the concept of design thinking in its culture-invoking meaning and design philosophy — O. Polishchuk ; design thinking in pedagogy practice. — A. Solodovnyk.

We want to put your attention to the theoretical model regarding the distribution of the design tools (operational-skills, analytical-knowledge and psychological-intuition) stemming from the philosophical vision of the world and intuitively organized trichotomy (without any justifications) - body, soul, mind. This exact trichotomy of human personality is closest to the eastern philosophical trends, and is somewhat different from both Christian one, as well as trichotomy built on the view of the Western world. Such hypothesis enables improvement of the individual's creative method and helps to better recognize the range of work tools (fig.7) [8]. Use of such vision in scientific and creative methods of the designer helps with engaging the segments of consciousness that can better comprehend the categories of "social responsibility" and "ethics", as well as more efficiently engage empathy.

Let's provide a prognosis for the development of design science in Ukraine using induction methods and outlining two polar vectors of its development:

- "Humanistic" design which would follow world trends and the trends of "social responsibility", "ecological" and "sustainable development." Hopefully, actual projects would be created based on the international standards instead of just remaining in the virtual environment, as many other works of "paper architecture";
- "Commercial" design. Business-oriented solutions to common problems using methods of design and design-thinking, templates and algorithms. The main clients are corporations, which in their thinking and strategies will copy their Western counterparts but with the delay of 10-20 years.

At the end of this chapter it's a good time to define the main problem at Ukrainian design theory. Anyway it is distinction and a lack of integral research in design theory at all, the separation of theory from practice and lack of interdisciplinary practice. So let me finish this chapter with word of Ken Friedman: the design education we need today is increasingly similar to the requirements of professional education in engineering or, perhaps better said, it is increasingly similar to the requirements of education in health care and medicine. To succeed, outstanding professional design requires a foundation based on science and on research [6, p.151].

6. DESIGN PRACTICE

Answers the questions we have raised, and the main difference between "Western" and Ukrainian people is their focus. Environment molds one's personality, awareness of the possibility of getting feedback only comes to those who got on the path of awareness.

It is impossible to teach someone how to think creatively without the empirical component - that's why it is so important to combine the theoretical and practical tasks. If those practical tasks are really close to real life issues, then designers will be more successful at training and practicing process. Taking into account the Soviet experience of the design-culture formation, it is worth reminding about the foundation of project organizations at

educational institutions (e.g. VHUTEMAH-VHUTEYIN), that formed the basis of the design education theory in solving wicked problems. Larry Leyfer confirms the case for such needs: "In Stanford we started the course subject design (ME310), funded by a variety of companies that pay the cost of materials and services for teams of graduate students to make them feel comfortable working with real industry problem" [12]. The single right method of coming to grips with design thinking is by solving the real life problems and not their prototypes. No lecture classes, unless they are based on the use of stressful situations (time-restricted assignments, limited resources), may develop skills that are formed during the real-life designer work.

Given the growth of interest in design methods, it's worth noting that the basics of creative (nonstandard) thinking should be taught in school, like it's currently done in Finland, but additionally this area should undergo transformations since school education system in Ukraine is far from being perfect. It is based on learning and reproducing information, and is mainly based on Soviet curriculum. Such factors as lack of approval, incorrect or twisted education and unfavorable environment, have their influence on the development of creative imagination of almost every child except the lucky few [2]. The modern school education in the above-mentioned Finland, that is considered to be the best in the world, involves changing the structure of scientific disciplines and, in the spirit of multi-disciplinary approach, focuses on studying of certain "phenomena" at different angles. Therefore we conclude that the most successful creative bodies in Ukraine were formed not owing to, but in spite of the education system.

It is impossible for a teacher to teach "creativity as a way of thinking" within the framework of the practical and theoretical course. The education offered by the state is significantly lagging behind (and will continue to lag behind) the actual trends of design profession. And the reason behind this is the bureaucratic nature of public education, where the need for numerous approvals and permits is constantly getting in the way of innovation. That is why those who consider profession of a designer as an efficient way of achieving financial stability, more and more often turn to private organizations for education, as those are usually founded and managed by the more initiative young people. Anticipating the most relevant development of design education, it's worth emphasizing that the techniques and methods used in the "design-entrepreneurship" and creative thinking in design will also be more widely used in the interdisciplinary practice that is confirmed in the author's following quote: "Although the development of civilization is based on focused specialization of labor, it is the diversification of individual's creative abilities that leads him/her to the more harmonious development" [8]. The above-mentioned opinion is relatable to the position of Larry Leifer "We have to eliminate organizational and procedural barriers and create maximum flexibility to support various activities" [12].

Foreign design practice is constantly revolving around the concepts of "product life cycle", "sustainable development", "social responsibility", whereas in the post-Soviet countries and Ukraine in particular, the notion of "design" is viewed as a sales increasing tool, meaning it is stuck at a consumerist stage or is perceived as an attribute of luxury. Design is for the most part a service-oriented kind of activity where a customer serves as a link between the development of the project and the designer. Naturally, the designers, like any other professionals, are significantly limited by the economic system they work in - they cannot change the world on a whim, they have to please their corporate clients [17, p. 42], whose level of art appreciation and world view almost always leaves its mark on the final product. And that's exactly why "business design" becomes particularly popular. It is a trend, which we have noticed and discussed in our design community just a few months back. It should only be considered in conjunction with the subject design, which involves expenses for the purchase of materials and their processing. Since designers have realized that it is not possible to change the client's line of thinking, they are now leaving the service design (working for a client) and assume the roles of both the entrepreneur and the customer. They create an idea, decide what kind of product they want to make, decide

how to make and later sell it. It is an important trend, since it not only affects the design community, but the manufacturing sector as well. I would also like to add to that using the line of unknown author from the Internet: "Bad designer is the one who does not dream to become an art director." Design business is not only limited to the development and adaptation of the subject design objects, it could also mean creating one's own design studio or a certain evolution from the rank of a freelancer. Relying on student personal ambitions for success, endeavor to grow up as a professional, efforts to be closer to up-to-date technologies, they participate in designers work in one of the following ways:

A) Working in a large company. Suitable for people with low levels of self-discipline. Pros: one can focus on a particular type of tasks, steady income and constant flow of orders. Cons: inflexible work schedule, part of the "net income" is taken by the employing company.

B) Freelance work for foreign customers or companies (outsourcing). Suitable for people with an average level of self-discipline. Pros: One may focus on a specific type of tasks. Cons: income and flow of orders is not always stable.

C) Freelancing - suitable for people with a level of self-discipline above average. Pros: Flexible schedule. Cons: risks.

D) Design business. This new trend is getting popular. Suitable for people with a lot of self-discipline and motivation. Pros: a chance to realize one's boldest ideas, success of the product might create the foundation for passive income. Cons: high risks.

None of the work modes is better than the other. One chooses a comfortable work mode based on different factors. Most practices apply rather established and tested standard methods and solutions throughout their work, while more ambitious and courageous studios tend to experiment with their combinations [15, p. 72]. Traditionally, it is considered that an individual work is a better fit for introverts, and vice versa, work in a team brings more joy to extroverts. But since such division is very arbitrary, and in addition, "pure" psychotypes are rarely found, we conclude that people are at their most efficient when changing the type of activity. The most significant difference between the team and individual type of creative work is pointed out by Andrew Harhadon. In some cases, the success of creative effort within the team model is achieved by an individual working on their own and ignoring potentially valuable past ideas, thus reinventing the wheel (2006). Summarizing, let's emphasize that work in groups yields more positive results; creative teams are much quicker at finding appropriate solutions. "Team work" could also mean being a part of professional communities, which often provides inspiration for new projects and helps reflect on one's work more efficiently.

Overall, we suggest that the work carried out by a creative individual working on his own should rather be characterized as an "art", a "trade", though still within a certain branch of the design, but not the "design" itself. In author's opinion, such work is deprived of novelty and innovation. Although such a conclusion may outrage many creative people, I still believe such hypothesis should be given more thought. Let's make a list of some major issues that design graduates usually face in actual practice design:

1. Inability to communicate with clients, lack of communication skills, knowledge of human psychology. Good presentation often has a profound impact on client's perception of the project. Ability to clearly, in a structured way and reasonably "protect" their own decisions is a necessary skill for professionals;
2. Lack of work agreements and legal knowledge. This skill is especially needed for a designer to help with fraud prevention;
3. Lack of the knowledge of product staging, which leads to disorderly work and possible complications with the completion of the project. If the designer himself cannot always complete a certain project phase on time, doing so together with a client will lead to even more confusion;
4. Ignoring and (or) excessive use of templates and ready-made elements (templates, mockups);

5. In the field of client-based design, it is the client with a questionable artistic taste who usually has the last word.

Ukrainian design studios with their practical abilities, skills and developments have proven themselves as worthy professionals at the world level and are constantly adding to their achievements. The main reason behind it is higher motivation for self-development and improvement. Westerners, being more affluent compared to Ukrainians, are more prone to reflection and theoretical thinking. That is another reason why it makes sense to predict vast development of design practice in Ukraine. With successful attempt at supporting development (maybe even "revival") of design practice in Ukraine, given the government does not hinder it, the industry will develop at a faster pace and will bring recognition to the country.

7. RESULTS

Popular culture, as a product of human activity, has always included the phenomena of trends. In the era of global digital communication, these widespread trends replace consumers ability to think for themselves. Design as a vast industry in Ukraine, today serves business needs as well. And even though it has a dual nature (art + technology), it is the technology side that tops the list of its qualitative characteristics. Technology deprives people of the chance to think, analyze and create on their own. (People still do that, but mostly following the trends). We can also observe a reverse movement: many get tired of technology, deliberately avoiding it. If we want to see the most promising development of design education, we could most certainly benefit from transitioning into communities of creative groups, where people perform the function of the cells in the meta-brain.

8. CONCLUSIONS

Traditional institutions of higher learning, often lacking the appropriate material and methodological base, but in the absence of sufficiently skilled personnel, still try to transfer the design process to computers, requiring students to achieve results in accordance with world standards. This inconsistency reduces the prestige of academic design education and contributes to the weakening of the impact of higher education. Private courses are more efficiently preparing applicants for project tasks with the use of a computer, but usually they do not have the appropriate philosophical and world-class training, which is more common in traditional universities. Therefore, there the designer is turned into an artisan who can not always reasonably stratify the reasons for his decisions, ignores the semantic component of creativity, and in his creative method, he only focuses on trends, and does not dare to create ones by himself. Therefore, development can only be done in cooperation with all participants in the design environment: universities, designers, course teachers and, of course, customers.

As didactics is the centerpiece of science and practice. Only the appropriate synthesis of training and practice can prepare conscious designer, who will be ready for intense changes of new millennium. The author proposes the theoretical model of the interaction of the fundamental designer tools with the main design disciplines that is created to reflect the way of forming an optimal creative method of the designer. After all, only **universality and variety** as a credo, enable the creative person to fully integrate himself into the modern world as a conscious creator of material and spiritual values that are design products.

BIBLIOGRAPHY

- [1] Altshuller, H., *How Creativity Fine science*. 2 ed., advanced. Petrozavodsk, Russia: Skandy-navyya 2004, 208–209.
- [2] Arnkheym, R., *Art and visual perception. A Psychology of the Creative Eye*. Berkeley and Los Angeles: University of California Press 1974, 88.
- [3] Brown, T., *Change by Design: How Design Thinking Transforms Organisations and Inspires Innovation*. NY, Harper Collins Publishers 2009.
- [4] Brown, T., Wyatt J., *Design Thinking for Social Innovation*. Stanford Social Innovation Review Winter 2010.
- [5] Danylenko, V., *Design of Ukraine in the World Context of Art-Design Culture of the XX Century (National and Global Aspects)*. PhD, LNAA 2006.
- [6] Friedman K., *Models of Design: Envisioning a Future Design Education / Visible Language* 2012, Vol-46, 132–153.
- [7] Fursa, O., *Development of design–education in Ukraine and abroad: historical and comparative aspect. Comparative professional pedagogy*, Khmelnytsky National University 2011, Vol-2., 123.
- [8] Habrel, T. *Design philosophy basics. Classification of the fundamental tools*. Bulletin of Kharkiv state academy of design and arts 2016, 4, 8–14.
- [9] Hargadon, A., Bechky, B., *When Collections of Creatives Become Creative Collectives: A Field Study of Problem Solving at Work*. Organization Science 2006, 17(4), 484–500.
- [10] Henysaretsky, O., *Design and culture*. Moscow, Russia: Vniite 1994.
- [11] Kelley, D., Kelley, T., *Creative Confidence. Unleashing the Creative Potential with usall*. New York: Crown Business 2013.
- [12] Leifer, L., *Suite-210: A Model For Global Product-Based-Learning With Corporate Partners*, Curriculum Innovation Awards: ASMEMechanical Engineering Departments Head Conference, San Diego 1997.
- [13] Leifer, L., Steiner, M., *Dancing with ambiguity: Causality behavior, design thinking, and triple-loop learning*. Information Knowledge Systems Management 10, IOS Press 2011, 151–173.
- [14] Minneman, S., *The Social Construction of a Technical Reality: empirical studies of group engineering design practice*. Doctoral Dissertation, Mechanical Engineering, Stanford University, Stanford CA 1991.
- [15] Pallasamaa, J., *The thinking hand*. UK, John Wiley & Sons Ltd 2009.
- [16] Papanek, V., *Design for the Real World: Human Ecology and Social Change*, New York, Pantheon Books 1971.
- [17] Parsons, G., *Philosophy of design*. UK, Polity Press 2016, 38.
- [18] Rowe, P., *Design thinking*. MIT Press, Cambridge MA 1987.
- [19] Ryzhova, I., *Design in technical high schools of Ukraine, Humanitarian Bulletin ZDIA* 2009, Vol-37, 95.
- [20] Shchedrovyt'skyy, H., *Theoretical and methodological research in design*. Moscow Russia: School of cultural policy 2004.
- [21] Smolyar, O., *Features of the formation and evolution of the world and domestic design*. Culture of Ukraine. 33. Kharkiv, Ukraine: Ksada 2011.
- [22] Setkowicz, P., *Is it still worth thinking with hands? Technical transactions architecture* 2015, Vol. 4-A.
- [23] Sydorenko, V., Ustynov, A., Kondrat'eva, K., *Moscow School of Design*. Moscow, Russia: Vniite, 1992.
- [24] Tatiyiv's'kyy, P., *Peculiarities of formation and prospects of design development in Ukraine*. PhD. KNUBA 2002, 12.
- [25] Tschermes, B., *The National Identity in the Architecture of Public Centers of Capital Cities under the Condition of Ideological Determination*. PhD. KNUKA 2006, 13.

- [26] Titarenko, V., *Development of design education in of high schools in Ukraine*. Scientific notes of Ternopil National Pedagogical University named after Volodymyr Hnatyuk, TNPU 2016, Vol-2, 289.
- [27] Tschimmel, K., Santos, J., Loyens, D., Jacinto, A., Monteiro, R., Valenca, M., *Research Report D-Think Design Thinking Applied to Education and Training*, ESAD Matosinhos, Portugal 2015.
- [28] Turchyn, V., *Features of formation of design and creative thinking designer*. PhD. KSADA 2004, 22.
- [29] <http://telegraf.design/dizajn-osvita-v-ukrayini-yak-spravi-j-shho-robiti/>, access: 05.2017
- [30] <https://osvita.ua/> access: 04.2017

AUTHOR'S NOTE

Habrel Taras, assistant at Department of Architecture Basics and Arts at Lviv Polytechnic National University, Ukraine. Member of the Union of Designers of Ukraine. The main area of research: design methodology, cognition and consciousness, ethics and human-centered design, ecological economics, common consciousness.

O AUTORZE

Habrel Taras, asystent i absolwent katedry dizajnu i podstaw architektury Państwowego uniwersytetu Politechnika Lwowska, członek Izby dizajnerów Ukrainy. Zainteresowania naukowe: metodologia dizajnu, percepcja i świadomość, etyka i ergonomia dizajnu, wpływ komputera na twórczość dizajnera, ekologiczna ekonomia, świadomość społeczna.

Contact | Kontakt: taras.m.habrel@lpnu.ua