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IS IT STILL WORTH THINKING WITH HANDS?

CZY WARTO (JESZCZE) MYŚLEĆ DŁOŃMI?

A b s t r a c t

Three tendencies which go far beyond the narrowly understood technological issues seem to currently coexist in contemporary architectural practice. Some architects continue to regard hand drawing as being of primary importance at all stages of professional education as well as of the actual design process. Others, relying on the sensitivity and knowledge developed by their own personal experience with drawing, have accepted new technologies – perceiving the computer as an additional useful tool. At the same time the number of architects and students of architecture, for whom the era which preceded the information revolution constitutes a very distant past and the “analog” methods of imaging are pure exoticism, is continually on the increase. Trying to convince the skeptical representatives of the generation which has from the very beginning been shaped by digital media of the numerous benefits which can be derived from hand drawing – no doubt constitutes a fascinating challenge.

Keywords: *hand drawing, digital models, architecture, art*

S t r e s z c z e n i e

We współczesnej praktyce architektonicznej koegzystują trzy tendencje wykraczające poza wąsko pojmowane kwestie warsztatowe. Część architektów nadal przypisuje rysunkowi odręcznemu wiodącą rolę na niemal wszystkich etapach edukacji zawodowej oraz procesu projektowania. Inni, bazując na wrażliwości i wiedzy rozwiniętych przez osobiste doświadczenia rysunkowe, zaakceptowali nowe technologie – widząc w komputerze dodatkowe użyteczne narzędzie. Jednocześnie stale powiększa się grono architektów i studentów, dla których epoka przed rewolucją informacyjną stanowi odległą przeszłość, a „analogowe” sposoby obrazowania to jedynie egzotyka. Przekonanie sceptycznych przedstawicieli pokolenia ukształtowanego od zarania przez kontakt z mediani cyfrowymi do rozlicznych korzyści płynących z praktykowania rysunku odręcznego – stanowi pasjonujące wyzwanie.

Słowa kluczowe: *rysunek odręczny, modelowanie cyfrowe, architektura, sztuka*

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1. Introduction

During the World Economic Forum in 1996, the President of Microsoft Bill Gates who had been invited to Davos declared that the “interactive computer technologies and virtual reality belong to those inventions whose long-term effects we are unable to predict”. Reportedly, it was precisely in Davos that the concepts “Before Christ” and “After Christ” changed their significance to “Before Computer” and “After Computer” [4]. The scope and rapid pace of the approaching changes were all the more puzzling for the Polish society which ,at the time , was still going through an early phase of a radical transformation and the real popularization of information technologies remained exclusively in the sphere of dreams. The year 1991 can be regarded as a crucial an indeed a symbolic one, for after the abolition of the restrictions by the United States, the free Poland obtained full access to the global computer network.

The specificity of an architect’s profession and the educational requirements in this universal discipline led to an additional acceleration of the process of implementing new technologies. At the same time, young trainee architects and creative individuals open to innovations enthusiastically supported and themselves initiated successive phases of transformation of the traditional designer studio. Last but not least, in Polish conditions, the instant adaptation of computer-assisted architectural design methods was supported by a number of original research papers inspired by a systemic approach. Recognizing design as a process [1], whose procedures consist in processing information, resulted in a natural rapprochement between architects and computer technicians. In the 70’s and 80’s of the 20th century, the Faculty of Architecture at Warsaw University of Technology and the Faculty of Construction and Architecture at the Szczecin University of Technology, distinguished themselves by carrying out incisive research into ways of introducing “the methodology of systemic design with the use of a computer as an active tool assisting the design process”. Yet what still constituted a nearly insurmountable barrier to the practical uses of the new design methods was the drastically small availability of both Polish-made and imported computers [7]. That is why, as has already been mentioned, the 90’s were characterized by a rapid “new opening” of Polish architecture to the computer-assisted design techniques.

2. Computer versus hand drawing

Machines are more and more effective in “aiding” architects; they shorten the time which the latter used to spend on introducing laborious corrections and improvements into the design documentation and on preparing presentations and visualizations. Freeing architects from the above prosaic obligations should lead, at least theoretically, to an unprecedented liberation of their imagination and creativity – thanks to a concentration of the creators on a search for innovative solutions. Apparently, there are no grounds here for a conflict with hand drawing, which has been present in an architect’s methodology “from time immemorial” [2] and which is supposed to ensure to the trainee architect a freedom of individual expression based on knowledge and professional proficiency.

Yet the experience accumulated over the last quarter of a century proves that the natural expansion of the above-mentioned computer-assisted design, is also taking place at the expense of the education of future architects, particularly as regards the sphere of drawing, painting and sculpture. In this context, Andrzej Białkiewicz's paper entitled "Rola rysunku w warsztacie architekta" (The Role of Drawing in an Architect's Design Technique), though evidently written from purely constructive motives, reveals its polemic dimension. Despite the fact that the attacks which undermine the legitimacy of the classical models of education rarely have an open character, a climate of apparent obsolescence and even outright redundancy is being created around the "manual" forms of architectural expression. The best proof of the threat posed by the indiscriminate enthusiasts of digital techniques of imaging is the continually decreasing number of classes devoted to hand drawing. Although undoubtedly the above changes do contribute to the current updating of the educational program, yet at the same time, they lead to compromises which may threaten the realization of the fundamental goals of education [3].

Augusto Romano Burelli, who works in Venice and Berlin, recalls with nostalgia the times when it was exclusively hand drawing that decided about admission to the faculty of architecture. He poses a question: "What should we require from candidates to the modern-day schools of architecture?". The answer is provided by him in the next few sentences. "How can we fail to rediscover that hand drawing is definitely the fastest tool which allows one to halt the trace of human thought, in a way that nothing and nobody can match? How can we forget that an architect's hand is an organ which is in direct contact with his brain, as René Descartes is reported to have said". Unfortunately the above questions are no longer rhetorical. For the process of "deification" of digital tools which is supposed to characterize the inhabitants of the Far East or India, has also affected "us", who according to Burelli – should be protected against it by the legacy of the "Greek Logos" [6]. "It seems that in recent years, we have been dealing with an uncontrolled domination of technological innovations, which has taken on a form of faith in its magical possibilities, particularly among the young (...). The tool, that is a computer equipped with a suitable software, has unexpectedly become a source and inspiration; it has imperceptibly begun to supplement the creator" – writes Mirosław Orzechowski [8].

3. The Contemporary Role of Hand Drawing

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. The smaller degree of saturation with technological novelties is effectively compensated for by us with zealously which is characteristic of neophytes. In most cases, the oldest generation of architects, on whose work and attitude the digital tools have exerted practically no impact, withdraw from pursuing their professional activity in an active way. Yet their testimony continues to be extremely important. Not infrequently the achievements of the luminaries of architecture prove their ability to control in a masterly way every, even "curvilinear" architectural form, exclusively resorting to the use of a "computer built

exclusively from water and fat” – as the human mind was called by Ryszard Tadeusiewicz. In their case, a resignation from the support of digital tools, does not constitute an expression of backwardness or abnegation, but proves that they have been able to achieve extraordinary proficiency within the traditional professional methodology. To senior architects, the key importance of hand drawing at all stages of the process of architectural training and design, is quite obvious. They tend to look for sources of fascination with free form and ecology (whose popularization is attributed to CAD technologies) in the sketches of Hermann Finsterlin, Hans Scharoun, Eero Saarinen, Oskar Niemeyer... [5].

To the older and middle generation of active architects, cooperation “with” and “through the computer” is already an obvious necessity. Yet regardless of whether they accept this fact with an aversion, indifference or else with enthusiasm – the computer remains exclusively a tool for them. For their sensitivity and imagination have been formed, at least in part, in the “analog era”, at a time, when hand drawing and practice of related disciplines had played a significant role. “The first few lines, drawn with a soft pencil, felt-pen or crayon may provide an over-all conception of the project (...) – declares Maciej Miłobędzki. “This ability to “revolve” objects in space, the way one does it on a computer today, is a professional attribute” adds Konrad Kucza-Kuczyński. “I have been sitting in front of a computer ...for the last twenty years, but I still consider hand drawing as a skill which is necessary in our profession. I am not a staunch enemy of computers, but I think that they pose a threat to imagination” concludes Marcin Sadowski [8]. In turn Adam Maria Szymski emphasizes that “from the point of view of analog design and construction, curvilinear forms pose some serious problems”, chiefly as regards their imaging. He therefore postulates greater popularization of digital tools which permit a “full geometrical control of any, even of a most complex shape or architectural form that is being designed” [12]. Yet in tutorials devoted to parametric modeling which he conducts, conceptual hand sketches always play an important role – as according to Szymski, they prove that the student is really in control of the designed form and the set of digital tools that he/she is using [13]!

This is extremely important as for the youngest generation of architects (and especially for students of architecture) elements of an “analog” design methodology often constitute very remote history. “I think that all architects are able to draw; yet some do so more frequently and willingly” declares Sławomir Gzell. But is the situation still the same today? “I think that even those projects which were created in the process of computer-assisted parametric design, (that is those which would have been impossible to implement without the use of computer techniques), had their origin in the drawing “notes” recorded by the creator’s hand. And if it was not so, the young generation would surely treat such projects as defective – avant garde but deprived of a soul” – states Sławomir Kowal [8].

However, one may suspect that the opinion of “our” generation (in the broad sense), differs from views entertained by those who design and admire “digital architecture”. What is more, the testimony of the former should be regarded as particularly important today. For it is precisely the polemic with the opponents that may contribute to the emergence of new arguments in support of the ever present need to take advantage of the architects’ own personal experiences associated with drawing, painting or sculpture and consider them as part of their methodology.

4. Summing up

I have my doubts as to whether indeed all modern-day architects draw. But I am absolutely convinced that they all should do. In my own experience of trying to teach hand drawing to candidates to the architectural profession and students of the Faculty of Architecture of the Krakow University of Technology, I have had the honor and pleasure to cooperate with a group of pedagogues and my own Masters who have never for a moment let me entertain any doubts as to the importance and topicality of the task which confronts us. I am also happy to be in touch with successive generations of Young People who (fortunately) do not let us forget about the pace of changes which take place in the world. It is from those students that I have been able to learn that a contact with a pencil or paints is sometimes no more than a hazy childhood memory, while a proficient use of digital media may in some cases precede the first attempts to use the “archaic” and “obsolete” means of expression. At the same time, it is from among those young people that there arises a new generation of individuals who really do “draw” and who are aware of the sense of continual improvement in this field. However, many student candidates look upon drawing as no more than an obstacle on the way to the much dreamt-of studies where it is the computer that reigns indivisibly. The latter group limit themselves to mastering the “technique of exam passing” which consists in a rather counter-productive compilation of “drawing templates” [11].

Breaking through this invisible barrier, making students realize what a genuine study from nature is, teaching them the ability to synthetize and finally explore unknown spheres of imagination by means of drawing – constitutes a really challenging task.

5. Conclusions

In his excellent book entitled “The Thinking Hand”, Juhani Pallasamaa draws attention to the tendency to separate body and spirit which is deeply ingrained in Western philosophy. In the modern-day world of mass industrial production and expansion of virtual reality, this tendency has reached its climax. People are prone to forget that the civilization which surrounds them is in an equal degree the work of mind and hands; the process of cognitive thinking is also taking place via the hands! “Architectural problems are in their essence too complex and profoundly existential to be solved exclusively with the powers of the mind and consciousness ... The role of this fundamental truth – unrealized, silent and existential – in the work of an architect is universally underestimated...” – declares Pallasamaa, postulating that one should restore to the hands their proper role and function [10].

The threat associated with taking over control of the architectural creation by “soulless algorithms” is not a consequence of continual improvement of the digital tools. The more and more numerous procedures that are used in the sphere of architectural design may and indeed should be realized by resorting to the use of computers. The real problem consists in the continually resumed efforts to reduce the whole sphere of art that architecture regards itself to be, to purely technical issues. Imagination, intuition and a hand holding a pencil, remain

indispensable in the relation: man – machine. Conceptual sketches prove the sovereignty of the choices that are made and not only of the choices suggested by the computer.

Apparently “today we should learn from the future, in exactly the same manner as at one time we used to learn from the past and the present” [9]. Even if this is the whole truth – this future still remains literally “in our hands” and not in the memory of the machines! That is why, it is certainly worth thinking with our hands; they are still able to surprise us.

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