The Animal, Full Blood maybe, but Untamed

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So far yet, even the most advanced technology has not been able to substitute a human, his thoughts, feelings, dreams, longings, visions. It can though, removing need for all kind of effort from our everyday life, surrounding a human with unprecedented comfort, create feeling of peace and security. Task of a computer is to provide assistance, helping in calculations, forming of refined solids, It contains a compendium of knowledge and memory - but not creative skills. So far it's only a machine, with help of which a possibility of creative expression is expanded. It only can solve problems for a human faster and more efficient way, does not have the ability to describe (formulate) problems. Even while providing a support, does it do that honestly? It means, does it support us in those of our doings where we truly need it?

Computers have enormous possibilities of use that are not exploited sufficiently and all the time new generations of yet quicker machines with unbelievable power are being created. Every new type of computer appears to be obsolete and insufficient within a few months. Insufficient for what?

It may seem to someone that this is just a trivial picture of our reality - the constant quest for time. The speed and power of computers increase while the programmes do not keep up with such a pace. Only the same values though could be created on and on, faster, more accurate, of a better graphics quality. The pictures created tend to blur the border between fiction and reality, but only in the final effect.

An architect past the moment of his work creation precisely knows how it would look like in space, eventual 3D renderings are being done nowadays mainly for investor. In connection to such a demand the whole process of work being done on a computer evolved in the direction to improve exactness and clean reading of a project, as well as creation of transparent presentation of designed forms. However, the main phase - the creation process - is neglected. The programmes accessible do not meet othervneeds of the designer. Are not useful in satisfactory degree at preliminary stage of a design - in creation of vision; not to say a final vision, because that is possible, but intermediate, transitional visions, their constant modifications, briefly speaking in design process. What the architect is able to create through the infinite number of lines drawn with a pencil, that is actually the very process of thinking out the architectural form on the sheet of paper, the present state of software destroys through ifs „barbarous" precision. The requirement of providing the exact data put on the designer in the initial phase of creation cannot be fulfilled because in the designer's mind such data is still vague at this stage. There

is a need for a programme which could help the architect to make a better use of the possibilities offered by the machine. Computers work in a different world - the world of numbers; the users conform to the ways of thinking in categories of possibilities and limitations of the programme. Computer aided designing interferes with free and unrestrained creation[1], forces the architect into the deductive way of thinking about the project and makes him omit the reductive approach to the matter concerned.[2] The programmes existing aim mainly at enhancement of drawing formula and presentation and not creativity. Conclusion: draftsmen, who work as accurate as a computer in world of lines and points, expect to be served with each dimension and shape. The computer automation, such as we have today is needed by draftsmen, not by creative artists.

Programs useful in space modelling have been named modlers. They operate by three conventions of reading space[3]:

- Constructive Solid Geometry (CSG) - space building method used in CAD programs based on creation and assembling together of simple geometric solid (primitives) based on algebraic operations.
- Boundary Representation - defining of a solid through defining all points forming it surface.
- Distribution Functions - creation of curved surfaces..

Architects mainly working with CAD programs generally use convention CSG. Modelling is limited to operate on simple geometric elements: flat surfaces, cubes, or created from them derivative solids. A space model is being built on primitives level and simple geometric solids. At present the most close to creative way of architectural form shaping, using space solid definition is module AME of AutoCAD, nevertheless working with it is not convenient enough. What one can choose from are all other solids that can be added and substracted and one can also look for intersections. The serious defect of the program itself is its small susceptibility to modifications of created solids, the necessity to upshape (solmesh) them constantly in order to see effect of your actions, lack definition of a semi-platform as well as limited possibility of spheric surface use. Very often it is better to create a new from rather then to change and rework the existing one in AutoCAD. The solids emerges as a set of broken lines and interpenetrating planes, seen as a grotesque tangle of lines, and not as a univocal form. The architect has no possibility of working on a view of the object in a form of a solid with hidden covered edges. The program does not permit for „easy change of

[1] A. Asanowicz, „Komputerowy model transformacji krajobrazu miasta", II th Conference on Computer In Architectural Design, Bialystok 1994.

[2] Z. Pininski, J.M.Ullman, „Distinction entre estrategias deductivas y reductivas come base de la tecnologia en el diseno racional", Communicationes, XII Congreso Mundial de la Union Internacional de Arquietctos, Madrid 1975, Artes Graf.

[3] K. Butelski, „O podobienstwach pomiedzy konwencjami modelowania komputerowego..."., II th Conference on Computer In Architectural Design, Bialystok 1994.

the proposal and for instant „replay" of what the effect of any proposed change may be, and prohibit the sort of instant interaction that we humans enjoy in and with our environment when we decide just to turn our heads."[1]

The evolution of the software must head towards free from creation, towards sculpturing or moulding like in clay rather than assembling elements from blocks.

Architect is a creator of a form, in space. Visions developing in his mind do not represent a drawing as on a flat sheets, they are more close to a scale model. In this moment arises a problem in transformation of visions. For making a scale model we could known all its dimensions before constructing them, in the same way as in creation 3D objects in AutoCAD. In creative process often architect discouraged with difficulty in reproducing by a computer of a more complicated shapes simply gives up, what in a large degree makes the form itself less attractive - „It takes too long to change things, and it takes too long to redraw, and many shapes are so hard to construct and draw on the computer that we don't try"[4]. The ideal solution would be a program similar to modelling in clay or plasticine. Earen better if one could give certain dimensions and like a sculptor extract out of that space everything which is not our building. On display to facilitate such a way of design should be three projective plane and a mane view perspective or axonometry with light and shadows. Extracted or added shapes should be flexible - that is by Beziera lines their shape should be changeable. Program gives possibility of immediate evaluation, analysis and modification. It must in interactive way change (transmute) created form into plan, section and front view. That is the way of classic architectural practice.

There is no such program while computer with its all limitations has a dramatic influence on creative architect contiouness, and shape of design.[2] It night give definitely negative effect.

The biggest problem is that we deal with computers of increasing speed and with „user-friendly" and „useful" software, while there is no programme, not necessarily very fast, which could be adapted to the structure and needs of the creator. Such a programme should provide the real perspective of cooperation.

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[1] R. Glanville, „Representations Fair, Honest and Truthful", II th Conference on Computer In Architectural Design, Bialystok 1994.

[2] J. Ullman, „Od projektowania sekwencyjno-cyklicznego do projektowania iteracyjnego", I th Conference on Computer In Architectural Design, Bialystok 1993