LOCAL VALUES in a NETWORKED DESIGN WORLD

ADDED VALUE OF COMPUTER AIDED ARCHITECTURAL DESIGN

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Statements for the workshop

Present and Anticipated State of Local and Global Information in Creative Work: In Writing, Composing, Designing and Drawing

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Local and Global Information in Writing

I am a correspondent of three Polish journals: the oldest CAD journal “CADCAM Forum”, the new one “Magazyn CAD”, and an architectural journal “Architect.” Creating an article takes me a week or two; writing a scientific paper takes one month or more. I can estimate that I usually spent 80% of that time searching information. Writing scientific papers or journal articles, I am dependent on both local and world-wide information. The contribution of local data varies from 0% to 100% of total information, found and used for composing an article.

Here are two examples:
1. I was searching for three months for information about engineering portals in 2001 (i.e. only global, world-wide information). The results were five articles written during two weeks: four published in “CADCAM Forum” (for example: www.cadcamforum.pl/archiwum/2001/a0701.html), one in “AEC Forum” (www.aecforum.pl/archiwum/nomer_04/portale/index.html), and a table published in “AEC Forum” web site (www.aecforum.pl/archiwum/nomer_04/portale/tabela.html). Summing up statistically: searching global information consumed 83% of total time for preparing any of these articles. Local data was not applied.
2. Similar situation related to preparing two articles about local regional architecture for Polish journal “Architect”, can be summarized as follows: searching local information consumed 70% of total time for preparing any of these articles. Global data was applied marginally only as a background for emphasized local data.

Summing up: writing activity depends on both local and world-wide information. I access global data mainly via Internet, as it is more efficient and less time-consuming than searching information in traditional libraries. I access local data locally, searching them in libraries, working on-site and complementarily looking for it via Internet. I do not regard World Wide Web as a main source of local data, but I believe that it plays a
great role in searching and verifying a collections of supplementary data.

Besides, I found computer to be a very efficient tool for collecting and managing data. I usually look for inspiration in World Wide Web, looking for article concepts and extracting a scientific material, concepts of article composition, methods of analyses, elements of style and other information.

**Composing and Designing**

I am profoundly convinced that composing and designing are effects of experience, of creative thinking over the subject of composition, and of recurrent reshaping a composition or a design. I believe that excessive relying on external “sources of inspiration” slows up the design process, distracting a designer. That is why I avoided to spend too much time on exploring local or global data as “sources of inspiration”. My creative attempts to compose designs (in opposition to writing and composing articles) do not rely on long-term, intensive searching of architectural data.

Unfortunately, although I do not rely on local and global inspiring data, many architects more obviously ignore the role of such data. During my three-year work in architectural office “Profil” in Bialystok (designing swimming pools, public and factory buildings) I have not noticed any attempt to look for inspiration via Internet. All we designers mainly focused on efficiency of design, so we avoided to perform any time-consuming activities, even if they seemed to inspire and enrich design work.

Summing up: Many architects, bothering about the commerce and the efficiency of generating technical drawings, are missing value of global information and focus strictly on the isolated design. Sometimes they even miss local context, focusing on the building item. I was very surprised with this observation, as I had previously believed that there should be the reverse situation rather (i.e. that architects tend to miss local context and focus on global inspirations).

My own design experiences allow me to state, that:
- my daily design work depended marginally on global information, in opposite to the writing articles and papers;
- I accessed scientific data for writing mainly via computer, in opposite to accessing data context for designing (mainly from reality, sometimes from traditional media);
- I found computer to be a powerful tool, but I claim that “commercially-oriented” designers make use of no more than 5% of potential of present computers;
- my inspiration come from many sources, but design inspirations come from reality rather or from traditional media, while writing inspirations come from the Internet;
- I focus locally in design; I focus both locally and globally when writing.
Drawing

90% of my design work in the architectural office “Profil” in Bialystok was technical drawing. It was because we were designing some factory buildings and swimming pools, reworking the same technical drawings many times in order to match mechanical and construction designs (changing steadily). Technical drawing did not depend on external information so much, with one exception: I was systematically looking the Web for examples of details and unconventional technical solutions. Designing artistic details were inspired by commercial catalogues rather, because all details had to be relatively cheap, tested and easy to montage.

Local and Global Information in the Future

For a decade many software vendors have been anticipating that architects should change the way they worked. Specialists used terms geoengineering, TDM, PDM, EDM, EIM, PIM, EEM, PIM, SBM, BLM, ILM, architectural portals, ASP services etc. But, 80% architects are still using AutoCAD and ignore advertisements and technical prophecies.

But, in my opinion two tendencies point at the future use of computer technology and information. First, every year I can see more and more architects working everywhere with laptops. Even students start working with laptops. Laptops allow to derive information from reality and from traditional media rather than from the Internet. I could see students in our university library, scanning pictures with their laptops.

The second tendency is that there are more and more software for conceptual design on the market. The examples are: Piranesi, Nemetschek D-Board, Autodesk Architectural Studio, @Last Software SketchUp, and few other pieces of software. Such pieces of software are optimised to work with external information from Internet, from reality and from other software. It allows for exploration both global and local design.

Considering this, I hazard a guess about the future use of local and world-wide information. First, I can distinguish between technology advances (enabling efficient usage of local and global data) and mental habits and commercial stress (limiting architects with exploration of external information). These two groups of factors have opposite influence on design process:

1. I think that technology (portable computers, software for conceptual CAD) already enables and will be enabling more efficiently acting with local and global information. There still will be passionate individuals, who will creatively explore potential of information powered by technology.

2. But, in opposite, social and economical limitations of a modern society are going to disable advanced, creative usage of digital technology and information. Schools, universities and architectural offices tend to be commercialised factors for production of market products. Speed of production steals time for free, creative exploring media and experiencing inspirations.

Summing up: I believe in the poverty of technology, but I am afraid that this poverty will hardly benefit stressed users.