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The Icon of City in Digital Culture

»You slay the victim with technology, and resurrect the victim through art.« Thompson, W. I.

1. Introduction

The simple principle of information technology and thus digital culture is symbolic communication. Dealing with the city as an icon in digital media and contemporary electronic popular culture could be contested for several reasons:

- First, the key elements of information technology are not visual; how can one therefore speak about visualisation, presentation, image or visual strategies?
- Second, popular culture is surely ephemeral, but new media are truly quite »new«, meaning that research of city as an icon of new media would be easier if tackled from a longer time perspective.
- Third, information technology, the World Wide Web and mass media and their interfaces are not only carriers of visual culture but also means for expressing social, psychological and political motives.

Icons of this new landscape and its variations are reflected in computer networks, home pages, advertising campaigns, TV images, as well as virtual reality (VR), computer games, digital photography and film, on DVD, web societies and virtual cities.

2. Living in cyberspace

Space is an essential element and metaphor of living, however terms such as cyber-space, introduce new possibilities of living, spatial presence and activities within.

»Most of the cyberspace appeal lies within materialist angst and loneliness« says Margaret Wertheim, and continues »by making a collective space where the self can experiment and play with others, cyberspace creates a parallel world that in a very real sense is a new cosmos of psyche.«[1]

The truth is that mirroring of urban environments into the unimaginable series of web rooms, chat rooms, databases, forums, web games and virtual worlds, in reality performs as a psychosocial sandbox.

If the World Wide Web would be given a three-dimensional it would become a real parallel world, as was predicted by William Gibson and is in fact feasible with e.g. XML and real-time technology. However the resolution of visual information is still not high enough to instigate doubt in the legitimacy of electronically produced images or to replace the physical world with the virtual. The feeling of real presence in cyber-space still has to be worked upon.

At present the web is visually still rather chaotic and diverse, better resembling a collage, than a clear semiotic system. Some designers try to create a more resilient feeling of presence and clarity in space – for example by repeating colours, images or interactive buttons, and with visual uniformity of particular domains.

Nevertheless, strong identification of users with existence in cyber-space can be recognised: although experiences occur on the screen, the latter dematerialises during the process of creating the metaphor of virtual environment. In the system the viewer becomes the active user, moving and directing in virtual space, thus increasing the sense of presence; a resident (citizen) in the physical environment (city, country) becomes a resident (»netizen«) in the web, virtual space.

The creation of spatial sensitivity on the web is rooted in known metaphors for spatial orientation and motion: in modernist tradition the future territory, which just like the screen, lies before us. Moving forward expresses progress and emphasises the significance of sight, but diminishes objectivity: remnants of the virtual environment are only what is before the viewer, literally what is »before the eyes« (or the nose), an environment in which one can move, orientate oneself and build, control and manipulate.

Navigation systems, such as Virtual Tourist or the geographic information system »T-Vision« designed by Art+Com, are interfaces that enable their users to travel all the way to the level of streets; on the example of streets in Berlin, T-vision enables links to data obtained from satellites in real-time, film archives or similar sources. Travelling through time or space is possible using data, which is stored or simulated, thus giving a sense of continuity between virtual experience and real space.

Jevbratt concluded that: »When navigating the web through the database, one experiences a very different web than when navigating it with the »road maps« provided by search engines and portals. Instead of advertisements, pornography, and pictures of people's pets, this web is an abundance of non-accessible information, undeveloped sites, and cryptic messages intended for someone else...The interfaces/visualizations are not maps of the web but are, in some sense, the web. They are super-realistic and yet function in ways images could not function in any other environment or time. They are a new kind of image of the web and they are a new kind of image.«[2]

3. Images of city in digital culture

In his book »The History of Civilisation« Ferdinand Braudel points out that civilisations can always be positioned on a map – when speaking about civilisation we are therefore speaking about territory, space and its boundaries. In modern globalised society geographical boundaries are being erased, meaning that maps are becoming blurred; maybe this truly suits the late capitalist market, which arguments such generalised space with manipulation and flow of capital.

Saturation of mass media caused increased distrust in printed media and television, which can be understood as an indicator of general crisis in representation and visualisation. The flood of computer-generated worlds and simulations have triggered fear of loss of real territory, a feeling to

which the hygienic, anaemic aesthetics of advertising added its share, whereby virtual worlds enter real worlds on TV screens. Attempts at using artificial intelligence, neuron networks, bio- and nano-technology and the physics of particles, represent the plea for more humane, organic logic in the virtual environment.

Cyber-geography is an attempt at representing the structure of virtual environments and simultaneously an attempt of showings how it functions. Web pages host a myriad of excellent services and directories: »Internet Cartographer« (Inventix Software) is a tool, which draws web surfing and »Map.Net« is a visual directory that uses two-dimensional databases of maps and three-dimensional flights across urban landscapes. Categorised division of the web can be seen in the »Open Directory«, which depicts space by using »Visual Net« (Antarcti.ca) technology.

Before we answer the question of visualising digital forces, fields and flows, it is worth mentioning that the term »virtual«, despite numerous erroneous definitions and myths about cyber-space, above all implies the organisation aspect, while »actual« or »physical« pertains mainly to structure (e.g. represented by diagrams).

Today visualisation of any space, environment or object is an aesthetic question, since differences between near/far, inside/outside, time/space, body/soul, real/imaginary, cannot be easily defined; in digital culture many physical properties have been replaced with meta-properties (meta-symbols, meta-spaces...); if we speak about visualised form, we also have to consider, what is its anti-thesis.

Visualisation means the translation of quantified data, which are not visual (e.g. trends or motion of stock exchange indexes) into visual form, whereby all data uses the same numerical code. Visualisation is a sub-set of depictions and copies in which quantitative data is translated into patterns and structures and then changed into visuals.

Dynamic visualisation of data uses animation and interactivity; it is enabled by digital technology, graphic user interfaces, databases, navigation space and simulation – in short, it is a new cultural phenomenon. Large sets of data and data in real-time can be visualised or copied from one representation to another (e.g. image to sound, sound to 3D space).

A point of interest is that many artefacts of the new media tackle the irony, which can be led to by shifts in copying, representation, maps or visualisation – one of the recent projects for example proposes sightseeing in Paris with the help of a map of London. As a rule, narrative depictions in art are images of people, environments, objects etc.; iconic representations are images of abstract 3D animation, graphs and other types of data. On the World Wide Web we can find both types of representation of cities: narrative ones apply to virtual cities, that are web duplicates of physical cities, while iconic representations of cities deal with web communities and their »cyber-urban« formations (e.g. representations of data bases, such as web-transport, stock exchange indexes, purchase of books on the web or weather forecasts).

Although it seems that the logic of cyber-space and its representation are quite new, it nevertheless owes a lot to the Cartesian grid; just as the renaissance diagram reduced three-dimensional space into its two-dimensional image, cyber-space reduces two-dimensional sets of coordinates into series of binary codes.

Computer modelling enables architects three-dimensional representation of buildings or space with possibilities for simultaneous work on two or more projections, 3D spatial models or the object itself. The object and space are a collection of commands and not only a result of the projection sequence. Instead of a final quantity of representations, which depict an object or space, limitless quantities of discrete elements are at hand that can generate limitless quantities of desired representations.

4. The aesthetics of cities in the new media

4.1 The aesthetics of cyberspace

The term »virtual« defines everything outside the grasp of real; *virtuality* exists as a force and not directly as a space. Digital technology operates on the principle of symbolic communication.

Key elements of information society are not visual. How can we therefore describe visual representation and strategies of digital culture and its manifestations – web communities, virtual cities or hybrid urban environments?

Virtual environments encountered on the World Wide Web and digital media are rather nihilistic (consciously or not) assume the end of organic life: flawlessly clean architectural surfaces, sharp, shiny planes and clear edges or contours are all standard aesthetics of virtual environments, into which complicated organic (even human) forms venture very seldom, and even then it seems that they defile the entire image.

However even such abstract, idealised forms don't offer anything essentially new and don't exploit the potential provided by new spatial dimensions; mostly they depict urban space and community according to patterns of known terminology and metaphors: conceptual novelties appear very rarely on the web or even in commercial visualisations.

Lev Manovich [3] proposed several new formal concepts, namely: distributed presentation (e.g. web protocols and neuron networks), emerging presentation, variable (in animation software the form appears as a set of parameters) and result of capturing still unrecognisable dimensions of reality (e.g. in GPS mapping of motion).

Representations of cities in digital media still under-utilise possibilities of meta-media that contain language and meta-language; traditional media structure for example notes and depicts city on film, audio recordings or architectural imaging, while computer software enables the user to change the structure itself.

The logic of meta-media fits in nicely with other aesthetic paradigms in contemporary art (e.g. remixing cultural contents and forms in single media, remixing media in the space of global economy). Digital film also saw several projects, which successfully researched the potential of meta-media in imaging of contemporary city. In his depictions of urban places in Los Angeles Steve Mamber enabled the user to copy the film into a matrix of frozen images (film sequences), thus inscribing time into space. In another pro-

ject he reconstructed film architecture from the 2D film screen into a 3D navigation space, which is opposite to the procedure used in computer animation.

An interesting project was done by the group Art+Com titled »Invisible Shape of Things Past«, which copies old shots of Berlin into new spatial structure; everything happens in a 3D navigation space, which is in fact a reconstruction of the city.

Urban space in computer games and virtual cities, such as Virtual Helsinki, allows the user to research the city by using the web. Typical for such spaces is the miniaturised camera in mobilised »virtual camera« in computer animation: instead of fixed, previously prepared images of city prospects, a mobile camera is operated and at the disposal of the user – especially in combination with the 3D spatial model in real time. Instead of fixed images obtained by using web cameras (Webcam), new possibilities for representing the city emerge, which use mobile video cameras, wireless connections and views provided by the user. Mitchell states that: »... Electronic images of the city will seem less like digital descendents of Vermeer's view of Delft and more like retinal traces from Stephen Dedalus in motion.«[4]

4.2 Cyber-realism

Although cities on the web don't have materialised nature in the real world, the obvious effect is that the effect of virtual cities and digital multimedia plans of cities on the web is much greater if they reflect on real places or their electronic appendages.

Why is the model of city such a common metaphor in cyber-space?

The brain builds images on the basis of metaphors, while digital media help in expressing contents of imagination and transform mental images into user interfaces. If the model of city is the foundation for visualising data, this metaphor will prevail in structuring of data and the passage of the users thinking and imagination. The model of navigating »in person« surely simplifies understanding of events on the display, thus also explaining the success of web pages, such as Virtual Tourist, De Digitale Stadt, T- Vision, Alphaworlds and the increasing quantity of representations and simulations of city on the web.

As put by Allen: »One of the curious aspects of digital technology is the valorisation of a new realism. From Hollywood special effects to architectural rendering, the success of the new technology is measured by its ability to seamlessly render the real. Even the so-called VR has not so much been used to create alternative realities but to replicate those already existing.«[5]

Realism lost its monopoly in electronic media ages ago, but why does it remerge in the 21st century? Cyber-space, as an interactive digital simulation of the environment, which is based on image (VR) or text (Multi-user-domain= MUD or MUD object oriented= MOO), has ceased to relate to utility or physicality of space, which it represents. Nevertheless, virtual environments are full of structures that are reminders of physical environment; apparently simulation of physical environments (e.g. textures and surfaces) is the priority in design of virtual environments, unless the subject is an ar-

tistic project. Expectable forms in virtual environments with interfaces that enable quick navigation are based on buildings with four walls and an entrance (e.g. MUD and MOO).

MUD domains built on principles of actual models of physical objects enable simple navigation, directing and memorising of instructions. »JupiterMOO«, developed Paul Curtis, is based on the layout of the XeroxPARC (Palo Alto, California), and integrates so much details that its users easily understand the place even in the actual, built complex.

Most virtual environments stick to banal versions of renaissance perspective, thus giving the wrong impression about design creativity of cyber-pioneers. A similar problem can be seen in architecture, which doesn't distinguish differences between reality and its representation, also unfortunately reflected in various architectural presentation techniques. If we did in fact have realistic simulations and could predict the image of buildings before they were completed, according to market logic, we could avoid many expenses in the architectural creation process.

However such simple representations become problematic, if we recollect that the experience of architecture, as well as spatial and time perception, consists of numerous mechanisms, such as peripheral sight or sight convergence. All should be contained in a virtual camera, but much too often the specifics of comprehensive visual and bodily aspects of perception are neglected. Similarly a certain quality is neglected, an ingredient that in the past gave architectural visualisation sincere conceptual power: necessary level of abstraction and distance between the object and its image.

Andrew Benjamin often stresses that abstract unchangeable forms suffer from the ontology of immobility, which is a far cry from the ideal of unlimited speed and motion in cyber-space.

5. The digitalised city – Hybrid

Science fiction has always projected that new technologies would change our environments, but during the process society would change as well; the electronic revolution facilitated the latter.

Cyber-space is a metaphor of »space, which isn't there« or »any space«; interesting enough, precisely such anonymity and omni-presence has for several decades been reflected in architecture, which lacks feeling for physical, spatial placement. The world is over-flooded by vast shopping centres, megalithic office blocks, airports, leisure parks and artificially created »nature« zones or sterile reconstructions of historical settlements, all acting as signs and not spaces, above all they are not positioned in actual time and place. Urban architecture (urban design), which should provide the formal framework for space-time events, is increasingly becoming a form of corporate image and marketing.

5.1 Transgressing space

Just as the city id not an expanded village, even the netted World doesn't operate as a global village or virtualised supra-national state; above all it is a new societal form, a hybrid between physical and electronic space. A good demonstration of possibilities perpetrated by this new urban sys-

tem happened on February 15th, 2003 during the anti-war protests, which grew into an event of global dimensions that was simultaneously supported by an abundance of video-films, photographs, telephone calls and electronic mail, all taking place on the World Wide Web.

When virtual environments are used to complement physical space (for example with tele-presence in real time or visual super-structuring of audio information of telephone calls), a new form of environment emerges, coined *augmented reality* by Lev Manovich.[6] This is an important form of simulation and representation of data in real time, whereby real space or the object are tied to their representation. Since augmented reality ensures ties between cognition, technology and the environment, it is a more secure appendage of our perception and sensory world, as well as interpretation of the environment, than virtual reality ever was and whose role it is gradually replacing.

5.2 Electronic networks

The result of spreading urban nets, taking place on built urban environments and across electronic networks, is hybrid urban space, in which physical space is complemented with information.

Ideograms representing the historical city are images of closed, protected, limited territories, while the typical ideogram of modern city is in fact its transport network with the idea of motion. London for example can be recognised by its ideogram of the subway system and Los Angeles by its highway system.

By locating points on the map and a GPS or similar system pocketsize electronic guides enable orientation in cities. Electronically generated coordinates in cities are useful if we have access to a geographical information system (GIS), a database built on geographical coordinates. An example of such a system is the electronic city plan, in which street corners and crossroads are determined as nodes, i.e. their coordinates, and streets themselves represent links between these nodes. Graphic software can change this information into electronic maps, which can be viewed on a display (e.g. Mapquest). By combining GPS and GIS receivers we get a navigation system for motorcars that use a screen to show motion, give directions and calculate shortest voyages.

To orientate in architectural space databases containing digitalised layouts and 3D models are used, instead of plans drawn to scale. The FM (Facilities Management) database for example provides information about spatial configuration, ownership of property, use, state of interiors and utilities in buildings and services. Spatially indexed databases can be used for any kind of guidance through any territory and can also contain texts (e.g. spoken guidance in given situations), sound or other forms of electronic information. GIS and FM systems, spatial meta-data, connected technologies and the electronic stage can easily develop into an important field of urban development, as well as their digital twins.

Electronic networks are simultaneously indicators of societies obsessed with control systems. The Global positioning system (GPS) consists of twenty-four satellites orbiting the planet on six orbital planes, meaning that physical events occurring at any point of the globe can be monitored. Since every spot on Eartn has been scanned and digitalised, *terra incognita* has been reduced to a metaphor. Photos taken decades ago by Apollo showed Earth as an object that can be electronically controlled; today commercial satellites »promise global transparency for the first time by offering precise, quick information about important events«[7], while their military relatives are even more capable.

6. How will these trends influence development and planning of cities?

If we recall the manifest with demands for scrapping planning (non-plan), published in the sixties by Reyner Banham, Paul Barker, Peter Hall and Cedric Price in »New Society«, the rationale of strictly planned cities and urban planning interventions (e.g. Haussmann's boulevards in Paris, Paris after Napoleon III etc.) would always reflect the lowest level of democracy in an urban environment. Contemporary architecture nevertheless tries to respect conditions of hybrid urban space and combine serviced mega-structures with instant architectural elements, the latter designed by inhabitants themselves.

Since the introduction of electronic payment of road tolls, electronic navigation systems for managing property, electronic control of occupancy of parking lots, automatic signposts, flexible work space and day-to-day use of lap-top computers instead of office desks, the fact that urban society has undergone an electronic revolution, has become a reality.

As Branwyn put it: »Technology will always develop as society decides what it's to be used for, not necessarily what the designer or visionary had in mind.«[8] Architects are not the only ones determining functional and symbolic aspects of space. The role is incessantly also being played by computer programmers.

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Notes

[1] Wertheim, M., 1998, p. 47.
[2] Jevbratt, L.
[3] Manovich, L., 2003.
[4] Mitchell, W., 2003.
[5] Allen, S., 1998, p. 243:
[6] Manovich, L., 2002.
[7] Baker, J. C., O'Connell, K. M., Williamson, R. A. (eds.), 2001, p. 1.
[8] Branwyn, G., 1998, p. 332.

Illustrations:

Figure 1: MVRDV: Metacity Datatown,
    http://www.mvrdv.archined.nl/datatown/index.php
    The city as visualisation of data, 1999 © MVRDV
Figure 2: Asymptote: Virtual Reality Environment, New York Stock Exchange – virtual stock exchange,

New York 1997-2001; Approaching the Future –
The Asymptote Experience (NAI)
Published with permission by The New York
Stock Exchange
Figure 3: *Lev Manovich: Soft Cinema, Ambient Narrative,*
digital film (sequence), 2003 © Lev Manovich
Figure 4: *Asymptote: Interior of the New York Stock Exc-*
hange, New York Stock Exchange – the wall as
the screen, New York 1997-2001, Approaching
the Future – The Asymptote Experience (NAI);
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Ivan STANIČ

The Phantom Menace of City in Graphic Novels

1. The popularity and unculturedness of comics

Comics. A series of pictures with texts. Spoken words or thoughts of the depicted people are usually added as clouds. In older comics or those, where additional explanations are added to reinforce the narrative, texts are added next to or below the drawing. The drawings and texts complement each other. The narrative is read and observed. Series of drawings without texts are also possible, similar to those in the pre-historical cave wall paintings that actually depict motion, success, fears and victories. The Dance of the dead in Hrastovlje [1], Trials and tribulations of Christ seen on many hills in the Slovenian countryside [2] or decorating walls of churches, are actually drawn narratives. Commonly with a definite, directed teaching, for the illiterate. They are often perfect depictions of morality, sometimes even the living environment.

Today comics are one of the many visually acceptable and/or easily understood creative fields or media for communicating narratives. In societies where only the written or (properly) spoken language is valued, drawn narratives are clearly seen as less valued communication forms. In societies where comics are accepted as a legitimate form of expression such products are known as graphic novels, placing them alongside other fields of cultural creativity. Today comics often take on the dramatics, settings and iconography or language typical for films, although the latter is a much younger form of communicating messages. However the lack of necessary realism, possibility for selection, right to reduce (in the sense of the narrative) are typical in comics, thus (directly) affecting the reader. There are no special effects in comics, except classical effects of drafting, lately also computer-generated renderings. They are not necessary; we are dealing with a drawing, which is an effect in itself. Emphasis is of course given to the visual component, since there is no graphic novel, or film for that matter, without pictures.

In Slovenia graphic novels are only now gaining in recognition, although they have always been a recognised media of artistic creativity. Single-strip comics have been printed in daily newspapers since their advent. Older readers may recollect Gospod Kozamurnik, while middle-aged readers knew Zvitorepec, Trdonja, in Lakotnik, drawn by Miki Muster. The magazines Pavliha, Stop and Tribuna held the banner during the 70s. Writers that participated with artists were Milan Jesih, Marko Švabič and Stojan Černigoj. Somewhat in the spirit of Robert Crumb and his hippie ideas, anti-urbanity, political incorrectness and declared free love the Slovene cultural scene was spectacularly penetrated in 1977 by Kostja Gatnik with his collection of comics drawn on various themes, the famous Magna Purga. In the introduction Igor Vidmar wrote: »... the only bad aspect of this book of comics is ... today and never again«. Indeed, for a long time there was nothing. Attempts by the group CAC in the early 80s [3] didn't provoke much national enthusiasm for comics.

In the other Republics of former Yugoslavia circumstances were different. Comics had a legitimate right to exist there. In protest against the overbearing quantity of imported older »pulp« comics, generally printed in weekly magazines for the younger generations, e.g. Phantom, Superman, Mandrake, Flash Gordon and Johnny Hazard or translations of Italian comics predominantly dealing with themes corresponding to spaghetti westerns, such as Commandant Mark, Big Black, Zagor, Ted Viler etc., in the early 80s publishers began to intensely magnify the scope of comics production. Thus they organised serious exhibitions, workshops and competitions. They even published comics drawn by domestic authors. This was also a time of vigorous publishing of translations of the World's best graphic novels artists in specialised magazines (Bilal, Herman, Hugo Pratt, Moebius, Milo Manara, Milazzo etc. in the magazines Stripoteka, Stripart, Spunk, Gigant). When one of the awards in a competition organised in 1988 by the Serbian student's magazine NON was taken by Marjan Amalieti, a distinguished Slovenian architect and illustrator (for the graphic novel Seven fathers of Nena's child), the explanation read »we were truly surprised by this completely unknown author ...«, although he was indeed one of the most important Slovene illustrators during the 50s and was said to be under (political) scrutiny.[4]

Pre- and post-independence comics, published in the magazine Mladina, widely opened possibilities for comics artists in Slovenia, e.g. Hardfuckers or The Last war by Zoran Smiljanić [5]. The author mercilessly dealt with stereotypes of Slovenian identity, such as roadside chapels, the mountains, idyllic family farms, as well as known xenophobic fears about the poor and foreigners (basically Slovenian citizens of non-Slovenian ethnic background), usually with both simultaneously. Recently authors gathered around the group Stripcore and the magazine Stripburger enabled important advancements in graphic novels. Today there is hardly any serious Slovenian daily newspaper that doesn't carry at least one single-strip comic, at least on the pages dealing with entertainment. There we can recognise certain urban icons, such as street lamps, benches, traffic, buildings etc.

2. The narratives and motif of city in graphic novels

The renaissance romantic Luciano Laurana drew three famous paintings of the ideal city and showed types of buildings and principles of composition, which should emanate the spirit of the time. A condensed thought describing his