

T H E H Y B R I D C I T Y
T I A G O A N D R A D E S A N T O S
A B S T R A C T

History taught us that prophecies never achieve the predicted degree of reality. Imagination is always bound within the range of its possibilities and in 1975 we predicted that by the year 2000 we'd be building on the moon, have we?

Our leaps into the future have become more humble. Speed made time and space collapse and we are beginning to build somewhere that is anywhere, and anytime. Cyberspace a second home. and our second city. A "consensual hallucination" has led us to share a common space that is no place.

In 1993, William Michel wrote that the *cybercity* would be the capital of the 21st century. Our desktop screen has become the window into a city that is being built with each "click". Technology has showed us what we can do, and if "man realises technology is within reach, he achieves it".

There's a gap caused by technology we should learn to connect. Generations are separated by those with computer literacy and those without it. Parents try to educate kids that are too technologically evolved for their comprehension. Youngsters are learning to negotiate the fluid transitions between the material and the digital and are living in both worlds. Like Alice "through the looking glass" we visit constantly our fantasy world on the other side of the screen.

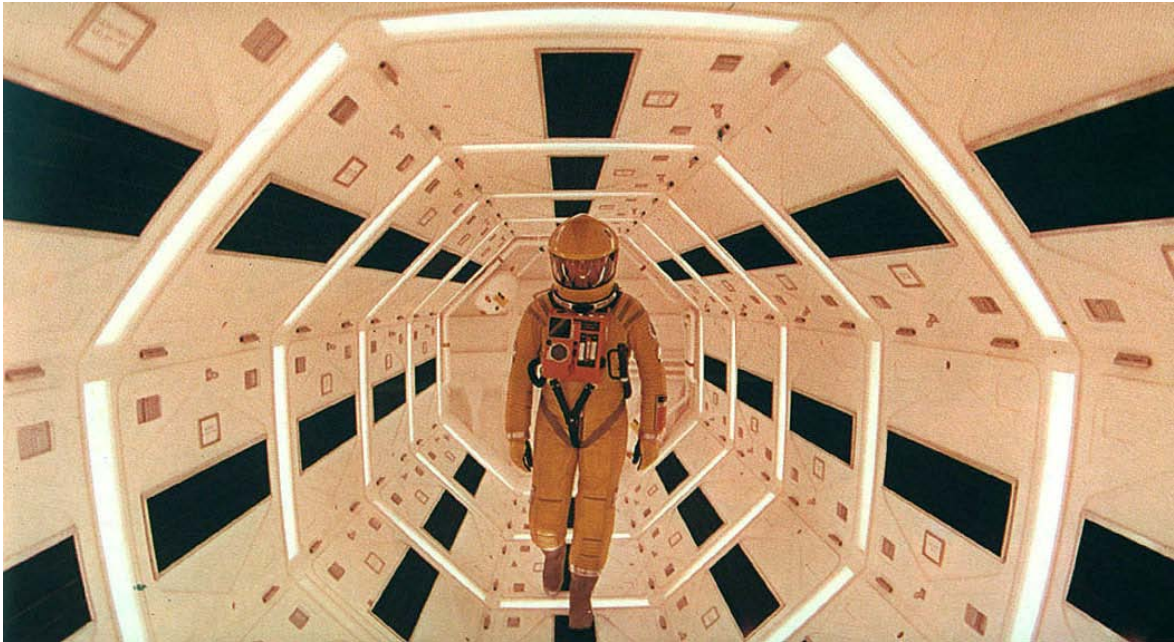
Cities are no longer a grouping of buildings and streets. We see the city as a network of data that can be processed. Cities need to connect with the other side of the screen to permit the negotiation between our digital and biological self's. The future city doesn't have to be cybernetic it can be a hybrid. We don't need to guess what the future city will be like, we should think of in what kind of city we want to live in.

T I A G O B I O G R A P H Y A N D R A D E S A N T O S

Graduated in 2001. Is currently writing his masters thesis. Has worked in several studios including Eric Owen Moss and Arx-Portugal. In 2006 started his own practice in Lisbon. Has been invited to give a class at Lusíada University and has spoken at the EAAE international congress in 2007. Has shown works of virtual architecture at the Lisbon Trienal.

T H E H Y B R I D C I T Y
T I A G O A N D R A D E S A N T O S
P A P E R

History taught us that prophecies never achieve the predicted degree of reality. Imagination is bound within the range of its possibilities and prophecies leap away from those limits. In 1975 we predicted that by the year 2000 we'd be building on the moon. Have we? Far from that. Almost a decade is complete in this new century and still no Space 1999, no 2001 Space Odyssey. We missed on those prophecies, and missed on others too.



1 - 2001: A Space Odyssey

In 1975 we didn't predict cell phones, didn't predict the microwave oven, didn't predict the impact internet or computers would have on our culture. Societies had time to adapt to radio, to the telephone, to television, to the fax machine. Now there's no more time to adapt. Things move much quicker now. It took decades for the telephone cable to reach everyone. Wireless connections now reach even those that don't want it. It's in the air, flows through us all the time. Megabytes of data going through us at light speed at anytime.

Things move fast. Technology is constantly innovating, constantly experimenting and available to most of us. Nowadays you always buy a high tech thing and it's already old news. Innovations arrive fast and depart faster. It's hard to keep up.

Our leaps into the future have become more humble. The steps we take are small, but at high speed. Every month, faster computers, broader bandwidth, smaller chips and higher performance. The smaller things get, the faster they go. The opposite is also true, the bigger things get, the faster they *need* to go. This is obvious in contemporary cities. The bigger they get the faster we need to move to get around, faster cars, larger highways, car pooling lanes. The taller buildings get, the faster elevators move. On the freeway or in the lift the speed experience is a constant. Life's a roller coaster ride.

Life demands speed of motion. Microwaves so we can cook faster, eat faster, so we can leave home faster, start work sooner. Hi speed desktops so we can work faster, faster internet so we can communicate in real time. Faster ways to get home and start the cycle again. Each day faster than the other. It's hard.

Remember that old toaster your grandmother had? The best toasts you can find in your memory. Probably your grandmother still has that toaster. You probably have the latest model of some known brand. 2 year warranty. Your grandmother's toaster is going on 50 years and still working. Things don't live that long anymore. Things have become ephemeral. IKEA furniture so

you can through them away after 2 years. Cheap and some environmental concerns so that you don't feel bad doing it. Apply this to all life aspects, jobs, vacations, relationships, love.

Things appear faster only to perish moments after. We get used to changing things. Changing home every 10 years, car every 4 years, clothes every 2 years, partner every year, cell phone every 6 months. No more eternal things. No more history. Things become *history* before they had chance to leave a mark.

Buildings also need to respect these new rules. "*If it doesn't fit you must*" demolish. A building's life is interrupted when it reveals to be obsolete for the economic interests. Also in architecture things need to be design quicker, to be built faster, to be tear down soon after (few years).

In a society of real time, there is only the moment. No more history, which means, no more monuments. Architects will now outlive their buildings, something we were not used to. How will architecture and urbanism deal with this fact?

The constant repair and substitution of buildings means that cities will be in a permanent state of remaking. But we cannot demolish a city like we do a building. Well, maybe we could, but it's just not fair to do that. So we get historical centres that become obsolete. Constant infrastructure problems, no parking places, dying buildings with dying users. Speed is required of all parts of the city.

SPACE AND SPEED

We move fast through space and time. It is interesting that "when speed reaches a certain point, time and space collapse and distance seems to disappear. The very conditions of spacio-temporal experience are radically transformed. At this point, does architecture finally become immaterial?" (Taylor 1993, p.9). Speed makes time and space collapse and as a result things change. Things are certainly different.

Some centuries ago, ships made the world bigger. More land and water to explore. They invented the machine and the train started connecting countries. The car came along and we started connecting cities. With the telephone we were connecting people. With each of those advances, space became smaller. People and cities got closer.

Then came the internet and cell phones. Real time communication started redefining personal and professional relationships allowing interactivity from far away. Going wireless meant that people didn't need to be in the same space to be working together. "The desynchronizing of local schedules creates the possibility of synchronizing international schedules"(Taylor 1993, p.25). Anyplace can become a work place, you only need to choose where you want to work today.

"The quickest time is real time."(Gleick 2000, p.65) Things are instantaneous and we learn how to live the instant. Time is expensive so we invest time to get time back. We need to be constantly learning to keep up with our societies. Soon, "the rate of change will be so high that for humans to be qualified in a single discipline (...) will be as outdated as quill and parchment. Knowledge will be changing to fast for that. We will need to re-skill ourselves constantly every decade just to keep a job"(Gleick 2000, p.82).

Space is contracting. We are getting closer and closer without even touching each other. It seems like technology makes us free. The freer we get the more dependent on the machines we become. Space is contracting and we are more and more dependent on technology. We are so close that it only takes one computer to crash at the NY stock exchange for the whole world to be affected. Talk about chaos theory. Let's hope that doesn't happen, ... oh, it already did in October 19th 1987.

We are so close that there is no space in between. Real time results in a society of the paradox, "where everything arrives not only without the need to move, but particularly, without the need to leave"(Virilio 1997, p.19). It's hard to define a reality that is coherent with our contemporary way of life. Reality becomes everything that is interactive. Anything you can relate to in real time, becomes real.



2 - The Matrix

We spend more and more time in cyberspace. This affects our perception of reality. We are harassed to choose the screen over the window. The screen becomes our window where we see life happen. Reality becomes virtual and the virtual becomes our reality. We go through this new window and as a result many aspects of our life are now on the other side of the screen. Our money, friends, co-workers, lovers are at a *click's* distance. "Simulation is no longer that of a territory, a referential being or a substance. It is the generation by models of a real without origin or reality: a hyperreal".(Baudrillard 1994, p.1)

For Baudrillard, "The territory no longer precedes the map, nor does it survive it." (Baudrillard 1994, p.1). There is no place before it's mapping. The map, or the image, comes before the place or the site. No more "where no man has gone before", we're "going where no man has seen before".

Cities become an image. Advertising is the most powerful urban art and it's everywhere. Taxi's, buses, subway walls, entire buildings harass us to consume. Just like on TV. At least at home we have our pop-up blockers.

"Connecting people" was Nokia's slogan. That's all we do now, connect. Knock, knock ... no need to ask "who's there?", just look through the screen beside the door to see. And this kind of connection has infected our cities. Everywhere we look or go we are connecting. Buy your tickets on the machine, validate it on another machine. Take money from one machine, deposit on another. We interact more often with machines than with people.

It's getting easy to explore software potentials at the same time that it's getting hard to explore people relationships. We need to search for how to transform the online time in a social act. Technology has changed our perspective of things. As a result, the way we see the cities has transformed and also the way we design them. Technology in the city is still something that most times goes unnoticed. Video cameras, traffic light control, cables under our feet and wireless distribution over our heads. We pass by technology and many times don't even notice it. It's time to make it stand out.

City limits were easy to define. It was the sea, or the river, or the railway track, or a road. With the cities' expansion it became harder to define what was urban and what was rural. In some cases it is even hard to define where one city ends and another begins. Architecture had also well defined limits, the walls, floor or ceilings were the boundary of the built space. With mass media advertising it is sometimes hard to separate what is publicity and architecture. When that publicity

explores digital media, the building itself might become a colossal screen. By that time the physical and a digital spawned a new space that is none of the above but contains both.

I think the physical and virtual spaces will eventually combine. As with the physical city boundaries it is now hard to define where the physical city ends and where the digital one begins. Most city services are programmed and to use the city we often need to interact with digital devices. Go to the ATM machine and transform bytes into money, and a information centre read a hypertext before you see the city.

BEING AND SPEED

Our *self's* are transformed by technology. It modifies our way of thinking and our appearance. It changes the way we live, and die. It changes the way we see things and the way we are seen.

We live in *real time* now. No more Past, no more Future, life's in *real time*. How else can you keep up with everything? We go through life at high speed. Our body has to deform at this speed.

There is a constant battle between the physical and the digital. We have become sedentary, not geographically but spatially. How many ours do you spend at your desk or sofa? We accumulate energy, no wonder we're all fat. Gyms are built all over the city to use that energy excess, health club at every corner.

To help cope with the speed we get prosthesis. The physical extensions we connect to our body turn us into a kind of cyborg adaptable com contemporary life. Our leisure times are passed on the other side of the screen. It's easy to find instant friends, instant information, instant pleasure. You can do anything and be anyone because "on the internet, nobody knows you're a dog" (Steiner 1993). We create a metaphysical identity that can inhabit digital space leaving behind or physical body. Human on one side of the screen, data on the other. Race, sexual orientation, religion can be dissolved between other dada and become irrelevant. We leave a world where sex, race and religion determine the inclusion or exclusion of an individual to enter a world where you only need an image.



3-SONY AIBO ERS-7 Entertainment Robot

We trade our human identity for a “consensual hallucination experienced daily by millions of operators in all nations” (Gibson 1995, p.9). This hallucination leads us to a suicide of the physical body. The death of one allow for the birth of the digital identity, a metaphysical state that can take us through digital environments instead of city streets. One travels through hyperlinks, learns with hypertext, designs hyperspaces where hyperbodies can dwell in a digital hyperreality. This changes the consensual notions of body and space. We have even traded your flesh and blood pets for ones that don't get things dirty.

The electronic simulation of information, of pleasure, of friendship, of love, threatens to become the origin of human experience and knowledge.

The body and the computer dissolve to originate a hybrid. The sexed being and the unsexed machine create a transsexual identity. For Baudrillard this is our destiny, “We are all transsexuals. Just as we are all potential biological mutants, so we are all also potential transsexuals.”(Baudrillard 2002, p.9) Because it removes all reference to things, virtuality comes close to happiness. It gives us anything while it deprives of everything.

Computers are becoming more human and we are becoming more computer like. Machines become independent as we depend more and more on them. The freer we feel the more dependent we are likely to be. We trust machines with responsibility, decisions and information. Dependent on machines and independent of each other we have become. People are apart while profiles are connected. If “technology really accomplishes metaphysics; cybernetics will virtually achieve the “metaphysics of love” – to the detriment of the species and it's sexual reproduction” .”(Virilio 1997, p.115). Our own survival is threatened as the virtual pleasure of telepresence comes close to transcend the pleasure of bodily love.

The body has been colonized by technology as the “ The urbanization of real time is in fact first the urbanization of one's own body plugged into various interfaces (keybord, cathode screen, DataGlove, DataSuit) prostheses that make the superequipped able-bodied person almost the exact equivalent of the motorized and wired disabled person.”(Virilio, 1997 p.11)

It is this “motorized and wired disabled person” that we become as we move in the online space and time. The same way a person in a wheelchair has a different perspective of a certain space than one that walks around, the cyborg's perception of space is different.

This optional disabledness results in the technological experience in detriment of the physical one. The body is used as an interface, as an interaction tool. We need only to lie down on the sofa with the remote control as an extension of the arm. No need to move.

The physical experience is constantly provoked by the digital experience. The computer games and other interactive experiences present us with a growing degree of reality and lead us to break our physical boundaries. We use VR systems to treat height phobias and to learn how to fly an airplane. This is proof that the digital has a strong influence in the physical world.

The provocation is constant. We are harassed by new technologies and always end up seduced by them. Reality changes and the physical experience needs to innovate to be relevant. In order to have a physical experience that surmounts the digital we come up with new extreme sports. We need to go down steep mountains in small boards, bungee jump, skysurfing, etc.

A suicide of the body brought by the technological innovation has created the need for increasingly strong physical experiences. We're coming dangerously close to the real suicide to achieve experiences that move us away from the digital possibilities.

Every year technology enhances the digital liberty leading the physical to test, once again, its limits, every time in a more dangerous way. When finally the physical and digital experiences combine and become one, the strongest physical experience will be the final suicide.

C (VELOC) ITY

How's a city at light speed?

In 1993, William Michel wrote that the *cybercity* would be the capital of the 21st century (Mitchell 1996, p.24). *City of bits* he called it, is probably a city at C speed.

Our desktop screen has become the window into a city that is being built with each “click”. Technology has showed us what we can do, and that if “man realises technology is within reach, he achieves it, like it’s damn near instinctive” (Ghost in the Shell, 2004).

There’s a gap caused by technology we should connect. Generations are separated by those with computer literacy and those without it. Parents try to educate kids that are too technologically evolved for their comprehension. Youngsters are learning to negotiate the fluid transitions between the material and the digital and are living in both worlds. Like Alice “through the looking glass”(Carroll 1994) we visit constantly our fantasy world on the other side of the screen.

Cities are no longer a grouping of buildings and streets. They are a network of data that can be processed. Cities need to connect with the other side of the screen to permit the negotiation between our digital and biological self’s, between digital and physical data. The future city shall not be physical or cybernetic but a hybrid. No need to guess what the future city will be like, we should think of what kind of city we want to live in. Although we live in the city we meet each other in places that cannot be found in it’s map (Mitchell 1996, p. 36). These unmapped places with a digital address determine a place. It’s a metaphysical place. Someone writes do my address but it’s not bound to physical constraints. It’s an address that goes wherever I go, but exists without me.

We could call cyberspace our second home, or our second city. This “consensual hallucination” (Gibson 1984) has led us to share a common space that is nowhere. *Nowhere is Now Here*. As architects we have to deal with this fact as *fact* and not as fiction. The digital space is worth building and we should explore how to use information as material.

There is no more science fiction. Artists and philosophers explore possible futures with their writings and artwork. Possible not as a distant fantasy, but as options. It’s a dangerous path we are walking on and those artists and thinkers have been alerting us.



4-Patricia Piccinini - We are family

The machine dependence now obvious has surely great impacts on the way we live and see the environment around us. It also has great implications in the way we relate to each other. It has changed the way we travel, the way we shop, the way we handle money, the way we communicate. Even the way we love. Few aspects of life remain the same since digital technologies entered our homes. How are cities coping with that reality? Are architects conscious of this fact?

If we are in fact all cyborgs now, “Architects and urban designers of the digital era must begin by retheorizing the body in space (Mitchell 1996, p. 28). We can imagine lot’s of possibilities for the future of cities but most probably our prophecies will once again prove themselves as humble attempts to predict a future that will be a surprise once here.

In the 21st century we will, no doubt, see an increasingly use and dependence on wireless connections. Physical location will become irrelevant. Physical presence will be optional and not required. Physical money might disappear and physical relations will be transformed.

Our relation with the city is becoming less and less physical. The importance of the digital city is growing. At C speed can the city “become immaterial?” (Taylor 1993, p.9) The answer is surely relevant. It’s up to architects and urban designers to search for it. The future city might not be as we expect. The city might just, as we did, become a hybrid.

- 1- TAYLOR, Mark C. Electrotecture. in - Any, No.3, Nov/Dec
- 2-ANY, Electrotecture: Architecture and the Electronic Future, Nr.3, November/December 1993
- 3-GLEICK, James - Faster: The Acceleration of Just about Everything. Nova York : Vintage Books USA, 2000
- 4-VIRILIO, Paul – Open Sky. London: Verso Books, 1997. p.19
- 5-BAUDRILLARD, Jean; GLASER, Sheila, trad. - Simulacra and Simulation (The Body in Theory: Histories of Cultural Materialism). Michigan : University of Michigan Press, 1994
- 6- STEINER, Peter (ilustração) in: The New Yorker, 5 de Julho de 1993. Also available at <http://www.unc.edu/depts/jomc/academics/dri/idog.html>
- 7-GIBSON, William – *Neuromancer*. Londres: Voyager. 1995 - ISBN-10: 0006480411
- 8- BAUDRILLARD, Jean; TURNER, Chris (tradutor) - Screened Out. Nova York : Verso Books, 2002.
- 9- MITCHELL, William – City of bits – Space, Place and the Infobahn. Londres: The MIT Press, 1996
- 10-*Ghost in the shell*. Realização, Mamoru Oshii; Argumento, Kazunori Itô e Shirow Masamune; Produção, Production I.G. [dist.] Manga Entertainment. 1995
- 11- CARROLL, Lewis. - *Through the Looking Glass*. Londres: Penguin books Ltd, 1994