

Imagining the Cybernetic City: *The Venus Project*.

By Anna Notaro

*Only when democracy is lost can technology
and the economy determine the way we live.*
(Castells)

*What gives our dreams their daring
is that they can be achieved.*
(Le Corbusier)

Once upon a time there was Utopia. Ideal cities, or utopias, have been imagined in minute detail by philosophers, poets, architects, social reformers, religious devotees, and artists for more than two thousand years.¹ The attempt to invent the perfect city, cradle of the ideal society, is an abiding and ever-evolving vision embracing a wide variety of fascinating and often controversial movements and figures, including Plato, Filarete, Leonardo da Vinci, Thomas More, Thomas Jefferson, Claude-Nicolas Ledoux, Charles Fourier, Etienne Cabet, Robert Owen, William Morris, Ebenezer Howard, Bruno Taut, Le Corbusier, Frank Lloyd Wright, the European Situationists, the Japanese Metabolists, Archigram, Superstudio, and many more. Utopias, as Ruth Eaton, author of *Ideal Cities: Utopianism and the (Un)Built Environment* (2002), cogently explains, are most often conceived as panaceas during ‘times of profound social unrest’; aim for ‘the greatest collective happiness and harmony; and tend toward geometrically precise and orderly designs as though mathematical balance can control nature's wildness and humanity's perversity. The ideal cities exist for the most part in the domain of ideas, they are ‘paper cities’ (Notaro 2000), whose main aim is to stimulate reflection and change and, as I will argue below in the case of the Venus project (www.thevenusproject.com), they continue to exercise their vital function in relation to the urban environment of the future. As Eaton suggests, ‘while it is true that notorious attempts to cross the border into reality have greatly discredited utopianism, it is useful to recall – with the famous historian of cities, Lewis Mumford – that ‘a map of the world that does not include Utopia is not worth even glancing at’ (Eaton 2002).² In other words, to reject the utopianism of the Ideal City is to reject a fantasy of pure space, not the need to imagine

how we might live differently. To reject positivist pragmatism should not entail a disdainful withdrawal from an engagement with those activities and rationalities that lead to changes in the fabric of the city: urban policy, planning architecture, and so forth. Only by discovering ‘what Le Corbusier called the ‘rules of the game’: the interrelated revolutionary changes in urban design, politics, and economics, real solutions are likely to be found’ (Fishman 1982, x). In this sense, utopias are not to be intended in the pejorative sense of being vague, impossible dreams, rather in Karl Mannheim’s classic definition of utopia as a coherent program for action arising out of thought that ‘transcends the immediate situation’, a program whose realization would ‘break the bonds’ of the established society (Fishman, x). The ideal cities of the Machine Age in particular tried to combine the power and beauty of modern technology with social justice based on the belief that reforming the physical environment can revolutionize the total life of a society. Architects such as Howard, Wright and Le Courbusier, without subscribing to the simplistic ‘doctrine of salvation by bricks alone’, still believed in the idea that physical facilities could by themselves solve social problems (Fishman, 4). The main problem to overcome was the fact that humanity was living in what Le Courbusier called the ‘Age of Greed’. Greed was the main obstacle towards the creation of a total environment in which man would live in peace with his fellow man and in harmony with nature – I will return to the question of human greed in my discussion of the Venus project below.

The Machine Age was an age of great expectations and ideological fervor, an age in which the promise of the Enlightenment appeared realized. In more recent years postmodernism has disposed of old utopias and deconstructed our totalizations, in so doing ‘we think we have reinstated freedom of choice and enabled the voice of alterity to rise, but we have clearly done so at the cost of community’ (qt. in Boyer 1996, 28)³. What Boyer is warning us against is the fact that our technological fascination with computers, with cyberspace, has caused a withdrawal from the real world to the point that ‘our critical engagement with the city is, at best, action at a distance’ (11). Contrary to modernism, whose main focus was the city, today ‘it [the city] appears to be disappearing from critical debate’ (10). Although Boyer is by no means unaware of what she calls the

‘darker side of modernism’ so well explored by Foucault, I cannot fully agree with the gist of her argument. My contention is that far from disappearing from critical debate, the city is still very much at its centre, similarly the ‘utopian drive’ that we have come to associate with positivist/rationalist thought is re-emerging under new guises in contemporary futuristic projections where nature and technology coexist in harmony.⁴ As if it was a reassuring memory we are too fond of to abandon, we seem incapable to free ourselves from the ‘utopian baggage’ that the city trope inevitably carries with it. We might have lost faith in a notion of utopia as a community which is ordered on some rational principle, which offers ‘the good life’ to its people so that they are happy’ (Dahrendorf 1968, 107-110), and yet we still speak the *language* of utopia. Significantly, the connections between (cyber)space and ‘the city’ trope have emerged since cyberspace was first defined in William Gibson’s words as:

A consensual hallucination experienced daily by billions of legitimate operators... A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding...[ellipses original] (Gibson, *The Neuromancer*, 1984).

Since then the city has become the most common tool for thinking about the virtual world: virtual cities, cybercities, cybervilles or cybertowns, as they are often named, keep springing up and not just in SF novels, there are in fact, a growing number of avatar worlds which are shared, graphical spaces.⁵ New forms of citizenship, the ‘cyborg citizen’ (Gray 2001) have been envisaged in a post-gendered ‘technological polis where machinic desires drive cybernetic systems by artificial instincts and recursive feedback loops’ (Haraway 1991, 181). And yet it is the reified view of the city as a physical entity that still helps shape our conception of what this new world should be like – using the metaphor transfers the (allegedly) concrete meaning of ‘city’ to the abstract virtual environment (Leiss et al. 1990; Eco 1984). Moreover, and *pace* Boyer, cities have always been at the centre of critical debate even when it was argued that the new information and communication technologies (ICT) would threaten their very existence (Mc Luhan 1964, Toffler 1980, Negroponte 1995, Gates 1995). Post-urban fantasies imagined cyberspace as a ‘neo-utopian’ ecological force for

Decontaminating the natural and urban landscape, redeeming them, saving them from the chain-dragging bulldozers of the paper industry, from the diesel smoke of courier and post-office trucks, from jet fuel flames and clogged airports... from all the inefficiencies, pollution (chemical and informational), and corruptions attendant to moving information attached to things ... across, over and under the vast and bumpy surface of the earth rather than letting it fly free in the soft hail of electrons that is cyberspace (Benedikt 1991, 3).

Futurists such as Alvin Tofler (1980) spoke of a 'third' wave for the ICT-based societal revolution, following on from the first (agricultural) and second (industrial), thus reflecting the classic, deterministic view of the role of new communications and transport innovations in which 'changes in technology lead inexorably to changes in urban form' and urban life (Hodge 1990, 87). In such a view technology is seen as the direct cause of urban change. One would have thought that years of familiarity with 'weak thought' (Vattimo 1991) would have prevented any technological determinism from reoccurring and yet, as Robins has pointed out, 'too often futuristic accounts of the electronic city are driven by a resurrected modernism that, like Saint Simonian's of the 19th century, looks to technology to offer transparency, efficiency and thus social harmony' (qt. in Graham 2004, 131). It has also been argued that neo-utopian ICT discourses and the virtual realities of neo-liberal economic thought to which they have been so closely tied, are but 'camouflage screens', in other words they mask the roles ICTs have played in facilitating the corporate control of cities, economies, infrastructures and the international economic system. They have also masked the deepening environmental crises caused by contemporary capitalism, thus shifting attention from the deepening social, economic and cultural inequalities (Graham 2004, 20). Contemporary critical debate has often stressed how our urban fabric has become an e-topia (Mitchell 1999), a new urban form in which we constantly interact, deliberately or automatically, with online information systems, increasingly in the wireless mode. In such a scenario it is not surprising that the word 'city' becomes more diffuse. Rampant growth and instantaneous forms of communication have transformed cities from separate pockets of urban space to what Arjen Mulder, co-editor of *TransUrbanism* (2002), calls an 'urban field, a collection of activities instead of a material structure' (6). This field is not defined by a geographical, a political or even an architectural boundary, but by a technological one – the availability

of cell phone service where urban edges are defined by the ability to avoid roaming charges. The conclusion about the current status of urban space is twofold: on one hand unchecked, unplanned urban growth appears inevitable, whether it is new cities in developing countries or suburbs in developed countries. On the other, globalization is diluting the identity of individual cities, blurring their unique characteristics into the black-and-white duality of urban versus rural (Mulder 2002). The fact that the word city has become more 'diffuse' does not imply, however, that cities have lost their validity as conceptual tools, as Ulf Hannerz reminds us 'Cities are good to think with, as we try to grasp the networks of relationships which organize the global cultural flows and connections of our planet...They are places with especially intricate internal going-on, and at the same time reach out widely into the world, and toward one another' (qt. in Graham 2004, 243). Also, it is significant, as Castells points out, that 'grassroots movements continue to shape cities, as well as society at large' (qt. in Graham 2004, 87). Castells is quite right in stressing the importance of social movements in the 'network society' for their clever use of the internet for social mobilization and – interestingly for the purposes of this paper – for their 'exploration of the environmental movement, and of an ecological view of social organization' (88). As a consequence, Castells argues, 'urban areas become the connecting point between the global issues posed by environmentalism and the local experience ...To redefine cities as eco-systems, and to explore the connection between local eco-systems and global eco-systems lays the ground for the overcoming of localism by grassroots movements (89). In the next section I will be discussing several eco-communities projects which, notwithstanding their heterogeneity, seem to aim at connecting, in Castells' words, local eco-systems with global ones. Their neo-utopian visions offer 'spaces of hope' for alternative technonatural worlds, the promise of a new civilization founded on values of peace and harmony. The communities presented below show, in some cases, striking similarities with some aspects of the Venus project. By pointing out such similarities I do not intend to underestimate the originality of the project, but to provide a cultural and historical context in which we may better appreciate its merits and evaluate its shortcomings.

Eco-communities

Since the 1980s, the New Urbanism movement founded by Miami architects Andres Duany and Elizabeth Plater-Zyberk (<http://www.dpz.com/>) has urged a return to traditional American communities or ‘urban villages’. Seaside, FL (<http://www.seasidefl.com/>), familiar worldwide as the setting of *The Truman Show*, was the blueprint for a ‘new’ community with high housing density, controlled automobile traffic and judicious planning.⁶ In the neo-urbanist view, the design of the city, at the micro and macro levels, can be *both* environmentally and economically more sustainable. Interestingly, in those same years, far from the architects’ studios was emerging the so-called ‘eco-village vision’, a vision which did not advocate just new forms of communal living, but a whole new philosophy of life. The first appearance of the word ‘ecovillage’ was at a Gaia Trust seminar in Denmark in 1991. The seminar brought together for the first time representatives of several very different projects from well-established settlements like Solheimer in Iceland, Findhorn in Scotland, Crystal Waters in Australia, and Lebensgarten in Germany to The Farm in Tennessee. The hope was that as more and more ecovillages appeared, the idea of sustainable human settlements in harmony with all aspects of life, including the cultural, ecological and spiritual dimensions would quickly spread all over the planet. In the words of the Gaia Trust founders this is ‘a feminine utopia and a community utopia’, a way ‘to reinvent ourselves as humans’, thus bringing about ‘a global society of independent free peoples in harmony with nature and each other, but with a diversity of cultures, races and religions that honor and respect the diversity of our common heritage’. Similarly to the Venus project the Gaia trust expresses a deep distrust of politicians (unsuitable and/or unwilling to solve problems they have contributed to create), the only alternative lies at the grassroots level, that’s where ‘one should expect revolutionary change to occur’ (<http://www.gaia.org/ecovillage/index.asp>). The Findhorn Foundation, the educational and organizational cornerstone of the Findhorn Community – one of the participants to the Gaia Trust seminar mentioned above – is based on ‘the values of planetary service, co-creation with nature and attunement to the divinity within all beings’. Findhorn ecovillage project, which began with an energy producing wind generator and some caravans, now features cutting-edge eco-houses (http://www.findhorn.org/about_us/display_new.php).

‘The Farm’, founded in Tennessee in 1971 and inspired by the hippie movement of the 1960s (not surprisingly, they also run a Hippie museum) is a self-sufficient, strictly vegetarian, rural venture grounded in religious communitarianism. Its spiritual base rests on a rather diffuse, syncretistic set of principles combining Eastern mysticism, tantric telepathy, and Western spiritualism in a matrix of evangelical enthusiasm (<http://www.thefarm.org/>). The Farm’s web site includes an interesting link to ‘Permaculture’, a design system for creating sustainable human environments in balance and harmony with nature. Permaculture is based on three ethical principles: care of Earth, care of people, reinvesting the surplus towards the former two. There is also a Permaculture Institute, founded in 1997, which provides education, consulting and fund raising. A Permaculture demonstration Farm is active in New Mexico and an ecovillage project has been set up in Brazil (<http://www.ibiblio.org/spittman/>). The emphasis put on the importance of eco-friendly design is certainly an element shared with The Venus project.

Also part of the ecovillage network is Auroville, a place in south India where, since 1968, a number of people from all over the world have been working on the construction of a ‘new township, a new way of living, a new way of being’. Today Auroville counts 1,789 residents committed to the goal of ‘a universal township where men and women of all countries are able to live in peace and progressive harmony, above all creeds, all politics and all nationalities ... so that, eventually, our species may progress’ (<http://www.auroville.org/>).

Even outside the ecovillage network it is possible to come across a whole range of projects which share a deep dissatisfaction for the current state of human affairs and aspire to the establishment of new communities on a global scale. The ‘Island Foundation’ (<http://www.island.org/intro/>) founded in 1990 by Bruce Eisner focuses on the vision of Aldous Huxley expressed in his last novel *Island* (1962), a true utopia that is destined to perish as soon as it comes into contact with the greed and exploitation which characterize the modern world. Starting from the usual premise that contemporary society faces difficult challenges – exploding population, deterioration of the environment,

intense competition for resources, totalitarianism, violence and alienation – the foundation responds by blending, like Huxley, some ideas from the archaic past with the most current ones. The result is a rather syncretistic ensemble – mysticism, shamanism, tribal culture, paganism, sacred plants, psychedelics, entheogens, nanotechnology, transhumanism, intelligence-increase, altered states of consciousness, humanistic and transpersonal psychology, self-actualization, alternative lifestyles and cultures, genetic engineering, hedonic engineering, the ‘new physics’, systems thinking etc.⁷ The foundation also prides itself on having become ‘a communication hub for like-minded people around the World’. Such like-minded people include, apparently, Jacque Fresco, the founder of the Venus project. In the words of Bruce Eisner, such a project has ‘similar aims to the Island Sanctuary Project. Both believe that our culture is due for an upgrade’ (http://www.bruceeisner.com/new_culture/2004/01/the_venus_proje.html). However, I should quickly add that the similarities are very limited since, as we shall see below, The Venus Project does not entail a similarly syncretistic conceptual basis.

Contrary to the Island foundation, whose main inspiration stems from the world of literature, Arcosanti (<http://www.arcosanti.org/>), an experimental town in the desert of Arizona is the product of a visionary Italian architect, Paolo Soleri. When complete, Arcosanti should house 5000 people, ‘demonstrating ways to improve urban conditions and lessen our destructive impact on the earth’. Its large, compact structures and large-scale solar greenhouses ‘will occupy only 25 acres of a 4060 acre land preserve, keeping the natural countryside in close proximity to urban dwellers’. Arcosanti is designed according to the concept of arcology (architecture + ecology), developed by Soleri (1969). In an arcology, ‘the built and the living interact as organs would in a highly evolved being. This means many systems work together, with efficient circulation of people and resources, multi-use buildings, and solar orientation for lighting, heating and cooling’. In this complex and creative environment, apartments, businesses, production, technology, open space, studios, and educational and cultural events are all accessible, while privacy is paramount in the overall design. Greenhouses provide gardening space for public and private use, and act as solar collectors for winter heat. His communities would concentrate housing, industry and services into a single, massive complex that

would be updated regularly to meet the community's needs. Arcosanti is an educational process as well as a town *in fieri*. Regular workshops are run in building techniques and 'arcological philosophy' for volunteers and students from around the world. The project has been featured in several international exhibitions and produces various fund-raising activities. The principles of arcological building (with a particular emphasis on alternative technology) put into practice in Arizona are definitely akin to those envisaged in The Venus project, both in its built headquarters in Florida and in its various graphics and designs. Arcosanti, however, falls short of proposing a whole new culture on a global scale and not just some innovative ways to conceive our urban environments.

Similarly to Soleri, another visionary architect, R. Buckminster Fuller devoted his imaginative efforts to respond to the challenges posed by the modern world. Like in the case of Jacque Fresco, Fuller's motivation was an acute social awareness of the profound economic disparities which characterize our 'supposedly' advanced way of living.

Although Fuller did not come up with a whole new blueprint for humanity, he sought to 'do more with less' by designing for example a lightweight, inexpensive alternative to the square building. His domes were very light, extremely strong, energy efficient, and offered a limitless variety of possible floor plans, making them ideally suited for housing – domes are a recurrent feature in many futuristic projections, among the ones realized one should mention the EPCOT Center at Florida's Walt Disney World and the US Pavilion at the 1967 Montreal World's Fair.



Geodesic Domes Advertisement, 2000

In 1927 Fuller designed the factory-assembled Dymaxion house (making cheap mass-produced housing a reality), followed in 1928 by the three-wheeled Dymaxion car (technically superior and safer than the Model T Ford). Not surprisingly, Fuller's designs encountered resistance from purely profit-driven corporations. Fuller believed that any true social or political revolution must arise from and encompass design revolution insights, and not just be based upon shallow political rhetoric. Design Science was for

him ‘the effective application of the principles of science to the conscious design of our total environment in order to help make the Earth's finite resources meet the needs of all humanity without disrupting the ecological processes of the planet’ (F. Buckminster and R. Marks 1973). He also discovered the science of Synergetics, which explores holistic engineering structures in nature (long before the term synergy became popular). Fuller’s work has been influential on, among others, well known futurists such as Robert Anton Wilson, Barbara Marx Hubbard and Marshall Savage (see the work of the Living Universe foundation <http://www.luf.org/>). Today his legacy is carried forward by the Buckminster Fuller Institute (BFI) (<http://www.bfi.org>).

I wish to conclude this section dedicated to – at various degrees neo-utopian – projects and eco-communities by mentioning two by the same founder, Eric Klien. One is the short-lived Atlantis Project (<http://oceania.org/>), which proposed the creation of a floating sea city named Oceania. It began in February 1993, receiving nationwide publicity from *The Art Bell Show*, *Details Magazine*, *The Miami Herald*, *Boating Magazine*, and worldwide publicity in Canada, New Zealand, Hong Kong, England, and Belgium and ended, due to lack of interest, in April of 1994. Worth noting is the fact that floating cities are also part of the Venus project.

From the sea Klien moved to the skies with his current project, the Lifeboat Foundation (<http://lifeboat.com/ex/main>), a project dedicated to the preservation of the human race. The organization’s aim is to ‘safeguard humanity from the growing threat of terrorism and technological cataclysm’. Among the options are ‘self-sustaining technologies using AI and nanotechnology with an emphasis on self-contained space arks’. Significantly, the Lifeboat Foundation is very much anchored in capitalist models of enterprise since among its long terms goals by 2016 it includes the launch of ‘a for-profit corporation to work outside the humanitarian efforts of the Lifeboat Foundation. This sister corporation will aim to put the first self-sustaining space colony in orbit. A colony designed to function as a lucrative space hotel providing protection against terrorism, force and fraud’. Also, by 2020 free enterprise in the conquest of space should be promoted. ‘This would include the development of giant mobile ecospheres, moon colonies, a terraformed

Mars, solar arrays on Mercury, a Dyson Sphere covering most of the sun, and interstellar spaceships'. Because of its belief in capitalist values and its interest in space colonies rather than in improving the human condition on Earth, the Lifeboat project diverges substantially from the Venus one.

The projects discussed so far – only a brief selection – are exemplary of that abiding and ever evolving (utopian) way of thinking mentioned at the beginning. The Venus project certainly has not come out of a vacuum; it has come out of a cultural *humus* heavily permeated by utopian discourse. The philosophical premises and the proposed solutions might differ, still the utopian writes of things not as they are, but as s/he would have them. This tells us that we realistic humans are characterized by optimism, the hope that people and things can be better than they are and that our posterity can, through the human gift of creative intelligence, be offered a blueprint for building a better world.

Venus Project

When it comes to technological utopias, one would be correct in arguing that these are an integral component of the American Dream. From the emphasis on philosophically-based patterns derived from European antecedents, interest shifted to utopian designs much more heavily dependent on technological advancements – a motif nearly entirely absent from European utopian writings. As the idea of America as man-made rather than natural utopia became a distinct possibility, the original Puritan notion of America as the site of God's millennial kingdom on earth faded in popularity. The earliest American utopian book was by the German born John Adolphus Etzler and its title, *The Paradise Within the Reach of All Men without Labor, by Powers of Nature and Machinery* (1833) emphasized the *practical* attainability of a new Eden. John Etzler further elaborated his plans to free humanity from menial labor in his *The New World; or Mechanical System to Perform Labour of Man and Beast by Inanimate Powers* (1853). Etzler's intention was to build a universal, all-purpose machine, which he called 'the Satellite'. It would take the mechanical power from a water wheel and distribute it, through long belts and complicated gears and levers, to other machines connected to it. With its various

extensions, the ‘Satellite’ would supposedly perform all the work on a farm. The form of the vast imagined contraption would necessarily define the form of the farm organized around it. Giant iron earthmovers attached to it would cut and flatten the ground into grand circles of social organization, all centralized and mechanized. Etzler pre-dates Fresco, the founder of the Venus project (www.thevenusproject.com), by a century, but his approach has similarities⁸, not just in the potential for technology to minimize the need for menial labor, but also for his emphasis on the *practical* attainability of a better world. When I questioned Mr Fresco about his influences, he stressed how:

living through the 1929 Great Depression in the US helped shape my social conscience. During this time I realized the earth was still the same place, manufacturing plants were still intact, and resources were still there, but people didn’t have money to buy the products. I felt the rules of the game we play by were outmoded and damaging to so many. This began a life-long quest resulting in the conclusions and designs presented in The Venus Project (email of 20/2/05).

Another important life experience was his work with drug addicts, alcoholics, and juvenile delinquents in New York City. This was helpful in understanding ‘that instead of working with individuals, more effective methods would deal with the societal conditions creating dysfunctional behaviors in the first place’ (Ibidem). An additional motivation had to do with ‘the apparent incompetence of governments, the academic world, and a lack of solutions from scientists. Many fail as generalists because [they] consider problems within the context of the system they’re in, which is mainly responsible for the problems in the first place’ (Ibidem). Having done ‘a lot of reading and explored architecture, political movements, and utopian thinking’ Mr Fresco came to the conclusion that ‘none seemed sufficient’ (Ibidem). As for the current state of affairs in urban centers, contrary to the current trend ‘to retrofit new, more efficient technologies into their existing infrastructures’, Fresco argues that ‘Our physical infrastructure of industrial plants, buildings, waterways, power systems, production and distribution processes, and transportation, must be reconstructed as an integrated system. Only then can our technology overcome resource deficiencies and provide universal abundance’ (Ibidem).

In his view ‘Today’s problems can’t be solved by political or financial strategies because they are *technical* in nature. They will only be solved by the intelligent management of Earth’s resources through an international cooperative joint venture’ (Ibidem, emphasis in the original). Having disposed of politics – apparently one of the world’s great evils together with poverty – see Fresco’s book *The Best that Money Can’t buy, Beyond Politics, Poverty, & War* (2002) – one is left wondering what form of governance future society will have. Having identified today’s problems as technical in nature it is not surprising that Fresco foresees a cybernated society where as ‘AI develops, machines will be assigned the tasks of complex decision-making in industrial, military and governmental affairs ... This would not imply a take-over by machines’ (Ibidem 56).⁹ It won’t be a take-over because, as it is already argued – at various degrees of alarm and/or approval – within contemporary post-humanist discourse, ‘the division between living bodies and technology is increasingly difficult to maintain’ and ‘we are well on our way to becoming machinic’ (Armitage 1999, 2)¹⁰. In other words, we will become machine ourselves, our salvation as a species resides in the loss of our humanity as we know it: ‘When biological technology becomes further advanced, human beings as we know them, will become a modified species. If we as human beings fail to include the possibility of this development in our overall, social evolution we will witness the decline of our species’ (Fresco 2002, 141). One is puzzled at the way in which a perspective of such magnitude is introduced with a matter of fact attitude, regardless of the deep philosophical and ethical implication. Unfortunately, there does not seem to be space for idle theoretical speculations on ‘pointless’ questions such as ‘what is the meaning of life’ in the Venus project, although one would have hoped that once humanity is relieved from menial labor, this is exactly the sort of spiritual activity one would entertain. As for the cybernetic city itself, it presents a circular arrangement as follows:

- * The outermost perimeter is utilized for recreational activities such as biking, golfing, hiking and riding, etc.
- * A circular waterway for irrigation and filtration surrounds the agricultural belt. The agricultural belt, with many transparent enclosed buildings, will be used to grow a wide variety of organic plants without the use of pesticides.
- * Areas are set aside for renewable clean sources of energy using wind generators,

solar, heat concentrating systems, geo thermal, photovoltaic and others.

* The residential units, apartments and the design centers are beautifully landscaped in natural surroundings, adjacent to dining and other amenities.

* The buildings surrounding the central dome provide the community with centers for cultural activities such as the arts, theater, exhibitions, concerts, and various forms of entertainment.

* The central dome or theme center will house the core of the cybernated system, educational facilities, access center, computerized communications networking systems, health and child care facilities

(<http://www.barbelith.com/topic.php?id=2604>)¹¹.



Circular City



Cybernated complex



Center-dialogue



Automation lift and apartments

(photos from <http://www.pinian.com/the-venus-project-photogallery-page-one.html> – reproduced with authors' permission).

Most importantly, all the facilities are available to everyone without cost in a resource based economy where human greed becomes a thing of the past. By resource based economy Fresco intends one that ‘utilizes existing resources rather than money and provides an equitable method of distribution in the most humane and efficient manner for the entire population ... all the world’s resources are held as common heritage of all the Earth’s people.. This is the unifying imperative’ (Fresco 2002, 40). The cybernetic city, as delineated above is totally connected (wired, in today's terminology). Technologies, computers, and automation have affected all services and functions in the city.

Transportation, work, food production, housing, education, entertainment will all reflect changes in living conditions. Architecturally the Venus Project is designed to be ‘in harmony with nature’ incorporating parks, gardens, waterways, and utilizing the best in clean technology. The buildings are to use reinforced concrete and be fabricated in dome shapes, which will make them easy to build and maintain. Such a city is no far-fetched utopia; it ‘represents an achievable, sustainable, and sophisticated environment, one that is design to help bring out the best in human potential. (Ibidem, 117). The important premise is that ‘Bigotry, racism, greed, nationalism, egotism etc. are not ‘inherited human traits’, or ‘human nature’ therefore ‘if the environment changes people will change’ (Ibidem, 89). Some of the ideas outlined above have been translated into reality in what is Phase One of The Venus Project, i.e. the twenty-five acre design center in south-central Florida where one finds buildings and a conference center, along with the models, illustrations, blueprints, posters and a video presentation.¹²

In conclusion, I have to say that I am greatly impressed with Fresco’s thorough approach to solving large issues of humanity, technology and the environment. His attempt is particularly praiseworthy at a time when it is easy for most people to criticize society, but much more difficult to identify and implement plans to resolve its problems. Fresco’s main motivation is one that is difficult to disagree with: the humanitarian effort to preserve the future of human life. His vision is eminently practical, and although this constitutes an innovative and welcome element with reference to previous utopian projections, his focus on science alone makes him fail as a generalist – the criticism Fresco himself passed on academics and scientists. Today’s pressing problems require a holistic approach, – various disciplines, arts science, philosophy working on a

‘convergence mode’, unfortunately Fresco’s vision seems to consolidate the long-established view that the ‘two cultures’ (Science and Art) are antagonistic. Also, Fresco is a bit too hasty, in his blueprint for a new world civilization – one based on human values and environmental reclamation – to dispose of current beliefs and social customs ‘Our future’ he proclaims, ‘does not depend on present-day beliefs or social customs, but will continue to evolve a set of values unique to its own time. There are no Utopias. The very notion of ‘Utopia’ is static ... the survival of any social system ultimately depends upon its ability to allow for change to improve society as a whole’ (Fresco 2002, 156). Many years ago Ernst Gombrich pointed out that the unfamiliar is always extrapolated from the known (1960, 72) our current customs and beliefs are part of ‘the known’, hence instrumental for that process of change that is, quite rightly, advocated. Clearly, The Venus project is no static utopia, rather a dynamic one: it requires an incremental process driven by an ever-changing extropic ideal.¹³

This paper has discussed the cybernetic city, as envisaged by the Venus project, in the context of contemporary urban debate and neo-utopian discourse. The challenges we currently face are enormous, our priority, even before producing a blueprint for posterity, is clear: to design a new sustainable city in a world that has begun to address its environmental problems. In other words what we need is designing at greater densities, living and working together, in fresh green places of intense sustainable food production, in extended family units, safe secure pleasant places to inhabit, cohabit, enjoy. Is using natural renewable resources with minimum reliance on technical solutions to maximum effect an utopian dream or an achievable reality? Too much would be asked of science and technology if they were the only conceptual tools at our disposal. We need co-operation and convergence on a global and interdisciplinary scale. In this sense, it was encouraging to see that Expo 2005 – in Aichi Japan – has chosen as its main theme ‘Nature’s Wisdom’, thus suggesting ‘that the true meaning of technology is to draw out the hidden potential of nature so that it has new purpose. This new purpose must include environmental, technological and cultural concerns about local and global development’. Interestingly, one of the Expo sub-themes is ‘Eco-communities’ and ‘There are even plans for the Expo 2005 site eco-community to become a node in an international network of eco-community experiments which will hopefully develop as we progress into

the next millennium' (www.expo2005.com/). The sustainable city (and the world?) of the future might look nothing like the one we know today, in thinking about what might lie ahead though, let's not lose our sense of history and hope, with Lefebvre, that 'it will turn out well':

To think about the city is to hold and maintain its conflictual aspects: constraints and possibilities, peacefulness and violence, meetings and solitude, gatherings and separation, the trivial and the poetic, brutal functionalism and surprising improvisation...*Thinking the city moves towards thinking the world...One can hope that it will turn out well* but the urban can become the centre of barbarity, dominance, dependence and exploitation...In thinking about this perspective, let us leave a place for events, initiatives, decisions. All the hands have not been played. The sense of history does not suppose any historic determinism, any destiny. (qt. in Kofman et al. 1996, 53 emphasis mine).

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¹ A selected bibliography on this vast topic includes: Suvin, D. *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*. New Haven: Yale

University Press, 1979; Marin, L. *Utopics: The Semiological Play of Textual Spaces*. Atlantic Highlands, NJ: Humanities Press International, 1984; Bloch, E. *The Principle of Hope*. Trans. S. Plaice, N. Plaice, and P. Knight. 3 vols. Cambridge, MA: MIT Press, 1986; Moylan, T. *Demand the Impossible: Science fiction and the utopian imagination*. New York: Methuen, 1986; Jameson, F. *The Seeds of Time*. New York: Columbia University Press, 1994; Owen D. J. and T. Moylan. *Not Yet: Reconsidering Ernst Bloch*. New York: Verso, 1997; Jameson, F. "‘If I find one city, I will spare the man’: Realism and Utopia in Kim Stanley Robinson’s *Mars Trilogy*” in Parrinder P. ed. *Learning from Other Worlds: Estrangement, Cognition, and the Politics of Science Fiction and Utopia*. Durham, NC: Duke University Press, 2001, 208-232.

² Mumford’s quote originates from his *The Story of Utopia* (1922), as Rhodri Windsor-Liscombe reminds us in his interesting ‘*The Ideal City*’ A Discussion Paper in Preparation for the World Urban Forum 2006, www.finearts.ubc.ca/faculty/rhodri/The_Ideal_City.pdf p.32. However, it is worth pointing out that Mumford himself echoes Oscar Wilde in ‘The Soul of Man Under Socialism’ (1891). The full quote is the following: ‘A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing. And when Humanity lands there, it looks out, and seeing a better country, sets sail. Progress is the realization of Utopias’ *The Best of Oscar Wilde*, ed R. Pearce, London: Duckworth (1997), 42 (36-44).

³ Virtual communities exist in cyberspace and have been object of scholarly inquiry since Rheingold’s study of 1993, *The Virtual Community*, available at <http://www.well.com/user/hlr/vcbook/>. See also Jones, S. *Virtual Culture: Identity and Communication in Cybersociety*, London: Sage (1997); Smith M. A and P. Kollock eds. *Communities in Cyberspace*, London: Routledge (1998); Preece, J. *Online Communities: Designing Usability and Supporting Sociability*, Chichester, West Sussex: John Wiley & Sons, (2000); Renninger. K.A. , Cambridge University Press (2002).

⁴ In the words of Tsvi Bisk, an independent Israeli educator, social researcher and writer, ‘Neo-Utopianism’ should be pluralistic in order to avoid the totalitarian know-it-all temptation that has doomed utopian experiments in the past’. The ‘Neo-Utopian challenge’, as he puts it, should be formulated as a question. The question is: ‘How can we create, by the year 2100, a planetary human society composed of 12 billion people with an American standard of living with one tenth the negative environmental impact present human society has on nature? What research and development policies, international trade policies, tax policies, space exploration policies must we pursue in order to achieve such a vision? This is a practical question *given to rational treatment* that will engender *numerous* alternative possible answers. The debate, therefore, will be utopian but *pluralistic and non-totalitarian*. ‘Utopianism Come of Age: From Post-Modernism to Neo-Modernism’, <http://www.wfs.org/bisk.htm>. The ‘American standard of living’ referred to above is not necessarily the best example, since recent events in New Orleans have dramatically unfolded the spectacle of poverty – of what Michael

Harrington described as ‘the other America’ - on millions of TV screens, still, Bisk’s call for a ‘Neo-Utopian’ challenge is a valid one.

⁵ See for example cybertown at http://www.cybertown.com/main_iframes.html and S. Horn’s *Cyberville: Clicks, Culture and the Creation of an Online Town*, New York: Warner Books, 1998.

⁶ See Mohny, D. and K. Easterling, eds. *Seaside: Making a Town in America*. New York: Princeton Architectural Press, 1991. For a solipsistic criticism of the Seaside project, see Nunn S., ‘Designing the Solipsistic City: Themes of Urban Planning and Control in *The Matrix*, *Dark City*, and *The Truman Show*,’ *ctheory*, www.ctheory.net/articles.aspx?id=292, 2/7/2001.

⁷ See Eisner’s Interview with Laura Huxley (1993), wife of the late Aldous Huxley, available at <http://www.island.org/ive/3/>

⁸ I am very grateful to William Gazecki for first mentioning to me Etzler as a possible precursor of Fresco’s work.

⁹ For Fresco Cybernation is ‘the wedding of the computer to production’ (2002, 51). The word, cybernetics, derives from the Greek term, *kybernetics*, referring to mechanisms of steering, governing, or control. The term was first used with reference to ‘human engineering’ by MIT mathematician Norbert Wiener. See his *Cybernetics or Control and Communications in the Animal and the Machine*, 2nd edition, Cambridge MA: MIT Press, 1965 [1948].

¹⁰ While theorists such as Arthur and Marilouise Kroker in their *Data Trash: the theory of the virtual class*, Montreal: New World Perspectives, (1994) argue that the body is already obsolete, Katherine Hayles, in her *How We Became Posthuman*, Chicago: University of Chicago Press, (1999), while not offering any conclusions, presents us with some fascinating interwoven stories about ‘how information lost its body’. On this point compare the emergent philosophical movement of transhumanism - the term *transhuman* is shorthand for *transitional human*, i.e. people who are in the process of becoming ‘posthuman’ or ‘cyborgs’ - which says that humans can and should become more than human through technological enhancements. More at The World Transhumanist Association web site <http://transhumanism.org/index.php/th/>.

¹¹ The plan is vaguely reminiscent, among others, of Hugh Ferriss’ personal manifesto of visionary urbanism. See *The Metropolis of Tomorrow*. Reprint of NY: I. Washburn, (1929). Princeton, NJ: Princeton Architectural Press, c1986.

¹² The center has been set up with the help of Fresco’s long time associate, Roxeanne Meadows. In 2005 a film about the project and its founder, *Future By Design*, has been produced by Emmy award winning documentary filmmaker William Gazecki, more information at www.FutureByDesignTheMovie.com.

¹³ Extropy means seeking more intelligence, wisdom and effectiveness, an open-ended lifespan, and the removal of political, cultural, biological, and psychological limits to continuing development. Perpetually overcoming constraints on our progress and possibilities as individuals, as organizations, and as a species (http://www.unet.univie.ac.at/~a0102122/about_me/extropy.htm). For a useful summary of the main principles of extropy see also http://en.wikipedia.org/wiki/The_Principles_of_Extropy.