

EXOSPACE AND TERRASPACE: A SPACE ODYSSEY FROM THE ALIEN'S WOMB TO A GALAXY FAR FAR AWAY

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2006

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When I was a kid, I loved watching (the original) Star Trek [1] series on television. I was fascinated by the travel concept of the future. "Beam me up, Scotty!" [2] I was hundred percent sure scientists would find the way to beam us up in my lifetime, maybe not to wherever we want but to certain stations. I used to dream how that would change our lives. No cars, no elevators, even no corridors. I still believe they will find a way one day. And that will change our architectural and urban conception completely. Today we design (and live in) spaces that are connected to each other and one has to pass all the distance in-between, with or without a vehicle, to go from one space to the other. That is the basis of our three-dimensional existence. One would have a totally different life if (s)he could wake up in Antwerp, work in Manhattan and have dinner in Saint Petersburg. However we are still bound to physical space at the dawn of the new millennium.

The concept of space in architecture

In his talk for the RIBA Annual Discourse of 1996, architectural theoretician Anthony Vidler makes an architectural overview reexamining the last two centuries. For him, the common interest of the architectural theorists of the nineteenth century is time, temporality and history, including historical styles and narrative. [3] At the beginning of the twentieth century, a critique of temporality starts directing architects and critics from the concept of time to space: "'Space' rapidly replaced time, and specifically time as represented by historical 'style'." Space – as a timeless time, an eternity – becomes the new concept of the last century of the second millennium. [4]

Everything exists and moves in space (that Erwin Panofsky would call 'mathematical' or 'geometric' space). "Space and time are the framework in which all reality is concerned. We cannot conceive any real thing except under the conditions of space and time. Nothing in the world, according to Heraclitus, can exceed its measures – and these measures are spatial and temporal limitations." [5] Man would be lost without space and time. Russian Constructivist Eleazer Lissitzky who deals with the aesthetics of space perception defines four space concepts in the 1920s: Planimetric space is composed of two-dimensional surfaces, planes; perspective space is the cubic box of three-dimensional Euclidean geometry; irrational space (space-time) is composed of the multiplication of perspectives creating a four-dimensional space. Here, time is experienced only through the observer's movement. Finally, imaginary space is film space with the immaterial representation of depth and movement/time. [6] This classification summarizes the different approaches to the conception of space during the modern period.

Christian Norberg-Schulz, a follower of Heidegger, deals with existentialism, psychology, phenomenology of environment and behavior sciences. In *Genius Loci: Towards a Phenomenology of Architecture* published in the late 1970s, he defines 'places' as the spaces where life occurs. Space is a system of places. "Place" (locality) as an integral part of existence is a concrete term for 'environment'. "A place is a space which has a distinct character", not abstract, scientific or mentally constructed but qualitative and phenomenological. Dwelling is the purpose of architecture; architect's tasks are to create meaningful places and to help man to dwell. "When

man dwells, he is simultaneously located in space and exposed to a certain environmental character". The environment influences man, and place gives him his identity. There is a return to things in this approach; Heidegger defines phenomenology as "the study of the thingness of things". [7]

Norberg-Schulz talks about four elements of space: The first is physical space (center, place), that is, physical existence as it is; the second is perceptual space (direction, path), which is the temporary space, as the user perceives it; the third is existential space (area, domain) that is related to the basic relation of man and his environment. In existential space, for instance, the meaning of the concept of 'home', is abstract and permanent; it does not change with changing conditions. It "exists independently of the immediate situation, possessing its own order and stability". It stands for "our concept or image of the environment". Architecture is a concretization of existential space. Finally, he defines conceptual space as the space concept of specialists like architects, economists, mathematicians. The conceptual space of an architect is different, say, from the space of a director. [8]

Architect and city planner Paul Virilio, on the other hand, replaces architectural space with virtual space based on "computer-generated virtuality": "The new office is no longer a separate room, an architectural section, but has become a single screen, the space reserved for work and study has become the terminal of an office/viewer where the data of tele-information appear and disappear instantaneously, the three dimensions of built space being transferred to the two dimensions of a screen, or rather of an interface which not only replaces the volume of the old room with its furniture, its layout, its documents and its work plan, but also saves the occupant having to travel nearer or farther. This transmutation ... would if necessary explain the present great 'post-industrial' deployment." [9]

Exospace and Terraspace

Architectural spaces we design are terrestrial spaces. Recently, we have also started to build 'homes' like the International Space Station, [10] in outerspace. [11] I call these floating objects "exospaces". Exospace is a digitally supported extraterrestrial space; it is a man-made space designed for living beyond Earth's atmosphere. [12] Space stations are a new building type. New spatial and temporal forms of being are created. Exospace is our extraterrestrial home. Through new ways of being, exospace has the spatial potentials to influence and change architectural space.

Exospace and terraspace share similar concepts while they are significantly different from each other. The extreme conditions of the extraterrestrial environment differentiate them. Its unfamiliar context distinguishes a space station or a spaceship from a building on Earth. The special physical context of the foreign territory makes exospace a strange home to live. The extreme environment of outerspace shows the dependence of a building on Earth to its terrestrial context. It emphasizes that physical context is vital: architecture on Earth is bound to the ground, pulled by the gravitational force, defined by topography, surrounded by the landscape, located as to the direction of the sun, shaped according to the climate, protected by the atmosphere and so on. Exospace may or may not be static like terraspace. A moon base (as in 2001) is closer to a building on Earth than a space station in orbit. However, even a lunar base is different from an Earth building because of its distinct context – lower gravity, lack of atmosphere and other life forms and dissimilar surface properties.

A habitat is the natural home or environment of an organism; it literally means "it dwells" in Latin. [13] Our habitat as human beings is Earth. The human body is designed to dwell on Earth. [14] Architectural space belongs to this terrestrial habitat. Architectural space is a real, material, continuous, static and extroverted space designed for and used in the specific physical context of Earth. It is an earthbound habitable space.

Science Fiction Film Space

Space is an important subject where different art forms and media intersect. Most forms of art are 'spatial', and the concept of space is produced again and again in different media. Almost every

film includes space. Space is an inevitable part of the moving pictures “because already the framing of an image, or the definition of scale or illumination, implies the establishment of a distinct place... Presentation of a cinematic event is, thus, totally inseparable from the architecture of space, place and time”; [15] film is a spatial and temporal art. Films make use of space in three – X, Y and time – dimensions. Time as a spatial dimension is a significant aspect of the filmic representation of space. Elie Faure says: “The cinema incorporates time to space. Better, time, through this, really becomes a dimension of space ... unrolling under our eyes its successive volumes ceaselessly returned to us in dimensions that allow us to grasp their extent in surface and depth.” [16] Lissitzky’s imaginary space is his (four-dimensional) irrational space.

As a spatial art, cinema includes representational space, and accordingly sci-fi cinema represents the ideas of space of the twenty-first century. [17] With a critical gaze at the existing norms of architecture, science fiction films create new horizons in terms of space. “The architecture of film has acted, from the beginning of this century, as a laboratory, so to speak, for the exploration of the built world – of architecture and the city.” [18] Science fiction films extend the borders of the concept of space by creating the space of the future or of the non-existent. Depicting the future, science fiction is a critique of the existing spatial ideas. Maggie Toy says, “one generation’s ground-breaking science-fiction usually becomes the accepted norm of the next. Advances in materials and techniques over the century have eventually caused that which years ago was set firmly in the realms of the imagination to become reality.” [19] In a world where what is imagined is realized, the spaces designed for films do not wait long to find their places in real life. [20]

Filmmakers’ interest in realizing futuristic dreams and nightmares starts as early as 1902 with *A Trip to the Moon*. Utopias and dystopias are captured in film time. That may be the reason why architects do not design utopian cities any more. In the following section I will have a look at futuristic terraspaces and extraterrestrial spaces represented in science fiction films. I will talk about the exospaces of *2001: A Space Odyssey* and *Star Wars* and the terraspaces of films like *Metropolis*, *Minority Report* and *Gattaca*. Starting from the smallest toward the largest space, I will respectively discuss womb, home, office building, city, world and galaxy.

The Womb as Bodily Space

There is a birth scene in the episode 221 of *Star Trek Voyager* called “Deadlock” (1996) (Stills [21] 1-4). It goes on like a conventional birth in the sickbay for seven hours, until they face some difficulties. Then the Emergency Medical Hologram – the doctor – decides to beam the baby girl out of the womb [22]{.spip_note_ref} The very first space a human being experiences is his/her mother’s womb. [23] It is the ‘void’ we spend our lives in for nine months prior to birth. It is a fully equipped house for its inhabitant, the embryo, with a microgravity bedroom that comes with a waterbed (the double membrane filled with amniotic fluid), a kitchen (the placenta) and a bathroom (the navel cord). The only missing part is a view.

A more well-known birth scene is the birth of the last alien in *Alien: Resurrection*. Aliens of the Alien quartet normally use hosts or eggs for reproduction. But this queen, who is cloned together with Ripley after her death in the previous film, has a womb. The pregnant queen is giving birth to the most ugly baby in the universe – a creature half alien half human. In this scene, the humanoid alien comes out of the queen’s body and tears the membranes off outside the womb. The scene represents the liberation of the baby from the embryonic space (Stills 5-6).

We see artificial womb-like spaces in *The Matrix* (Stills 7-8). The pods are closed and confined spaces just like the womb that cuts the inhabitant off from the rest of the world. They are described as such in the script: “He is standing in an oval capsule of clear alloy filled with red gelatin, the surface of which has solidified like curdled milk. The IVs in his arms are plugged into outlets that appear to be grafted to his flesh. ... To either side he sees other tube-shaped pods filled with red gelatin; beneath the wax-like surface, pale and motionless, he sees other human beings.” [24] The difference of the pod from the womb is that one never ever leaves the pod. [25]

Fantastic Voyage focuses on a different kind of bodily space. It is the journey of a group of miniaturized scientists literally moving in a body. Here the human body with its veins and organs

turns into a chaotic space. On the other hand, the spacesuit can be considered as the smallest man-made sci-fi 'space' for humans. It is like a secondary skin that helps humans to survive in outerspace. 2001 uses spacesuits as a womb-like space. His spacesuit is the only space in which Dave Bowman can stay safe and alive in Discovery, since the ship is overrun by its "evil computer" HAL 9000 (Still 9).

Home as Domestic Space

The house is the second most private space represented in science fiction cinema. The futuristic home changes as to the spirit of the films. THX 1138, Brazil and Total Recall, for instance, represent different homes. Here I will look at the house framed in Gattaca. The Gattaca house represents the perfection of its "valid" inhabitant.

Gattaca is a story set in the not-too-distant future, as it is said in the film. Genetic engineering has improved a great deal and it is possible to choose the genes of your child if you can afford it. What comes out of the womb at birth is not a surprise any more. This new technology divided the society into two, the genetically engineered "valids" and the "in-valid" faith-children. The house [26] in the film belongs to a valid, Jerome Eugene who was a successful swimmer until he lost his ability to walk because of an accident. In the film, he starts to share his house with a passionate in-valid, Vincent, who would like to go to outerspace and needs Jerome's blood, urine, hair, etc. to fake the test results since no in-valid is accepted for such a competitive position (Stills 10-14).

In an early draft of the film script, Niccol describes the house as such: the new "Jerome [Vincent] emerges from the incinerator room into a large, luxurious loft-style condo[minimum] containing a bizarre assortment of equipment – arranged somewhat like a production line. Long, scrupulously clean metal work benches are arranged along one entire wall. Laid out on the benches in neat rows are dozens of plastic bags – some filled, some unfilled. Instruments on trays – various types of tweezers, scissors and other less familiar utensils. Round, stainless steel containers filled with hairs of differing lengths and other body matter. ... Jerome enters a bathroom containing a surgically-clean stainless steel basin, sink, shower and toilet. Beside the toilet stands a large, industrial-style stainless steel refrigerator. Donning protective gloves, Jerome opens the liquid-nitrogen cooled refrigerator. A cloud of condensed water vapor billows out. Revealed inside the fridge are racks of labeled jars and silicon pouches – some containing a yellowish liquid, some a deep, red liquid. ... He emerges at the top of the staircase into a similarly large, loft-style condominium. Through the floor to ceiling window that opens onto a balcony we see that dawn is only just starting to leak into the night sky." [27]

What does the house of a superior human being look like? The Gattaca house is not a conventional home. With its smooth stainless steel surfaces and bare concrete walls, minimalist, controlled, inhumanly atmosphere, large, cold, gray rooms filled with medical equipments, it has no domesticity. The space is so empty that the spiral staircase looks much larger than it is (it also looks like a DNA spiral [28]). The valid's modernist house has a similar sterility to the living quarters of the astronauts in 2001. It looks like a hospital, even a morgue. It is the 'perfect' house for the perfect genes. The house represents the ex-valid and the ex-valid represents his house.

Link and Cas' house in the underground human city in The Matrix Reloaded is the opposite of the Gattaca house. This small space located in a huge structure is composed of bits and pieces. With its rough gray iron walls and worn-out textiles, the space represents the imperfectness of the couple's life in Zion.

The Office Building as Public Space

In building scale – following interior space scale – I would like to talk about two office buildings, the Ministry of Information building in Brazil and the Precrime Headquarters in Minority Report. The two buildings have a few similarities. They both are large (high ceilings, large rooms), monochromatic (mostly gray) and rather dim government buildings that represent the political and technological power of the State. However, they are quite different from each other in other

aspects, just like the two films. The building in Brazil, like the story, has a Kafkaesque atmosphere. The spaces are dominant and overpowering as in Hitler's architecture. They are crowded, busy, chaotic and mechanically-equipped (communication occurs through hard copies sent in tubes through pipes). One feels insecure and small in the building. What considers the lobby: "this is a gigantic, vaguely 30's monumental-style building. The lobby is a vast impressive space containing reception desks, fountains, statues etc. Prominent are the security measures, which include automatic mobile cameras, video screens and groups of security men who search all who enter". [29]

The Record Clerk's Pool is described as such: "we pull out to reveal an infinite expanse of regularly arranged metal desks, each desk with a built-in TV console, and each (except one) occupied by a clerk. Every desk is snowed under with pieces of paper much like the receipts seen in the previous scene. More pacers are delivered to each desk intermittently by way of pneumatic tube. Office boys bustle about with even more paperwork. From the back of the room we get a view of the screens which show graphs, tabulations, figures...All of this activity is supervised from an elevated walkway by Mr. Kurtzman. Satisfied that all is well with his clerks he turns and walks towards his glass enclosed private office at the top of the room, his name lettered on the opaque glass door". [30]

The Precrime building in the future Washington DC, on the other hand, is a space where 'precogs', precognitive mutants, (literally) foresee and foretell crimes. Then the precrime police solve the puzzle and find and arrest the future murderer. This digitally supported high-tech building is equipped with surveillance devices for eye identification, just like the rest of the city, and large transparent computer consoles. It has large textured walls and spacious rooms. The round atrium with its bridges is a smaller version of the busy city traffic. The circular pool of the three precogs is located in the Precog Chamber underneath a softly lit dome, like a peaceful temple. The prison where the potential criminals are kept in transparent coffin-like pods is like a vast graveyard.

The City as Urban Space

Some sci-fi directors are more into urban scale than architectural scale. There are great examples of futuristic cities in science fiction film history. Here I will refer to two dissimilar films that represent similar cities: *Metropolis* and *Blade Runner*. In these films, the cities have two layers, the upper layer where the rich enjoy life and the lower layer where the poor suffer. The underground city in *Metropolis* and the city on the ground level in *Blade Runner* are "the other" for the city of power. In *Metropolis* the workers live and work underground while the masters live a bohemian life high up. The workers spend their lives between the underground city and the great machines, far below the surface of Earth. There is no room for nature; the workers' city is an industrial landscape. The machines between the upper and the lower cities separate the two.

Then again, in *Blade Runner*, the street level is where crime and chaos take place and the upper class enjoys the safety of their towers, for example the gigantic high-tech pyramid of Tyrell Corporation. Thanks to air traffic, the two layers of the city never intersect or meet. Nobody speaks the same language on the streets of this future (2019) Los Angeles; everything has blended until they lost their identities. It is a city that fell out of favor with the emergence of the off-world colonies. The new is superimposed onto the old city, LA as we know it. [31] The city is described as such in the script: "We are moving toward the Tyrell Corporation across a vast plain of industrialization, menacing shapes on the horizon, stacks belching flames five hundred feet into the sky the color of cigar ash. ... We are looking down on a city of the future where gigantic buildings dwarf the ancient skyscrapers. ... Deckard is sitting in the passenger seat, eating while he watches the maze of suspension bridges, platforms and catwalks swim by below. The tops of larger buildings emblazoned with fluorescent numerals and scrawls of neon ads". [32]

The World as Planetary Space

As mentioned above, the city of the future varies in science fiction films. [33] This is also the case for futuristic worlds of the future. *Star Wars* is a good example with its diverse and detailed planet

designs. As cities with different historical, cultural and geographical backgrounds have distinct architectural styles, the different worlds represented in *Attack of the Clones* vary in terms of design. [34] Coruscant, the planet-wide city of the home planet of the Republic, for instance, is a dense urban settlement with its skyscrapers, busy air traffic and high population. Naboo, the planet of Queen Amidala has a more rural and peaceful appearance with beautiful landscapes and historical architecture. The planet Luke Skywalker grew up, Tatooine, on the other hand, is a primitive desert planet.

Coruscant where the Jedi Temple and the Galactic Senate are located is described as such in the official Star Wars website: “Situating in the heart of the galaxy, Coruscant was the seat of government for the Galactic Republic and the Empire that supplanted it. Over thousands of years of civilization, the planet has been entirely enveloped by cityscapes and urban sprawl. Immense skyscrapers reach high into the atmosphere, and stretch down deep into the dark shadows. Crisscrossing the skyline are streams of unending repulsorlift traffic. Even in the depths of night, Coruscant is alive with glittering lights and rivers of traffic, a bustling megalopolis that refuses to sleep”. [35]

As the third of five planets orbiting a yellow star in the Chommell sector, Naboo is quite different from the capital: “Naboo’s surface consists of swampy lakes, rolling plains and green hills. Its population centers are beautiful – Naboo’s river cities are resplendent with classical architecture and greenery, while the underwater Gungan settlements are a beautiful display of exotic hydrostatic bubble technology. Naboo is a geologically unique world. It lacks a molten core, indicative of an ancient world. The planet is a conglomerate of large rocky bodies permeated by countless caves and tunnel networks. This causes numerous swampy lakes on the surface, which lead deeper into the planet’s structure. The native Gungans have developed transports that exploit these cave networks, but even these hardy explorers pause at venturing too deep into the planet core, for it is infested with gargantuan sea beasts with ravenous appetites”. [36]

The desert planet Tatooine in the distant Outer Rim, on the other hand, has hardly developed: “The Old Republic and the Empire that supplanted it paid very little attention to the remote planet Tatooine. ... Poor, with very little industry to boast, Tatooine is a mixture of hard-working locals attempting to extract a living from the unforgiving environment and transients visiting the world for illegal ventures. ... Tatooine has a seemingly endless desert environment cooked by the intense energy of twin yellow suns. Rocky mesas, canyons and arroyos break up the monotony of kilometers of shifting dunes. The days are hot and the nights are frigid. The air is dry and the soil is parched. Yet life persists on Tatooine, in varied, hardy forms”. [37] “Location: Tatooine” in *Star Wars* [cited 27 March 2006],

1. Armstrong, 2000, (...)" {#nh37 .spip_note }]] { .spip_note_ref }

The architectural and urban character of each Republican planet affects the people who come from there. All three planets reflect the character of its inhabitants. Even the events that take place on a specific planet are supported by the environment. The chase scene, for instance, is shot in Coruscant whereas the romantic scenes are located in Naboo. Life in Coruscant is faster and more complicated than life in Naboo. Similarly the powerful and the rich live in the capital planet and have probably never been to Tatooine.

The Galaxy as Cosmic Space

Many exospace films represent our galaxy or the universe with stars in a black emptiness of outerspace in the background, and planets and spacecrafts in the foreground. “Between the stars and the darkness we have imagined utopias beyond the reach of our travel technologies, colonizing space with our fantasies”. xxxviii 2001 is that fantasy. It is a cult outerspace film in which the vast cosmos depicts how small we are. In 2001, Kubrick brings the flatness of outerspace and the depth of exospace together. In the outerspace scenes, perspective is lost; the screen turns into a black canvas, a two-dimensional graphic composition of elegance, limitlessness, order and isolation. In the film, the continuity and infinity of outerspace is emphasized using frames in which planets and exospaces are captured partially; the universe continues off-screen.

Films have many actors and space is one of them. Space is not merely a backdrop filling the gaps between the actors. When used effectively, space acts. Few directors (such as Stanley Kubrick, Terry Gilliam and Andrei Tarkovsky) benefit from the potentials of film space. In this article I have brought forth the not-yet-realized but imagined space designs of science fiction films. Studying films in which space acts like an actor, I have tried to show how sci-fi set designs add to the future image of the narration.

Incredibly Shrinking Man is the story of a man who gets smaller and smaller everyday. Eventually he becomes so small that his own cat, a spider or a water outflow in the basement becomes life threatening for him. As he shrinks he begins to question the meaning of his – our – existence. He says, “The unbelievably small and the unbelievably vast eventually meet like the closing of a gigantic circle”. Similarly we have started from the womb, the space of the embryo – the first cell that life starts in – and we moved gradually towards the stars. If the shrinking man is right, the cell and the stars – the womb and the cosmos – are one.

SCIENCE FICTION FILM LIST

Below you find a science fiction film list that includes the films mentioned in the text and other feature films that are interesting in terms of their architecture.

Alien 1-4, 1979-1997, R. Scott, J. Cameron, D. Fincher, J.P. Jeunet
Blade Runner, 1982, Ridley Scott
Brazil, 1985, Terry Gilliam
City of Lost Children, the, 1995, M. Caro, J. P. Jeunet
Clockwork Orange, A, 1971, Stanley Kubrick
Cube, 1998, Vincenzo Natali
Dark City, 1998, Alex Proyas
Fahrenheit 451, 1966, François Truffaut
Fantastic Voyage, 1966, Richard Fleischer
Fifth Element, the, 1997, Luc Besson
Gattaca, 1997, Andrew Niccol
Impostor, 2002, Gary Fleder
Incredibly Shrinking Man, 1957, Jack Arnold
Invasion of the Body Snatchers, 1956, Don Siegel
Johnny Mnemonic, 1995, Robert Longo
Lawnmower Man, the, 1992, Brett Leonard
Logan’s Run, 1976, Michael Anderson
Matrix trilogy, the, 1999-2003, A. & L. Wachowski
Metropolis, 1926, Fritz Lang
Minority Report, 2002, Steven Spielberg
1984, 1984, Michael Rodford
Solaris, 1971, Andrei Tarkovsky
Star Trek series, 1966-2005, Gene Roddenburry (creator, producer)
Star Wars 1-6, 1977-2005, G. Lucas, I. Kershner, R. Marquand
Strange Days, 1995, Kathryn Bigelow
Thirteenth Floor, the, 1999, Josef Rusnak
Thomas in Love, 2000, Pierre-Paul Renders
THX 1138, 1970, George Lucas
Total Recall, 1990, Paul Verhoeven
Trip to the Moon, A, 1902, Georges Melies
Tron, 1982, Steven Lisberger
Twelve Monkeys, 1995, Terry Gilliam
2001: A Space Odyssey, 1968, Stanley Kubrick
Waterworld, 1995, Kevin Reynolds

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www.startrek.com

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[1] See the Science Fiction Film List for the details of the films mentioned in the text.

[2] Michael Quinion says this well-known catchphrase was never actually said in Star Trek (2003).

[3] Michel Foucault agrees: "The great obsession of the nineteenth century was, as we know, history" (1967).

[4] Vidler, 1996, 178-82.

[5] Cassirer, 1953, 42.

[6] van de Ven, 1978, 209-20.

[7] Norberg-Schulz, 1980.

[8] Norberg-Schulz, 1988, 14-29.

[9] Virilio, 1998, 6-7.

[10] At the dawn of the new millennium, the most significant project in terms of “outerspace architecture” is the International Space Station. It is the most upgraded “flying object” built in the orbit of Earth and the smartest ‘building’ ever constructed. Like MIR, the International Space Station functions as an extraordinary research laboratory in two ways; its main function is scientific experiment, and as such it is a unique space where life in outerspace is experienced and tested. Humanity now knows more about what it is like to live in outerspace. With continual human presence, the station is both a machine and a building – a machine for living in. “Witness this two-bedroom/kitchen/shower put into orbit, raised to a spatial power (one could say) with the most recent lunar module. The everydayness of the terrestrial habitat itself elevated to the rank of cosmic value, hypostatized in space – the satellization of the real in the transcendence of space – it is the end of metaphysics, the end of the phantasm, the end of science fiction – the era of hyperreality begins”, (Baudrillard, 1994, 124).

[11] A rich language like English unfortunately has a single word to describe both Raum and Weltraum in German and espace and astro in French. In this study, both concepts are widely discussed. To be able to differentiate them, I use the term “space” for my architectural purposes and the term “outerspace” for the physical universe beyond the atmosphere.

[12] This is the ‘real’ definition of exospace. In science fiction, exospace is a man-made extraterrestrial space or an alien space.

[13] From habitare

[14] For instance, humans loose muscles and bone density in microgravity.

[15] Pallasmaa, 2001, 20.

[16] Faure quoted in Vidler, 2000, 102.

[17] Science fiction reflects its time, not the future.

[18] Vidler, 2000, 99.

[19] Toy, 1999, 7.

[20] To give an example, in Blade Runner, lights in Deckard’s apartment automatically switch on when he enters the room or walks towards a corner, which is a simple technology today. In Star Wars: Attack of the Clones, on the other hand, the detail to open the angular window or glass partition (there may be a new word for it) of the balcony in Queen Amidala’s apartment is a totally new idea and may be adapted to architecture in the near future. Similarly, the idea of a wall as a screen appeared first in science fiction films like Blade Runner with an exterior screen-wall for advertisement and in Total Recall with an indoor one in the hero’s house. “What once was created uniquely by film-makers, a screen environment where fact and fiction could be offered in all combinations as a continuum in time, is now becoming an everyday part of the creative realm of architecture” (Penz, 1997, 3). It is enough to have a look at Times Square.

[21] All film stills are derived from the related movie.

[22] That must be the dream of every pregnant woman (especially in the Netherlands).

[23] Womb (or uterus) is “an organ of the female mammal for containing and usually for nourishing the young during development previous to birth” (emphasis mine).

[24] Script in Lamm, 2000, 304.

[25] Invasion of the Body Snatchers is another film that uses womb-like spaces. In this thriller movie aliens use womb-like pods to clone humans. Then they replace people with the clones.

[26] Though the Gattaca Aerospace Corporation building in the film (actually Marin County Civic Center designed by well-known American architect Frank Lloyd Wright) gets most of the credit from architects, I prefer to refer to Jerome’s house, which reflects the spirit of the film even better.

[27] Script in Daily Script, undated.

[28] The word “gattaca” is made of the letters that represent the nitrogen bases of the nucleotides of a DNA spiral (Adenine, Thymine, Cytosine and Guanine) (Ranieri, 2001).

[29] Script in Daily Script, 1983.

[30] Script in Daily Script, 1983.

[31] Ozakin, 2001, 86.

[32] Script in Daily Script, 1981.

[33] In Dark City we find an interesting example of urban exospace design. In the film the city itself gains mobility and changes completely every single night. The film depicts how space perception can be altered and misled. By the end of the film we realize that dark city is not a city but an artificial world.

[34] Though these planets are also represented in some of the other Star Wars movies, I merely refer to the second episode here.

[35] The city-planet has a two-partite character similar to the cities in Blade Runner and Metropolis: “A quite different world exists beneath the shimmering surface of the city-planet. In the lower levels, where sunlight never reaches, is a haze of artificial lights and flickering holograms, promising entertainment catering to a myriad of alien species and the full spectrum of morality. Citizens from above and below intermix in countless establishments offering escape, anonymity, jubilation and more than just a hint of danger”. “Location: Coruscant” in Star Wars [cited 27 March 2006], <<http://www.starwars.com/databank/lo...>> .

[36] “Location: Naboo” in Star Wars [cited 27 March 2006], <<http://www.starwars.com/databank/lo...>>

[37] “Location: Tatoine” in Star Wars [cited 27 March 2006], <<http://www.starwars.com/databank/lo...>>
38. Armstrong, 2000, 5.

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