Technical Image and the Built Environment:
Ideas for a Possible Design Agenda

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Abstract

Vilem Flusser introduces in his 'Into the Universe of the Technical Images' this universe
as attracting the 'existential interest of future humans'. He describes the technical images
as re-assemblies of bits of truth that are leftovers: The universe of texts abstracted the
world thoroughly. It also abstracted the orthographic rules of logic and reasoning until
only disconnected bits of information remained. The technical images compute these bits
in an attempt to make the world understandable again and to provide the possibility to
communicate its possibilities dialogical.

The consequence for the built environment sounds very simple: It has as its first task to
serve the existential interest of future humans, their search for the sense of life. The pre-
sent environment reflects the sense of life in a universe of texts: The shelter is brought to
a state where it serves the physical human needs perfectly, and the forms of the shelters
reflect the enterprise of science and technology, of progress towards a linear goal of an
industrial society appropriately. The environment of the emerging universe has to change
its focus. It has to enable the existential human need to experience the infinity of possi-
bilities, explore them, change them, in a mutual exchange of at the same time challenge
and reaction, appreciation, with the colleagues with the same specificity: consciousness.
The sense of life can only be found in this permanent dynamic, dialogical experience.

Five elements could symbolize this environment: The lonely tower, the element of con-
templative moods, that cannot be failed to notice ; The dense tubes, the continously
busy and productive element; The flat planes, the experimental element with a maxi-
mum of edges and contrast between environments and individuals, around which the
confrontation with the linear goal is fought; The big connector, the symbol for the ele-
ment that is only functional as infrastructure but inevitable as audience; And the refined
capsule, the volume for best most facilitated exchange and common experience.
Together they form an 'Institute for Culture', for sense-seeking. Site for some sketches is
Pier 40 on the Hudson River Water Front in Manhattan.
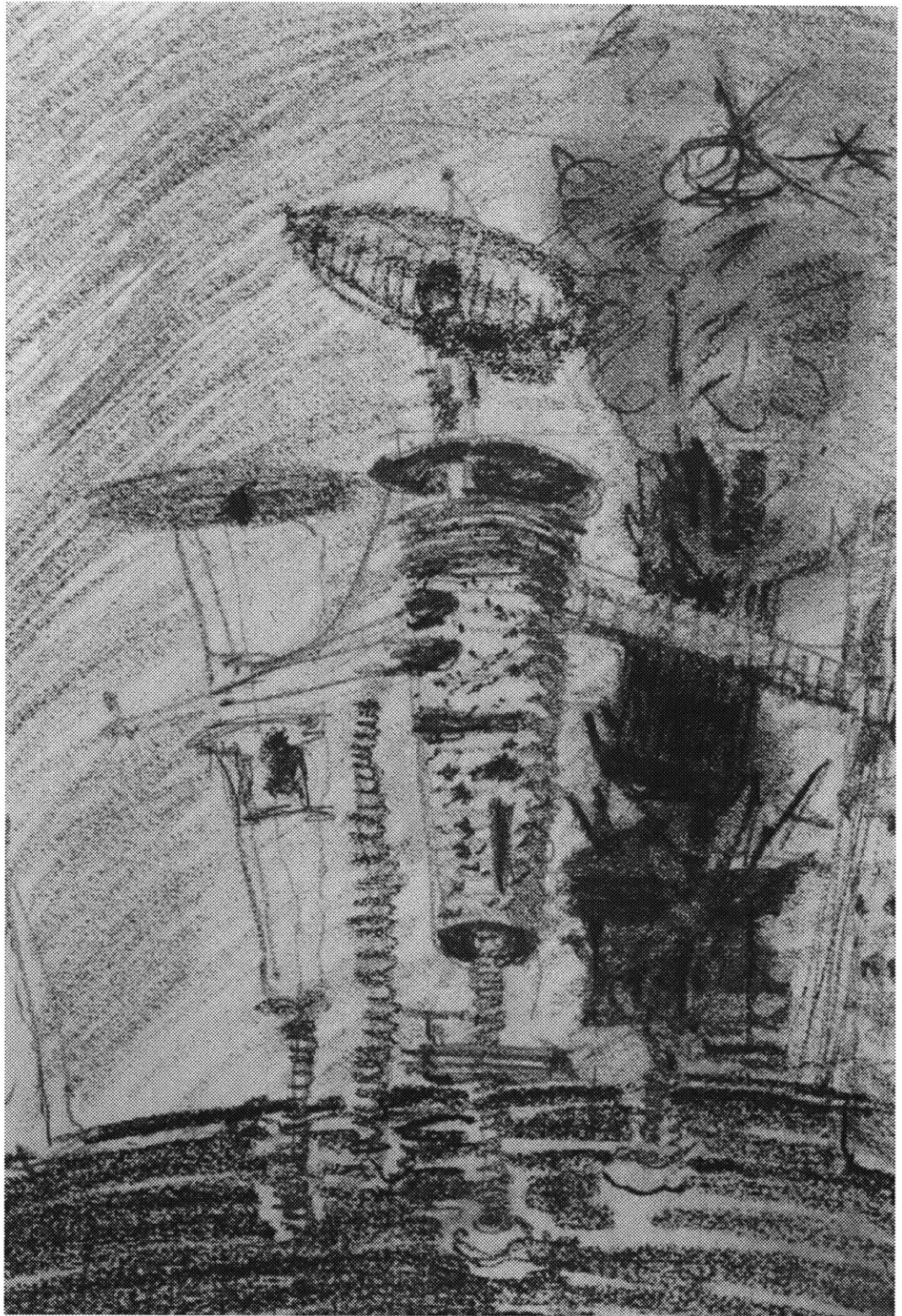
Thesis Supervisor: William L. Porter
Title: Norman B. and Muriel Leventhal Professor of Architecture and Planning
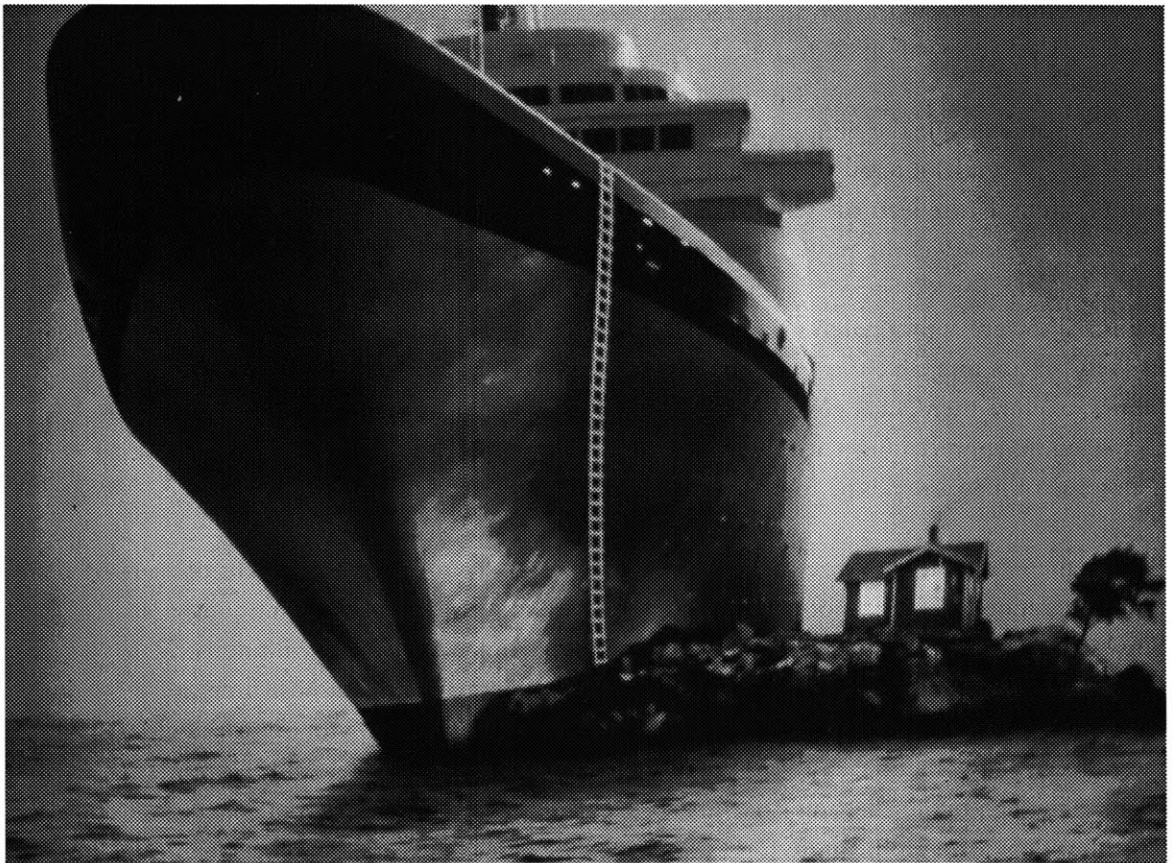
Houseboat,
from an advertisement poster in Denmark

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The Lonely Towers

Introduction

Vilem Flusser wrote 1985 the book 'Into the Universe of the Technical Images'. The work continued his research into the nature of the image, it was in particular a continuation of "For a Philosophy of Photography".

The book is a critique on the form in which technical images dominate society, and a reflection on how these images have to be re-structured to serve as the truly informative content for an information society.
The book wants to be read not as a *'futurization of the fantastic, but as a critique of the presence'*. Being a speculation, the book is allowed to name many developments, and in particular many potentials, in a very direct and simple way, and without having to consider the problems and contradictions through their implementation, that a critique today would have to discuss. The book is an incentive to reconsider the underlying potential of information technology and the underlying reasons for its success.

The following paragraphs give abbreviated translations of six chapters of the book (with their original headers). After these quotes follow some possible associations for a possible future built environment in the universe of the technical images. As a second part come associative sketches for this built environment and their possible 'story'.

The associations in written form and the sketches have re-informed each other in a surprisingly explicit way. The image of the lonely tower was the first association. Since the written associations were in the beginning all about a re-assembly of Flusser's bits to the built communities, the image of the lonely tower stood always as an obstacle in the way. In the end the image was right, and not the initial thoughts: In taking the challenge serious that Flusser poses, to go back to the roots of our being in the world, the idea of the community per se becomes secondary. Important becomes that the built environment considers as its basic task to serve 'simply' the search for the sense of life. The particular character of this search is best expressed in the chapter about keyboards, where he anticipates, *'that in a later state of automation all keys will excite me since they become devices which allow me together with all others to give sense to the dizzling chaos of the universe of bits'*.
It is only the colleagues with the same specificity that can give each other this sense of life, since the depth of scientific research has destroyed not only all hope for magic as sense and meaning, but in the end also all hope that there might be a law of nature that determines an underlying form and sense for human life.

Warning

'...A future society which synthesizes electronic images will be an adventurous society in which life is radically different. The present scientific, political and artistic categories will not be recognizable then, and even the mood of life, the existential mood, will have a different and strange color in this society... All previous utopias, positive or negative, seem to be irrelevant facing this emerging universe... Based on the present technical images two opposite tendencies emerge: one in form of a centrally programmed, totalitarian society of image recipients and image functionaries, the other in direction of a dialoguing, telematic society of image makers and image collectors....For sure technical images will attract the existential interest of future humans...We have to call this emerging society utopian. It will be at no location and in no time, but in imagined planes that blur geography and history.'

It is a peculiar idea to think about technical images as attracting existential interest. It is true though that issues that might have been basic and existential, such as production of food, search for basic shelter, even the drive for reproduction, do not necessarily dominate present life concepts, and are pushed in the background as somehow necessary but not essential.

In a post-industrial society 'work' becomes a problem. It is already institutionalized in the contemporary language that work has to be created. It is not any more the existential need or evil of work that dominates life but rather a need for occupation. Unemployment is not necessarily hardest as the lack of money, but as missing occupation, sense of life. Almost everything can be automated. On the one hand jobs disappear simply, on the other hand the ones that remain are not satisfying for a 'worker' who feels mainly as an obstacle: Without her or him the job could be done with less mistakes and more efficiency. The desire for a positive existential interest could lead society to choose a very different one, for instance the virtual realm. This is at the same time a basic critique on the current categories of life and place: home, work and public space. The mismatch between the decreasing existential character of work on the one side, but the continuing need of consumption on the other side, might be the underlying form for the notion of a consumer society. Image consumption is one extreme example here since it has no link to a basic need nor to basic work or production. This situation is then in danger to become a centrally programmed society of image recipients and functionaries, rather then one that takes advantage of the potential for dialog that is embedded in information technology: An incentive for restructurization of this society.

Abstraction

'The Universe of the Technical Images is on its way to take on the function that was filled by the linear texts, the function to transmit the information that is existential for the individual and the society. This is a cultural revolution, the reach and the consequences of which we just now start to realize. Since humans live, in difference to other animals, mainly on the base of acquired and less on the base of genetically transmitted information, it is the structure of the media of information that has a decisive influence on our life style. When texts are replaced by images, we perceive, recognize and evaluate the world and us different: not any more one-dimensional, linear, processual, historical, but two-dimensional, as plane, context, scene. And we act differently as well: embedded in fields of relations and not dramatic.

....

It is a temptation to say: The linear texts only played a temporary role....and we are presently returning into a normal mode of living, into the two-dimensionality, into the imaginary, magic, and mythic....The magic of the technical images and the magic-ritual behavior of the person that is informed by the technical images seem to support this opinion.
This essay wants to prove this opinion as wrong... Technical images base on texts, emerged from them, do not represent real surfaces but mosaics composed of bits... This chapter proposes a model to clarify the different 'ontological position' of traditional and technical images.

...

Third step: Homo sapiens has inserted between himself and the object an imaginary two-dimensional mediating zone . These are the traditional images.
Forth step: 4000 years ago another relation was inserted between humans and images, the linear texts...This is the step of understanding, telling, the historical step. ..
Fifth step: ... Texts do not allow any more for the explanation of images... And they disperse into bits that have to be re-assembled. This is the step of calculation and computation. Here are the technical images.

...

One might believe that it is enough to define the technical images as ones that are generated by technical devices. But it is exactly this apparent self-evident assumption that is...insufficient. ...We can only act appropriate in this mode of life that is generated by technical images if we try to go back to the roots of our being-in-the-world.

...

... Imaginations in images are circular, one gets from another its importance and vice versa. This interrelation of meaning is called magic... To find a way back to reality without negotiation through images, to de-magicise the action, one has to detach the imagination from the context of the image

and to find a new order... This is a translation of imagination into terms, an 'explaining' of images, a splitting up of image surfaces into lines... This is the conceptual universe of texts, of calculation, of story and explanation, projects for non-magic acting.

... Texts are rows of terms, ordered by rules, 'orthographic rules'. The matter is seen through these rules... The structure of the text is imposed on the matter... Both image and text are 'meditations'. This [similarity] remained hidden for a long time since the orthographic rules' (in particular logic and mathematics) resulted in a much more efficient action than the previous magic. And it is not until recently that we realize that we do not discover the rules in the matter (for instance as laws of nature), but that they are imported by our scientific texts themselves. That is the reason why we loose confidence in our orthographic rules. We see in them rules of a game that could be different as well, and with this realization the ordering lines disperse and the terms spread out. The described matter disperses into a cloud of particles and quants, and the writing subject to a cloud of bits of information, moments of decision, and actoms. What remains are points without a dimension that are neither tangible nor imaginable not understandable... But they can be calculated and...computed... Mosaic-like assemblies of points emerge: The technical images.

....

As a consequence this is the difference between traditional and technical images: The first ones are representations of objects, the latter computations of terms. The first ones emerge through imagination, the latter through strange force of visualization after the loss of confidence into rules.'

This proposed model is one of ongoing and continuous abstraction.
In mentioning the span of 4000 years in which the texts were supposed to form culture, Flusser also talks about an important span in the history of the built environment:
Organized built environment came into being, the formation of villages, the ongoing slowing down of nomad movements, and the cultivation of the permanent residence.
If the abstraction back then was one from movement to permanence, from area to spot, the present transformation could be one from permanent to potential, thus decreasing the spatial relevance of the 'where' further.
Similar to the difference between traditional and technical images, although both might look the same, there would be a difference between a nomad and a new transitional person, a traditional nomad and a technical nomad. Where the traditional nomad had the urge to be transitional as an answer to physical constraints, the technical nomad is transitional in order to understand the world he or she is living in.

The permanent residence was only apparently a solution with the most efficient success, but since the orthographic social rules of its ties are doubted, the family, the class, the

nation, and the urban community, it proved un-satisfying any further. The 'computation of bits' is thus not linear with the aim of permanence, neither with the urge to give an answer to physical constraints, but the measure to create out of an infinite number of possibilities the one that is at a given moment and for a certain amount of time the most informative one.

This 'information' might then be a physical form of assembly, or, more probably, an act that has to be facilitated by some form of built environment.

'It might be possible to risk the definition that an apartment becomes a home through its linkage with the world around, and remains it as long as it is not only the habits that bring me back into it, but the infinity of human relations, the continuation of common experience, learning: a still open participation at life.' (Abbreviated translation from Mitscherlich, Alexander, The Inhospitability of our Cities - A Call for Riots, 1965, in: Koelbl, Sack, Das Deutsche Wohnzimmer, p.136)

The universe of texts is described as one that results in more efficient action than the previous magic. Without having as a base the accumulation of knowledge through logic reasoning and scientific approach, and without having as an incentive the desire to reach a goal through continuos progress, the construction and organization of the present built environment could not have come into being: The universe of the 'textual' built environment is one of continuos abstraction. This continuos abstraction is moving towards the goal of a complete understanding of the world.

The built environment mirrors the process. Reasoning continuously challenges preconceptions that base on traditional images (the abstracted version of an existing environment). Dimensions exploded with the pyramids or the Seven Miracles. Materiality and structures are breathtakingly reduced in Gothic Cathedrals. The development of tension-proof materials broke the verticality of the gravity line. The building as an extension of the natural skin gets abstracted to a variety of different functions and representations.

The universe of technical images emerges at the point where understanding is complete, and where the goal is reached. In the field of construction for instance this is the infinitesimal calculation; It understands the smallest possible parts and the mutual interrelation between each of them.

At this point the 'interest' shifts; what is solved is not informative any more. The flexible, moveable, the deconstructivist, the processual, the ephemere might be seen as (preliminary) attempts to respond then: They seem to attract permanent attention, they seem to stay always interesting.

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Something remains un-satisfying here: It does not seem to be enough to just define the traditional images as abstractions of the given, and the images of the universe of texts as illustrations of the search for a goal of understanding, and then define the 'new' images as such that simply try to break all the rules. This might be called an attempt to abstract the dynamic, maybe contradictory in itself.

Abstraction happens easily. More and more people on the same surface of the planet earth must make life more abstract, more dependent on things outside of a direct and tangible realm of the single individual. Once started, growth in number and following technology (or vice versa) re-influence each other and have to handle each others developments – an automatism. Automation is the final state of this development. It is abstract to the point that theoretically all its processes run invisible and without need to influence them. To specify this as the point to re-consider 'sense of life' seems to be right.

Abstraction is a trap. It tries always to define an underlying reason for each action, to generalize and to abstract rules that are supposed to be valid forever; Each abstraction therefore takes away a bit of continuity of sense-finding and comes closer to entropy. To avoid the permanent urge for abstraction it might be necessary to get aware of different possibilities of mindsets, for instance a mindset of conscious choice, as a method that is fascinating enough to just refine the process, the way, instead of heading towards a goal. The re-assembly of disconnected and independent bits can happen within a bandwidth from random ('chimpanzees and other idiots') to the mere replication of given patterns. At some point in between there human conscious choice is possible and necessary.

That 'choice' plays an important role in the reconsideration of an abstract world comes from the fact, that abstraction has become an automatism, the 'doing' is somewhere going on anyway and is not an issue. What is the issue is to re-define the role of the 'consumer' of these automated processes. Consumption is a part, but one that does not make any sense out of life, since it is by definition the most dependent and the least initiative part. Consumption is an example of un-conscious choice.

In particular the term freedom that is hidden in choice attracts attention: the free heuristic choices of the chimpanzee have nothing to do with the specificity of human freedom. The specificity could mean to play a transcended game. The bits are there and have to be taken for granted. This might be the design attitude that is appropriate to the way sense-seeking takes place in an universe of technical images.

Imagination

....

Images are supposed to be guidelines for action...Images do not show objects but matters...There are two hindrances. First of all each representation is subjective...Second each representation is temporary, since the standpoint continuously changes.. In order to make images to guidelines...they have to become inter subjective...They have to be published.

...

Symbols that are ordered to matters are called codes ... To be inter subjective...each image has to be based on a code which is known in society...a traditional code. ... Each image has to be part of a continuos line of images, otherwise it could not be deciphered. This is the meaning of 'publishing': to put a subjective representation into the code of a society... Each image will be a little different from the previous one... It will change the code ... and will 'inform' the society. This is the power of imagination: to allow the society that is informed through images to have new experiences and sensations and to arrive at new evaluations and actions.

But it is a destructive anachronism to consider the mutations of the image code as development... It is not the intent of creators of images to produce originals ... but on the contrary...to transmit tradition as un-disturbed as possible. They tried to reduce their subjectivity to a minimum...The pre-historical cultures tried to keep an un-changeable, eternal code.

...If ... the universe of the traditional images changes, then by...un-intended accident. ... It was not until the linear texts emerged and with them the historical and determined consciousness, that one can talk about a 'history of images'. Only then the imagination serves (and opposes) the determined thinking, and then image makers are concerned about 'originals', about conscious introduction of new symbols and the production of information. The accident changes into the idea. The images of our history are infected by texts, they illustrate texts, and the imagination of our image-makers is infected by determined thinking, it tries to capture processes....

The universe of the traditional images is a world of magic matters. A world of continuos repetition of the same, in which everything gives meaning to everything...: a world full of meaning, full of 'Gods'... Everything is full of meaning, everything has to be satisfied. The mood of living of guilt and punishment.

The technical images seem to resemble the pre-historical images. But they are on a completely different layer of consciousness. ... Internal representation is completely different from imagination, something radically new...'

All images that we see are ones created in an universe of texts.

They have left behind the function of traditional images to transmit guidelines for action, encoded in an inter-subjective way, part of a continuos line in order to be deciphered on the same base as the previous one. They do not try to reduce subjectivity to a minimum, and are not representing an un-changeable, eternal code.
The sense of life in the universe of the traditional images might have been the task to stay as closely as possible to the eternal rules, which gave the security to do the right and senseful thing.

The function of images in the universe of texts is the one of illustration of an idea. They are originals. Not their graphic features are the main component of information but their underlying form, the code of which is embedded in the orthographic rules of texts. The sense of life might have been the progress in the deciphering of the underlying form. With a doubt of the orthographic rules of the universe of texts these illustrative images can not be read any more. These doubted orthographic rules might be the forms of how a living is earned, of what a home is, how the social community is composed, what the means of movement are, but also rules of proportion or 'good taste'.

There are many examples for possible doubts about the rules: The reason why a certain streetscape or a certain construction system came into being might long be de-validated, or the reason why a certain measure is undertaken might have its offspring in preconceptions and assumptions that can be doubted.
The narrow and spatially sophisticated medieval street has long deprived the neighbors off their sleep through the awkward noise reflection in the canon it forms. The functional high-rise building that was supposed to provide light air and sun as a quality, is only present as a problem of loneliness, separateness, social isolation for its inhabitants. The super-dense and unhealthy speculation quarters form the time before the depression might be inhabited by air-conditioned swank lawyer suites. The thick tension cable is doubted by infinitesimal calculation and declared a no-load bearing decoration. The higher ground floor and the lower top floor of residential villas do not any more house the belle etage and the servants quarters, but are equal units with accidentally different room heights. The minimalist economic outlook of the office tower might with a little increase of petrol prices the unbearable expensive energy waste. The well thought-out residential quiet paradise in the suburb might change from a case study for future dwelling to a deadly boring hell on earth when the inhabitants get unemployed. The perfectly shaped urban family apartment looses all is qualities when the family disperses,

its wall-to-wall carpet becomes only an obstacle when the new residents start producing sculptures in the place.

The construction site of the suppression of the elevated Massachusetts turnpike is not an important measure of infrastructure improvement but a gentrification of a realistic situation, introducing an even more evil form of double-double cheating. Not only does the image of construction not match an act of 'determined consciousness' and represent the need that its image conveys; Not only it conveys the completely wrong image that physical work is still necessary and not long ago fallen into decay; Not only it conveys to be of improvement in terms of our environmental qualities where it in reality is a huge waste of resources to extend the lie that physical dependent work is the sense of life –
On top of everything the images that are shown of its future inhabitation are traditional. They dwell both in the way of their representation and in the things that they show only on codes, archetypal preconceptions of what beauty is and order and paradise; They are not aware that there is a reason why the highest form of blasphemy that the bible mentions is the look back to paradise, the imagination of god and his world. They are not aware that hiding the truth under ground is a truly anti-informative act, not of an information society.

The technical image in the 'literal form' of a world on the screen is the only reliable source of information in this situation: At least here the image can be made what it is supposed to show. Not this literal form of technical image though is the important notion, but the reason for its success: End of mismatch. It is not funny to be cheated by the dinosaurs of long faded-away truths, and to be deprived off the search for a 'meaning in life' by the artificial keeping-alive of convenient solutions for this question.

Life in the virtual realm is by definition 'potential'. This potential might be the blueprint of the universe of the technical images. Potential is different from hope. One might call potential the permanent awareness of infinite possibilities, and it increases its dynamic with each 'solution'. Recognition, re-combination, and their communication are themselves attractors, strange attractors of a dynamic system. Hope is more dangerous: It could mean to still wait for a better world.
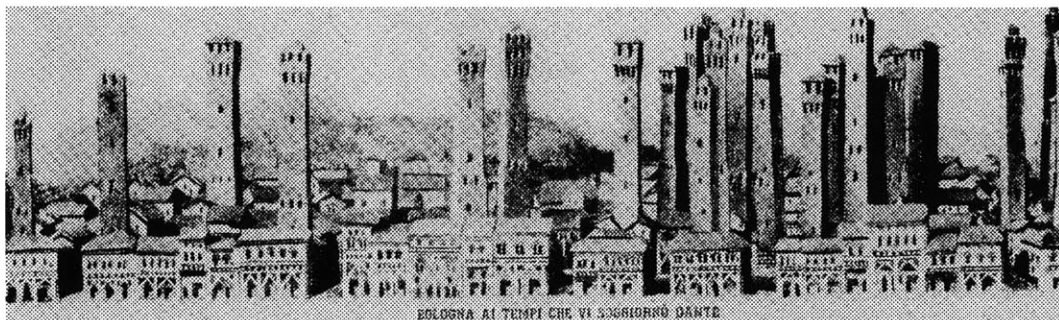
Bologna at the Time of Dante, from: The Skyward Trend of Thought, ...

Concretize

The guiding treads that ordered until now the universe to processes and the terms to judgments are about to disperse, and the universe starts to dis-assemble to quants, and the judgments into bits of information. The guidelines begin to disperse since we followed them to the core of the universe and the consciousness... In the core of our consciousness we are about to figure out the smallest countable structure of our thinking, feeling, and wanting (for instance the calculus of proposition, the theory of decision and the calculus of action in actoms). Linearity disperses therefore spontaneous and not for the reason that we had decided to leave the guidelines. ... We have to risk the new.

And this is a real risk. With the dispersion... a gorge opens up, the gap of the intervals between the bits and the loss of dimension and infinity of the bits themselves. It is not possible to live in such an empty and abstract universe and with a dispersed and abstract consciousness. One has to try to re-assemble the bits to make them concrete (understandable, imaginable, treatable). ...

The technical images are the expression of the attempt to re-assemble the bits around us and in our mind onto surfaces, in order to fill the intervals between them. ... Neither hands, nor eyes, nor fingers can do this. The elements are neither graspable, visible nor tangible. Therefore apparatus have to be invented that can grasp the un-grasp able, imaginate the un-imaginable, conceptualize the non-understandable. And these apparatus have to have keyboards in order to be controlled by us.

...

Apparatus are stubborn artifacts: They should not be anthromorphized even when they might be able to simulate human thinking. They do not have any problem with bits: They do not want to grasp them, imagine them, comprehend them. For them bits are nothing else then a field of possibilities. ...

By virtue of their nature bits are nothing else then possibilities from which by accident something emerges. Possibility is ... the 'stuff' of the emerging universe and the emerging consciousness. ...

The two horizons of 'possible' are 'necessary' and 'impossible'; towards 'necessary' the possible becomes probable, towards 'impossible' it becomes improbable. The Mathesis of the emerging universe and the emerging consciousness is the probability. From now on the terms 'true' and 'wrong' only describe un-reachable horizons. ...

'Probable' and 'im-probable' are informatic terms, whereby 'information' means an im-probable situation: the less probable, the more informative. According to the Second Sentence of Thermodynamics the emerging universe of bits tends to more probable situations, towards des-information, towards an more coherent distribution of bits, until they loose form ... entropy. ...

...

Such ... speculations allow to get closer to the intent with which the image-generating machines were invented: to generate im-probable, informative situations, to concretize the invisible possible to

the visible improbable. ... Humans are ... engaged against the stubborn tendency of the universe towards dis-information. Since humans raised their hands against the nature to stop it, humans try to impose information on the 'natural' way of things. ...

There is a peculiar inner dialectic. ... The apparatus are programmed to create im-probable situations. ... But this means that the im-probable situations are in their program as in the course of implementation more and more probable, intended situations. Thus changes into entropy for the recipient of the technical images - through the back door - what was programmed as negative entropy into the apparatus.

This the apparatus inherent contradiction comes from the fact that they work the same way as the universe, automatic.

... This is the definition of 'automatization': a self-perpetuating computing of accidents, from which the human initiative is excluded, and a stopping of this mechanism at informative situations intended by the humans. The difference between apparatus and universe is that the apparatus is controlled by humans.

The danger that is hidden in automation, which is that the apparatus continues even when the intended informative situation is reached, ... is the true challenge for the producer of technical images. ... they are people who press on keys to stop the apparatus at a situation that is intended by them ... people who's intent it is to control the apparatus despite of its more and more autonomous automation and thus to preserve the human decision over the apparatus. They are people who try to turn automated apparatus against automation. They cannot work without automated apparatus ... But as well they cannot leave the image production to the automated apparatus, because then the images are redundant, situations that can be anticipated according to the program of the apparatus, non-informative situations.

...

The act of producing technical images tries to make concrete (to return from the extreme abstraction to the imaginable), the act of producing traditional images makes abstract (goes into distance from the matter).

It is the Faustian theme that leads to the universe of bits; the deal to get to control one-self and the world, but to have to sell the soul for that purpose; the soul as the only all-encompassing traded against the in-depth knowledge, even against the in-depth doubt of the existing, the magic, the truth, and the soul against the temptation to invent the world new. The technical image as the artificial soul, a whole on which all hopes and dreams are relying, but also on which the quest for sense and understanding is posed.

Maybe this is in-vain hope, but one should ask for its underlying form. The technology succeeded to both enable and bring modern humans to play, dream, and communicate, and no-one asks for utilitarian arguments. As soon as it is about screens and computers those arguments become careful, and as soon the images are shown and the infinity of possibilities is emphasized, they are swept away. The machines are not that good, therefore the intelligent utilitarian argument seems to be worse. This might be the 'dream-like mood of the society' that Flusser mentions, one that Yamamoto depicts in his renderings for Paris: Individuals in naive play high above the city and detached from the 'real' world amidst of a high-tech environment, seeking for their soul rather than doing 'useful' work.

It might be possible that in a history of the built environment the term 'solution' is associated with disaster. The temptation to create a real solution in the built environment is stronger than the most sharp thought about what the actual intention at a point might be. Societies seem to have died at the point where they were able to freeze their idealism into eternal shells, the only and banal future of which would not be to be developed further, but would only be to get destroyed or to decay.

From the point that they were expelled from their 'integrative' pre-industrial home, Modern Societies had to connect built environment with the notion of 'problem' and had to think about a built environment in terms of solution.
'Home' is then abstracted to a set of factors that serve certain specified needs, and is part of a field of needs the fulfillment of which is supposed to form the Modern Individual. The diving into a logic of looking for and specifying problems as part of a scientific mindset, wants to in-evitably solve these problems with solutions.

It could be the main benefit of technical images to make clear that there is no solution in terms of the sense of life. Fortunately the field of possibilities is not only infinite, but becomes even more so the more one goes into detail. It is possible to get completely lost in the infinity of the screen and what is behind it without ever arriving somewhere, but with having only opened up more sources, informations. What makes for the attraction of the technical images is that their 'solution' is to make the infinity of possibilities visible and tangible.
If the nature of consciousness is the desire to not accept the given but to transcend and understand its underlying form, the term solution is the opposite of consciousness. Solution is without possibility, and is un-informative, the incorporation of the probable and the possible.

The apparatus that is dominating the emerging universe converts the '*in-visible possible into the visible improbable*'. It is important to look also at this sentence not with a mindset of solution, which means: not to try to figure out what could be an improbable, and how to implement it; It is already the visualization of the possible, the implementation of the possible, that is improbable: too large is the field of possibilities, and, more awkward, too large is the field of possible argumentation and justifications; the emphasis is on the virtual, the potential of 'possible'.

This is different from the motion of flexibility: Flexibility does not make the many possibilities visible but provides solutions that incorporate a multiplicity of necessities. Flexibility tries to solve with a linear mindset a dynamic problem. It solves the problems of more than one possibility instead of visualizing the possible itself.
The visualization of possibilities might rather be one different from the other, not solving any specific problem, but incorporating only one specific possibility. If one possibility succeeded to become an artifact, to become visible, then it seemed to have elements that suited the 'human engagement against des-information'.

Maybe the terms possibility and solution are then not at all compatible. There is only a solution for a problem but not for a possibility. To work in the realm of problem and solution might in case of the built environment be called heavy design, one that tries to make the world better by solving its problems. The light designer steals him or herself out of the vicious circle: Who defines the problem? From the side of the authorities clandestines and squatters are a problem, no control is possible and no authority, so with the argument that the health conditions are a problem the poor heavy urbanist tries to solve peoples' health problems; only to realize afterwards that people become insane in the solution areas. The history of idealism is one of its abuse. In showing the impossibility of understanding and complexity as a concept, and in focusing only on the output and the image and not on the understanding of their coming-into-being, the universe of the technical images makes the non-understanding into a distinct philosophy.

The light designer gets to know that the probability to deliver a good and appropriate result of the design process is higher when the majority of the time is spent to browse consciously and in an 'organized' way through an infinity of possibilities, compared to spending the majority of time to analyze situations, precedents, to name problems, find proof for a thesis, and to ask for and organize participation.
It is often mentioned that the particular quality of 'vernacular' building is to have to

operate in the realm of its local possibilities. 'Unfortunately' local possibility is not an issue any more. But maybe the light design brings the word possibility back, and the light designer is a person who operates with the set of possibilities that can be achieved at one time and one place. This achieving will become an issue: From where do the possibilities come, and how are they translated, used, implemented? Most probably a method for possibility-fishing, or browsing, is composed of the ability to first reduce givens in all fields to basic entities with rough surfaces, and then to combine seemingly incompatible bits of information with each other to coherent puzzles. This enterprise is dependent on the ability to filter rather than to analyze in depth. It is not a process of creation in the classical sense, of initiating a movement, but rather one that has to stop overflow at informative points.

The light designer only visualizes possibilities. The light designer is aware that the world cannot be understood any more.
It was possible to understand the typewriter and the bicycle, it is even possible to understand the car and the toaster. This gave the illusion that the built environment of the car and the typewriter could be understood by everyone as well, and could be categorized in problem and solution. With the technical images and the machines of their production it becomes clear that the understanding has to move to another layer. Except for a handful of experts, the machine cannot be understood any more, and the software can only be understood on its surface. To have control over the machine means to get to know about its features, its possibilities. The relation between cause and result is thereby subject to definition. Typing the word 'bye' on an UNIX machine will write bye in the word processor, will terminate a chat in the zephyr window, but with a maybe accidental move of the cursor it might stand for the deletion of years of work, and possibly in the worst of all cases for the destruction of the world.

A very harmless but instructive and impressive example for this light design of possibilities is Louis Kahn's church and school. Originally intended as two different buildings, Kahn sensed the possibility to serve the community better and convinced them to build the church and classrooms as one building, the church as center with the other activities as nutshells around it. The thinking here is one of more transcending the given than specifying a problem; There was no problem, only a possibility. To ban the word problem from the designer's vocabulary might be the first step to be able to anticipate an environment in which then as well not goals are the aim but the permanent hanging-out, discussion and exploration of 'possibility'.

Keyboards

The world which is dis-assembled into bits through the abstraction of all guidelines shall be re-assembled to become again experienceable, recongnizable and treatable. This is the engagement of the people who produce technical images. ... We need devices that can grasp into the pile of bits. These devices are called keyboards. ... To understand our being in the world when we press ... on keys we have to look closer at this pressing.

...

...

...

To press on keys could mean blind attempts in the hope to find something by accident. 'Heuristics'. This is the method in which the chimpanzees write typewriter, whereby they must produce the same text like this one by accident in the long term. ... I choose my keys by purpose. ... Each pressing on a key is for me a free decision. This is ... the difference between me an the chimpanzee: I shorten by purpose the astronomic time that is necessary for the production of this text in the heuristic method to a human time dimension. I am different from the chimpanzee and similar idiots through the fact that I produce the same as they do, but much faster. A down to earth description of human freedom and dignity.

The matter could be seen differently though. While the chimpanzee, while punching, dives into the blind game of accident and necessity, I do transcend the game. When I hit the keys I do not look at the game (the typewriter) but I have the text in mind. ... Is there a possibility to discover in my text a validating, informative intent in distinction to the chimpanzee's text? If yes, human freedom and dignity can considered as the specific ability to realize values.

This is the distinction between human and artificial intelligence, between purposeful and automatic generated informations. ... Is it possible to distinguish a text that is generated by a word processor ...from this one? ... The word processor does not punch blindly but is programmed. The text is anticipated in its program. ... The text is an anticipated accident.

... Is it possible then to call a chimpanzee more free than the word processor? And the stenotypist who has to copy this text ... is less free? ... Where is my place in this hierarchy? An un-comfortable question, since it blurs the specificity of human freedom.

... Do we then have to look for human freedom in the production of keyboards rather than in the punching of keyboards? Not in the programmed act but in the act of programming? ...

... It is absurd to attribute this ... text to the inventor of the typewriter. ...

... The step back from the keyboard to the program and from there back to the programmer is a step in the abyss of eternal regress. ... It is not possible to have both: the stubborn automatism of keys grasping in the pile of bits and at the same time programming intent. ...

... As a consequence I know that my keys are inviting me to a complicated determinism of accident and necessity. ...

...

The first gesture which frees humans from their determinism is the act. The second is the imaginative contemplation. The third the logic explanation. And the forth is the computing punching. ...
The keys free us from the urge to change the world, to control it and to explain it, and they free us for the task to give the world and life in it sense.
... This is the excitement of the people who produce technical images: photographers, camera mean, and inhabitants of the future society who synthesize images with computers. The excitement to give sense, the degusted overcoming of physical work, ideology...
This situation in which the keys will free up humans for giving sense to the world is no yet reached though. ... Temporarily (and by mistake) there are still two types of keys. The first type 'sends' messages ..., the second receives messages ...
These two types ... rely on outdated ideas and do not match the true character of keys, because they rely on the idea of discourse. ... In the universe of keys is no 'private' and no 'public' left. The producer generates the message not in a private room but in an organization, in a complex of devices and functionaries. The message runs through an electro-magnetic field that cannot be called 'republic'. And the room in which the TV set stands is open to infinite messages and cannot be called private. Sender and receiver are calibrated on each other and work as one unit. The keys have blurred the borders between private and public, they have intermingled the political with the private realm and devaluated the traditional idea of discourse.
... It is the character of keys to connect with each other 'dialogical' ... , to form networks, and not to work as discursive but as dialogical devices. ...
... We are not allowed to use terms such as 'Mc Luhan's cosmic village' in the emerging situation that is governed by dialogical connected keys. Where there is no public market place and no private farm houses there is no village. The network ... resembles more to the structure of the brain. ...
Presently ... there are still defective keys that only allow to choose but not to voice (for instance the keyboard of the TV set). That is the reason why presently there is still a contradiction between freedom of choice and existential freedom. ... But we can expect that in a later state of automation all keys will excite me since they become devices which allow me together with all others to give sense to the dizzling chaos of the universe of bits.

...

... This is at the same time creepy and exciting ... : That the technical images are fantasies which give the world and us sense.

Together

When Flusser says *'that in a later state of automation all keys will excite me since they become devices which allow me together with all others to give sense to the dizzling chaos of the universe of bits'*, the emphasis lies on the together with others. Who else could it be that could gives the sense, then the colleagues that share the same specificity? The 'natural' myth around the sense of life is destroyed by too sharp and too intelligent argumentations, leaving life as the result of a somehow accidental development in the universe and as a process with certain physical structures and properties. The sense of life can only be in the specificity of the accident human itself, and what the accident can communicate with others of what it is doing and thinking and imagining and changing. The universe of the technical images could be the moment where the information character of human activity – only what is communicated to others, appreciated, evaluated is 'worth' something – and with it the specificity of the human nature comes to a blossoming. The entropical des-information of an individual rummaging-about is exposed by the information age to what could be its underlying character: fear. To fall out of money-linked civic appreciation, to become deprived off any private and quantitative 'wealth', and to focus on building up individualism in any form to not have to acknowledge the reality of anonymity. This might come from the lack of possibility to communicate the 'private' culture and from the impossibility, in a spread-out mass society, to have a simple private realm with a well kept blossoming garden that shows obviously the abilities of the inhabitants to as many people as possible.

May the internet be shallow – no problem with that. To start to put citeria of quality on it, or even worse, to install a quality control, is already reactionary. If the net is an easy way to display the culture of the 'home', everybody should be allowed to do it, and to get comments and criticism, appreciation on it; The important thing is the appreciation that happens here without money being primarily involved – a somehow revolutionary step for a society which has 'officially' based almost every form of appreciation on money. For the individual, from birth to death the amount of money that the society is willing to pay for her or his performance was supposed to be the only from of appreciation that this society has to give – a really nasty compromise to synchronize masses onto one system of values. But it makes control and order easier and finally seems to perform as the dream of one truth for the world, one world rule – a desperate but quite succesful attempt to understand the world and to give it sense. But despite all attempts to commercialize the web, it still remains mainly a display of private interests, ideas, homes, and, as was its original intent, a publishing medium for scientists, making information accessible and visible, and quick reaction and continueing discussion possible.

The wave of success of this medium and the wave of 'useless' information that is carefully displayed and maintained as well as the flourishing of all sorts of discussion lists can be seen as a blueprint for a desire to form an informative culture.

This culture is defined as the attempt to, together as a group with the common specificity of consciousness, give life the appropriate form of sense, as a continous and never ending enterprise, and without a goal to be reached.

Culture

From there, the imagination is easily acceptable that a future society is mainly busy with creating for each other interesting, informative situations, surprising and challenging each other with new conclusions, combinations, ideas, informations. Basically a cultural society, where culture is rightly interpreted as the fascination of giving and taking, of teaching and learning at the same time, as a form of expression of each individual (and not in the perverted form of a small class of givers and a large bunch of takers, consumers, as one might be tempted to see the current widespread understanding of culture). The physical form and behavior of this society might be the one of a large club, reading room, or the one that continously travels in comfortable trains or zeppelins or superliners, or houseboats, where not the speed of the travel is of any importance, but only the experience, the stimulation, and the compnay of the travelers (and of course the possibility to hook up to the internet).

Culture Rooms

A permanent culture as the main content of post-industrial living needs 'culture rooms'. These are its authentic places. Since the society supposedly does ONLY do culture, the entire building stock might transform into culture places. It is not important for what USE the places are designed. It is important that they accomodate the blueprint of the technical images properly: they are expression, they allow for any form of 'useless' activity, they are organized in a manner that facilitates the 'hanging out' with the colleagues best (to exchange the latest informations about the sense of life) and that facilitates the sharp concentration best (the preparation for or the reflection of those exchanges). This is a very tense life, much tenser than the life of hard working coal-miners; the excitement of contributing to the sense is accompanied by hard times of lacking any easy mechanism that keeps busy, or that makes happy. The places of this society have to sup-

port all these times: Places for ecstatic celebrations where the newest assembly of bits and the latest fashion of probability takes place. Places for the understanding and communication with long passed-away sense-combiners. Places for deepest depression and concentration, apart and detached from everywhere and everyone, places that suit and challenge at the same time, but that allow for quick escape into all directions to avoid suicide. Places for quiet contentness and long-lasting contemplation. Places for bursting business and consequent recreation. Places for stubborn killing of time, for useless waste. Places for the recombination of tunes and colors.

In any case: These places never forget the togetherness of the enterprise of finding sense. Only very few sense-finders prefer to quit the closeness of the colleagues and to hide in jungles and mountains, and to report to the specificity-sharers bits of sense and interesting observations from there. They can do this, since they are the exception, and they are kept in mind in the big centers of sense-generation. They do not share the destiny of millions of suburbaners who basically are forgotten and hidden in the mass and uniformity of their existence, and whose reports are boring statements of recurrent problems and moves, all their possible sense-finding activity numbed up with large beams of television, and sense-finding time subtracted through hours of commuting and listening to answering machines.

The places of the sense-finders are not hidden; if the sense-finder wants to hide then he or she does this visible, even more visible necessarily than when he or she does not want to hide. All draw bridges are then up, windows closed and darkened, the sewage cleaned in the own filter, the only sign of life up and then a small cloud from the smoking place. First sign of a returnig to the world might be some sewage coming to the main cleaning plant, or a sudden burst-out with tremendous noise and with a flow of electronical signals all over the world, or, more probably, a hectic reconstruction of bridges to reach a place where to implement the new assembly, the new combination, the new informative improbability.

But until then the sense-finder colleagues have to very carefully deal with the lonely sense-finder, and have to invest all their sense-finding energy to give her or him the necessary support.
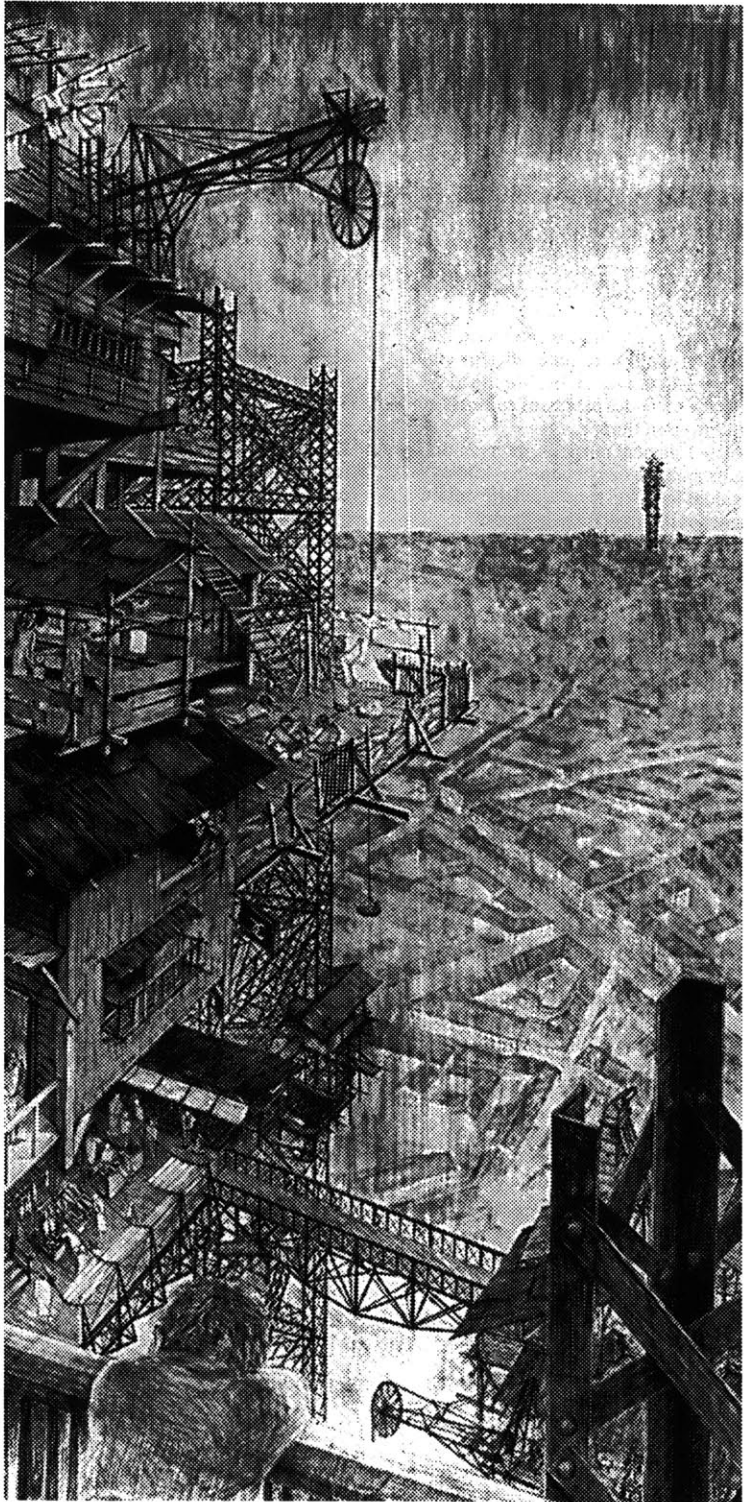
Riken Yamamoto and Field Shop, Seuil, Schwelle
from: Feireiss, Paris, Architecture et utopie

Play

Yamamoto's rendering for Paris-Architecture et utopie, projets d'urbanisme pour l'entree dans le 21eme siecle, could be seen as such a sense-finding environment. Sitting high above Paris the humans enjoy a high tech construction and contemplate in play. They are detached from earth-bound evils, from local authorities, which deprives them at the same time off any excuse to get distracted, to develop business, but forces them to define what they are doing and thinking consciously, to define order and rules continously, to communicate and appreciate respectfully, since the colleagues up there are the only thing that gives stability.

This is a somehow archetypal community, one that on the one side 'returned' to a root of life, holds chicken (and enjoys watching their relaxing stupidity), but on the other hand lives in a high tech artifact and therefore in a world that has accumulated all this knowledge and experience – it is nostalgic, in the sense as the direct translation of the word says: desire for a home. This is the strange character of what might emerge. What makes it so exciting is that one can sense that all the sophistications of the modern world are waiting, and are further sophisticated: the best perfumes might wait in the shabby wardrobe, and in one of the rotten shacks on the platform might sit a naked guy in front of a laptop, re-assembling his emotions and communicating them to the world. A somehow complete life can be imagined here, both in the middle of an urban environment and with the archetypal notion of farming and caring for one's life entirely. The irony of Kurt Tucholsky in saying: Das haettste gerne: vorne den Kuhdamm und hinten die Ostsee' (this is what you would like to have: at the front door the Kuhdamm in Berlin, and at the back door the Baltic Sea) is here just abstracted from its literal and local sense: all the worlds are assembled in one here: this is the understanding of Flusser's introductory statement: *We have to call this emerging society utopian. It will be at no location and in no time, but in imagined planes that blur geography and history.'* What was completely ironic in Tucholsky, an attack on a mundane class, rich and never satisfied and with stupid and 'un-cultivated' dreams, gets into reach now – but most probably with the same 'un-cultivation', 'The new Rich', accompanying the true potential of sense-seeking. .

The New Rich
from: New York Times Magazine

27

Third place

The places of the sense-finders are everything but neutral. They are as specific and as well adjusted to personal forms of cultural expression as ever possible, and they are as much as possible attached to a possibility of mutual exchange with the human colleagues: An institute.

Between these places is what once was called public realm, the public redefined in a time of dialogical communication. The public does not any more have to enable interaction, it only may enable - and this might have been exactly the starting point from which all the famous public places took off: they were not designed for communication, and in this relaxed athmosphere communication happens. Nobody would ever expect that a medieval city puts park benches for its citizens, or cares about the psychology of interaction that is supposed to happen in its streets: The cities are built to other priorities, function, protection, or religion and ritual. As a consequence: To free the public realm from its imposed task which is to serve as the last remaining forum for interaction, (exactly at the location where all the difficulties of a mass society are most imposing) might free this space to take on some form of easiness - maybe this is what Koolhaas means with 'Lite Urbanism'. Massachusetts Avenue is a non-gentrified business street, loud and practical, but since at its borders there are some institutions that serve as 'sense-finders', everybody can be perfectly happy with the harsh character of the street. Now: Saying that not always the neighbors of a street have a sense-finding institution right at hand can have two consequences: The first one might be the demand to give them something, some third place in the public (Ray Oldenburg) to serve as sense-finder, or, and this seems to be more convincing, to re-design the environment behind the street facade in a way that enables everybody to re-define life continously; A never ending process of mutual re-definition.

Then the public is a relaxed non-specified realm (in contrast to the hyper-specificity of the sense-finding places), where everybody moves around, and seeks for pleasure and forgetting, and buys with excitement useless things with a shiver of rememberance of awkward times when this was still the only sense of life, when the choice between shirts and shampoos (an incredible ridiculous choice facing the infinite number of interesting combinations of bits today) was still the only choice, and where everybody seeks for a bit of material to be connected in a crazy way to another one. Some people like to perform their re-combinations on this street, some think others might be interested to buy a re-assembly of bits, and between them, not many, the part of the population who has no interest in sense of life makes business.

The facades of adjacent sense-finding places display every day the moods of the finders, with the stubborn elevations of mono-functional apartments of money-accumulators in between, who watch their neighbors with a blend of getting used to them and increasing fascination. The passer-byers can every day and at various places watch people seeking for the ideal proportions or the newest combinations of building materials, or seeking for the deep understanding of the underlying form of the ingenious creations of past sense-seeking building-material-combiners.

From many and various openings recombinations of new tunes or deeper understanding of old combinations can be heard.

Things in these streets happen almost without effort as long as all the obstacles and ugliness that occurs is clearly a new combination of bits and not an outdated attempt to prescribe happiness. From an *'utilitarian polemic'* (Koolhaas), Manhattan changes then into a polemic of sense-finding.

No task is imposed on these places other then to serve the daily support with goods for the sense-finding communities and, in particular, to make their places visible as much as possible and by as many people as possible.

The life in the street is very relaxed and un-intense, and colorful and fearless. In 'forth places', everyone has multible dialogical connections within institutes and networks, and has so many possibilities to display her or himself that the street can be the place where everybody accidentally but proudly displays the new combinations, but it does not any more have to be the only and tense stage, where the one possibility for humans to get in contact with each other has to be set in scene. The sense-seeking places are so exciting and various that the street does not any more have to be the only 'nice' place where people in utilitarian times could at least a large number of different faces and could admire a 'variety' of carefully designed attractions (economical since used by many, but drastically decreasing over time), in escape of their normal environment of being-apart and specialized and mono-functional.

In some parts of the world, where stupid money-earners cannot understand that unconscious happiness and conscious sense of life are two opposite things, still weird misconceptions about the built environment in a post-industrial age are made. The money-earner-bosses feel that their environment does not accomodate the changing times and that their communities decay and are only present as the social problem, and that their economies have to be kept artificially alive, and their culture, leaving workers and artists only as a mass of problems, and they look back to times and settings where everything

seems to have been better. They have the idealism to make this life better for everyone, so they start with the realm that influences, and that is used by, everyone: the public realm. They push loud streets into tunnels, they plant trees in the former cores of their industrial lives. They build Disney Lands and Chelsea Piers health clubs with people running on negative conveyor belts, they propagate holidays as content of life. But with all of this they just increase the amount of consumption infinitely, and they wonder then why people just leave the community behind them and move away as soon as they somehow can afford it, and dive away in hidden insanity and loneliness.

Money

10 years ago a report of the German conservative(!) party stated, that the replacement of the entire system of social support with a base monthly income for every citizen of around 600$ would be 'less expensive'. This money would be taxes on non-personal revenue, basically a distant form of machine-tax. The income would grant a decent life for everyone at this time, and would leave it up to the single individual to increase it if actually needed. Work was recognized as a non-necessary act, revenue as something that is made without the necessary input of human contribution. Since un-employment already back then, but more so today, was a problem less in terms of survival for the victims but more in terms of 'sense of life' the measures were never implemented, but in opposite large programs for the creation of work were installed. Most probably and in the next recession after the re-unification boom, these reports will re-appear. At some point there might be no excuse left to face the revolutionary changes for a society with the acknowledgement that work in its traditional form is only present as a problem, and that its prolongation makes it more and more an evil: Continous useless exploration of natural forces without even the effect to make people satisfied any more.

Workers after the war, Long Island Shipyards,
from: Hayden, Power of Place, ...

Disperse

The technical images are in the center of society. But for the reason that they are penetrant people do not gather around them, but they hide, everyone in her or his corner. The technical images are broadcasted, and at the end of each beam sits a receiver, lonely and pushed into the corner. In this way the technical images disperse the society to bits. Each technical image is received as the endpoint of a beam, as a terminal. Thus society does not form an amorph pile of sand, but the bits are distributed according to the beams that radiate from the senders. ... The media form bundles that are broadcasted from senders. The Latin word for bundles is 'fasces'. The structure of the society that is dominated by technical images is fascist not through somehow ideological but through technical reasons.

... The previous groups of interaction in society disperse through this structure... .Family, nation, class become bits. [Critics] talk about the decay of society instead about the new society. They criticize the dispersing structures instead of criticizing the new ones. ...

... When the family disperses, basic values are lost. From there it seems as if the constructive criticism of the dispersing family (for instance the proposal of alternative models such as Kibbutz or Cooperative) is a valid enterprise. But in fact every attempt to save the family of the breakthrough of TV or computer terminal is a lost, a 'reactionary', enterprise.

...

In the relation between the receiver of a newspaper, the newspaper, and the sender of a newspaper no 'big value' is recognizable. Who ... criticizes the new form of society seems to talk about minor things. In fact it is those new forms which require our focused criticism. They are about to delete the old sacred forms and they make new relations sacred and establish new values. Only when we recognize the emerging fascist forms early enough ... we may hope that the present revolution of the technical images against the structure of society creates a society according to the human specificity.

...

...

The dispersal of the traditional groups of society through the technical images (for instance family through the TV set, or nation through satellite) looks from a view from the past like decadence. ... The young Californians who sit isolated in front of the computer terminals ... do not a have a social consciousness. They do not belong to a family and they do not identify themselves with nation or class. In looking at this dispersal from a non-ideological but more phenomenological standpoint, one will recognize the emergence of a new social tissue ... , of in a way socialized humans that we have to be afraid that they loose their individuality despite their apparent isolation. The isolating dispersal is the result of their being forcen into line.

The present wiring diagram of the technical images supports these fears. ... But there are beginnings for wires leading in another direction. Across the bundles that connect image and human being with each other, and from one human to the other; beginnings of 'dialogical' wires which cross the 'discursive' bundles of the media. ... Dialogical wires ... can connect the fascist bundle tissue of the emerging society into a network ... that we might call 'democratic'. ... This would facilitate that in future humans could be in a dialogue.

.... The revolutionary reconfiguration of the present wiring diagram into a dialogical, democratic, must have as a base a common consensus. ...

But this consensus does not exist. On the contrary: Presently there is a consensus between the images, and their senders ... and the recipients. ... People want to get made their minds dispersed to be not any more obliged ... to concentrate and to assemble. ... In the old days, when the society was organized according to human relationships, there was an 'outgroup' and an 'ingroup'. ... Hegel called this the 'unhappy consciousness': If I go out in the world I get lost in it, and do I go into myself to concentrate, I loose the world. In the dispersed world there is no 'inside' nor 'outside'. The unhappy consciousness quiets down here. The consensus between image and human relies on the unwillingness of the human to concentrate and on the intent of the images to disperse peoples' minds.

But the unhappy consciousness is the only form of consciousness at all, since happiness is unconscious. People want their minds to be dispersed to become unconscious, happy. ... We are on our way to the happy society, paradise is around the corner. ... It is happiness which both intellectually and morally and esthetically is on the niveau of the baby cradle. ...

The present revolutionaries ... want to awake the dozing consciousness, since they think that the happiness of an earth worm that the images provide for people violates the dignity of humanity. ... The ... revolutionaries want to reach something that nobody wants except themselves. They are engaged against the common consensus between images and humans. ... They are not engaged against the images. ...

... They manipulate the images to make people realize that the images can be transformed to catapults into un-known human relationships. ... They do not want to change the base of the so called 'information-society', but its surface.

...

Seeking for a sense of life is only possible in the closest most contact with the colleagues who share the same specificity.

From there, dispersal must be the worst enemy for the search for the sense of life.

There are different dispersals thinkable: The literal one, which is spreading out, until out of reach and sight for interrelation; Or: building up im-penetrable walls, that replace the distance of dispersal with their im-permeability.

The dispersal on which Flusser elaborates is the mental dispersal, un-concentration, that does not allow to focus on the task (of sense-seeking). An additional one, that is related to mental dispersal, is busi-ness that covers the need for sense-seeking temporarily (or even continuously). In a wider sense dispersal can also mean equal distribution and entropy, that work by 'virtue' of their 'entropical death' against any form of contrast for sense-information; in its physical form this is the equal distribution without tension and contrast, without edges.

The city for the sense-seekers then redefines the walls, the edges, the distance and the contrast.

Calvino's invisible cities, assembled to Venice, are each one of them an extreme. Each one of them has one mode of assembly, random, but clearly defined and coherent in itself, informative to a maximum through the highest possible contrast. Each one facilitates through its 'built' structure one mode of expression and behavior of its inhabitants, that one can imagine then to be executed until its peak, a point of change between the extreme perfection of the one and the deep depression at the end that is inherit in the peak and the need for a new beginning.

'A hundred profound solitudes together constitute the city of Venice. That is its charme. A model for men in the future.' (Friedrich Nietzsche, in Koolhaas, D.N.Y., p.120).

A profound solitude is one with a conscious edge. The edge as imposed duty, as a 'common' wall or fire wall with the function of creating the most perfect separation and isolation, does not create profound solitude. Profound solitude is the one of a hermite who dwells high up in the mountains, his or her hut glued to the rocks on the tiniest platform, close to God, overlooking the world that has to be reflected in the solitude, but above all: visited by pilgrims, who stand with open mouths below the hut, at the point where the hermit up and then pushes down a long and instable ladder to seek for salt, and to gather his or her sheep; The profound solitude is one that is visible, reasoned, conscious, and communicating its being and meaning to the outside world.
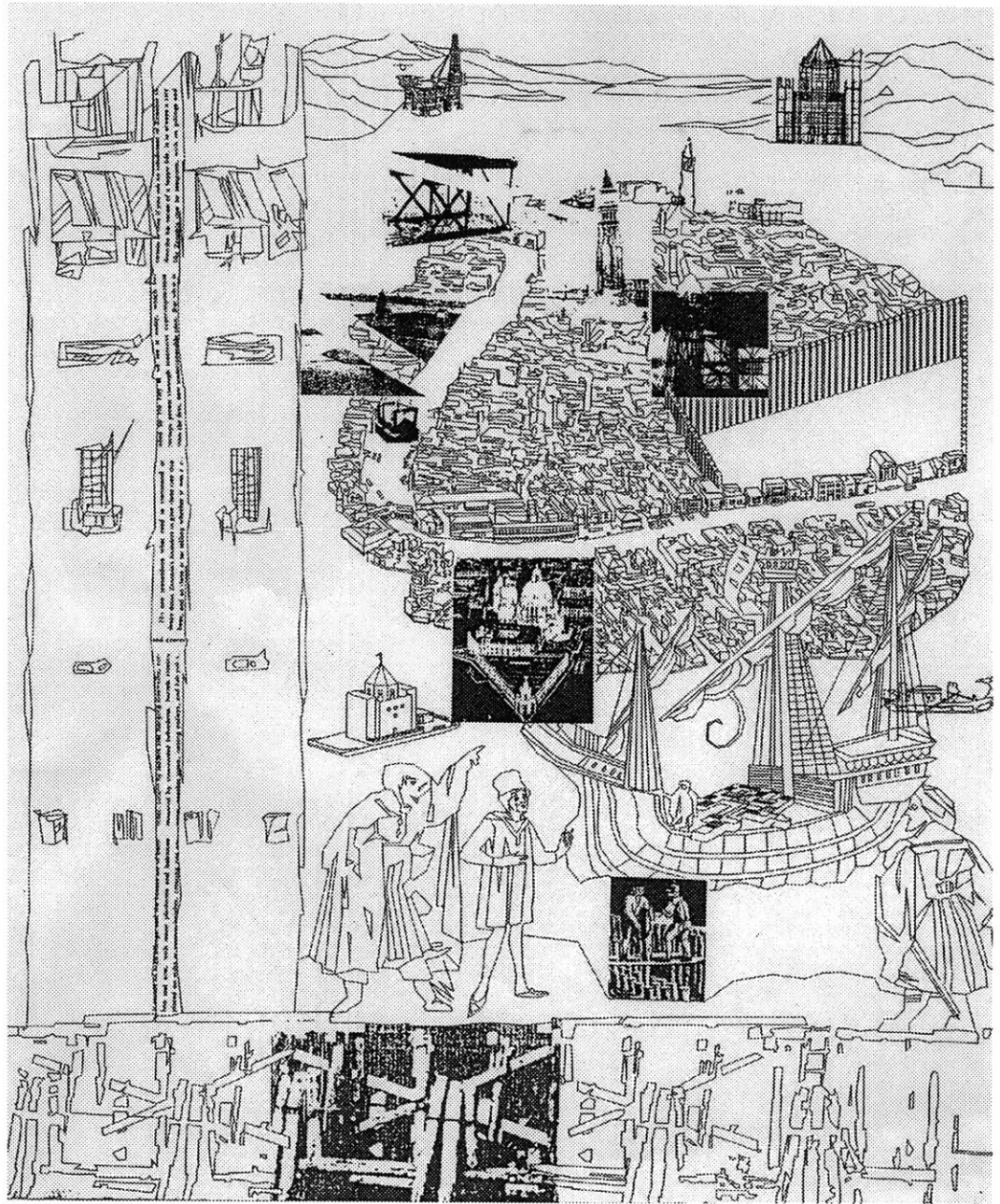
Venice under construction again

Seeking sense has – as the earlier reference to the bible wanted to indicate – a background that seems to have continuity through all times of existence of the 'human specificity'.

It is in particular religion that has as the clear and distinct reason for its being the search for the underlying form, the sense of life. Religion unifies believers into a common realm to enable them to interact; the emphasis on the brother and the next in Christianity is therefore the 'selfish' acknowledgment that the next, his or her suffering, pleasure, excitement, astonishment, hate, distance, in general the reaction and appreciation of the next is the sense of life. The only measure for the human performance on earth are the human colleagues. God is the complex notion of what the expected reactions of the colleagues are, an 'institution' to diminish accidental aberrations, or to avoid moments of loneliness, both of which can be a danger for the search.

The whole world of meanings, signs and magic, in the universe of the traditional images, the system of monetary appreciation in the universe of texts, and the internet in the universe of technical images, are more or less sophisticated attempts to fake the direct appreciation of the God-colleagues. In all three cases the method is one of inventing a mechanism between the points of interaction from colleague to colleague that allows for delay and distance, mediators. These mediators are incomplete by definition. They are not persons with all layers of interaction and reaction (what finally makes culture and the sense of life). They are relying on systems of common code, and they are compromises to serve anonymous and many individuals.
This is not different for the internet. It is not possible to interact as a person, but only as a sum of specified capabilities, that are supported by a certain amount of technology, and that have to pass layers of filters and agents, good or evil ones.

One might therefore be suspicious if the dream of a technical wiring diagram is ever thinkable that enables the culture that it promises, and that is a able to set up a true information universe. It is exactly the information that is not authentic in this universe. The blueprint is clear though: money as means of appreciation, as contact to the human colleagues, is not complex enough for a 'complex world', a post-post industrial universe of complex interrelations and interdependencies is looking for the appropriate way how it informs itself.

On the other hand, and in physical terms, the small reference group that might have been sufficient for the mutual sense-giving in 'less complex' times has to be larger today.

Fresco by Giotto,
from: Calvino, Invisible Cities
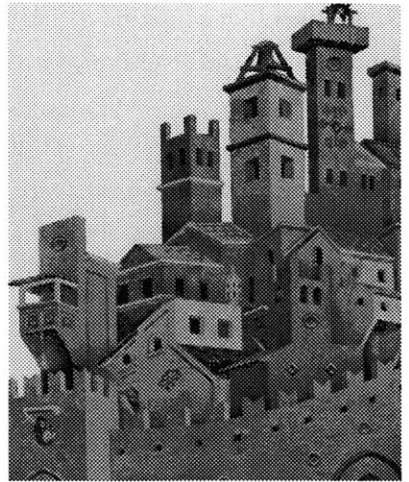
The Founding of Oxford University,
from: Turner, Campus, ...
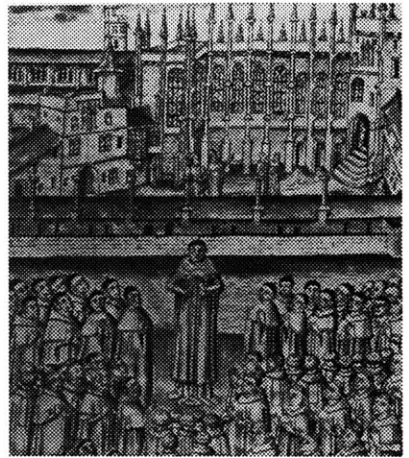
Mount Athos, Agios Pavluos, Passage from
refectory to church

Maybe this is the difficult formula of physical place, transitional quality, and electronic communication: To not rely on mediators for the cooperative enterprise of sense-seeking, but at the same time to have the necessary 'resources' for a universe that has to draw the major part of its sense from culture (since more concrete senses or businesses become increasingly obsolete).

The well-known institutions of sense-seeking such as monasteries or universities are in general systems that combine the personal relation with the accumulation of resources (in all variations) and a system of transitionality, a transitionality that one might almost call network (in form of the congregations and scholastic exchange and the academic intercourse).

In particular the American University Campus is such a system that encompasses as many as possible aspects of the life of students, faculty, but also of the outside world. *'The romantic notion of a college in nature, removed from the corrupting forces of the city, became an American ideal. But in the process, the college had to become even more fully a kind of miniature city. And its design became an experiment in urbanism.' (Turner, Campus, p.4).*

The interesting anticipation that is inherent in Flusser's text is thereby that he sees the world turn into one large sense-seeking enterprise, and the question is what has to be added to the models of academic and religious sense-seeking to be able to serve as a holistic entire culture.

To argue from the negative side: family, class, nation, already disperse, according to Flusser, with the emerging universe. The building types that we know for the accommodation of these pre-determined sense-seeking institutions are then subject to change: The family house, the work place, the public space. Flusser already introduced the serious doubt if there is at all a private and a public, a discourse, possible through the particular character of broadcasting of images. The private in the Hegelian sense as the place for concentration is in this sense replaced with the consumers home that is penetrated by the evil forces of 'fascist' broadcasting structures. The home has taken on the public functions of being the place for 'mental dispersal' as well, through a pact between the senders and the receivers of broadcasting, that is based on an outdated and blasphemic concept of what the 'practical' form of paradise for humans has to be: Hegelian unconscious happiness.

The lonely TV consumer who is forced into the corner of the living room seems to be the subject that has to move out of there, to come to physical relation and interaction with the colleagues, the transitional quality of the sense-seeking institution. This is the mundane notion of the world as a home: The world is known, and all its physical and

human resources are necessary as base material for re-assembly of sense.
Accepting this, the family house has to re-find its quality of a place for concentration and contemplation and as the base for the ability to interact (the public). And the work place has to move from the goal-focus to the process-focus.

In a Xerox study about the 'workplace of the future' the clear emphasis in the view of the users was on the interface with the 'outside' world. Not the physical furnishing of any kind of office was discussed but the discussion in front of the screen, the problem of quickly changing affiliations with task forces, the necessity to interact with different groups in different degrees of closeness, relation, depth, ways and cross connections, the level of this interaction and the necessity to be able to control it, and finally the problem to keep everybody in the right way continuously updated for the possibility of mutual influence. The emphasis is on the edge, the re-definition of the wall. The traditional patterns of assemblies, that made the workplace, are dispersed, into the 'City of Bits' (Mitchell). The accommodation of the best possible interaction seems to be the mode in which the bits are re-formed into a place.

Flusser's observation that the public got obsolete with the mass-distribution of penetrant technical images directly into the home, what he calls mass-culture, leaving the public bare of its original interactive function (that accomplishes the privacy of the home), is put into more drastic words by Koolhaas: '*A perverse automatic pilot constantly outwits all attempts at capturing the city, exhausts all ambitions o its definition, ridicules the most passionate assertions of its present failure and future impossibility ...A chain of rearguard, escapist actions and positions postpones the final moment of reckoning for the two professions formerly most implicated in making cities - architecture and urbanism. ... As the concept of city is distorted and stretched beyond precedent, each insistence on its primordial condition - in terms of images, rules, fabrication - irrevocably leads via nostalgia to irrelevance. For urbanists, the belated rediscovery of the virtues of the classical city at the moment of their definitive impossibility may have been the point of no return, fatal moment of disconnection, disqualification. They are now specialists in phantom pain: doctors discussing the medical intricacies of an amputated limb. ... The seeming failure of the urban offers an exceptional opportunity, a pretext for Nietzschean frivolity. We have to imagine 1001 other concepts of the city ... In a landscape of increasing expediency and impermanence, urbanism no longer is or has to be the most solemn of our decisions; urbanism can lighten up ... Lite Urbanism. (Koolhaas, S,M,L,XL, p. 961-971).*'

The in-vain attempt of the heavy urbanists is to create in the realm between the receiver-locations and between the senders and receivers a public, but without a 'function' left

that could fill it: it must remain a hollow image, and it must be a continuos disappoint-ment, covering and sanctifying with its beauty and sophisticated design nothing else then this evil character of the 'dependent-consumer-home and sender relation'.

Koolhaas's starting point thereby is what he calls the 'loss of the battle with the issue of quantity'. The public in this argumentation has become too large to, back to Flusser's words, function as a 'discursive element'. The other side is that the particular discursive character of the public has made place for one that is dialogical, in this respect relatively determined, and not to be facilitated by the public; a dialogue might be something that takes a different place then the discourse, might happen more accidentally, or extremely scheduled, is by nature rather defined, a direct and non-mediated relation.
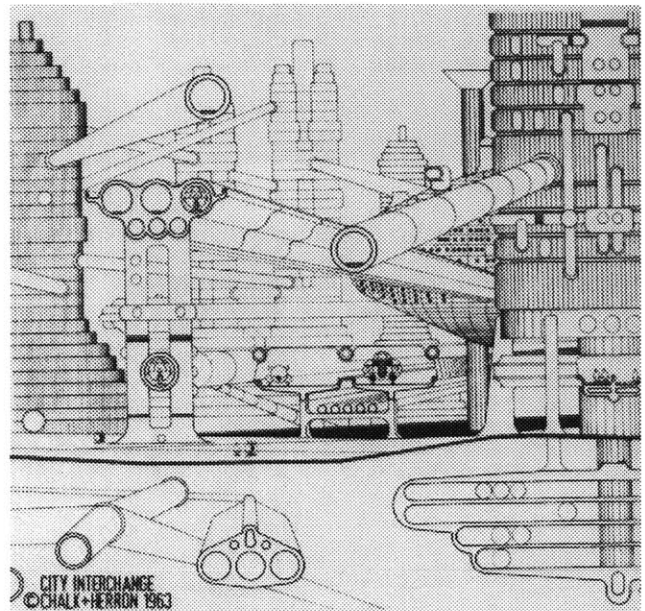
Squatter

Roy Strickland reported of a Harlem High school in which the focus of its function and the requirements of its built structure shift away from notions of school. Being the only quiet place in the neighborhood and the only one where kids (and parents) can relax or focus on an activity, replaces the focus on the teaching of knowledge; place-making as infrastructure, not service. The spatial requirements tend more towards multiple and small rooms for diverse uses, from relaxing and quiet reading to workshops to fix stolen cars, and finally to spaces for transitional residence for entire remainders of families.

Revision House is a non-profit transitional home for young mothers and their children in
Dorchester. The home has recently built a greenhouse and has started an aqua culture project.
...Future plans call for an enlarged, commercial size greenhouse and fish-farming venture, as well as
job training and science education for young women and elementary school children.
(from an email calling for volunteer students, 2/16/96)

Back to the trap of abstraction: That things are dynamic, transitional and flexible, is com-monly seen, when technical devices make them moveable or when openness of the sys-tem provides for change. But yet: the new state is then a goal in itself, and the change that is reached un-informative. The system becomes dynamic quality only if it is contin-uously in a state of re-definition, opens up not only nice effects but changes the percep-tion of the environment every time so drastically that a new process of understanding has to start. A quite complicated enterprise for built environment. A simpler approach for

City Interchange, Chalk + Herron
from: Klotz, Vision der Moderne ...

Wohlgroth Areal, Zurich
from: Wohlgroth ...

now might be: the character of the above mentioned two institutions, but also of the monastery and the University Campus, and more so the squatter, is that they remove themselves from classification. This would be the literal translation of utopia as non-place, and one that goes alongside with Flusser's description of the virtual world as the non-place.

Missing better examples, two squatter areas in Zurich, Wohlgroth and Red Factory, and one in Copenhagen, Christiania, might serve as sense-seeking institutions. There are for sure parts of other examples existing: Where the activities are not focused on the explanation of the rules of nature nor bound to utilitarian purposes, but just on the delivery of surprising combinations, images and conclusions, and thus being informative. But none seems to be as detached from a 'legal' and civilized world as the squatter areas.

Both cities, but in particular Zurich, represent a 'final' state. Industries have left the cities, the the economy is largely one that exports sophisticated services; The cities are rich, statistically without any material or social problems, housing stock is new or recently renovated, and 'clean'; Perfect infrastructures. It seems from a 'quantitative' standpoint out strange and un-justified that in these locations squatter areas could occur.
But parallel other strange things occur: Zurich is also called a city of students; everybody is frequenting some form of school, they never seem to want to reach the awful goal of being completed.

Squatter areas must be institutions for sense-seeking.
It is not convenience nor comfort which is their reason-for-being. It would be much 'cheaper' for the squatters to spend the energy necessary for fighting, discussing, renovating, and sitting in prison for regular work and then to rent a normal apartment.
Squatter areas attract attention that is dis-proportional to their quantitative importance; In Copenhagen they polarized the city to a degree that in a poll half of the Copenhageners voted for the continuation of the experiment, although it deprived them from the 'free access' to one of the most beautiful stretches of the old city wall and surrounding river. In Zurich the decisions pro or contra the demolition of the Red Factory decided over the political future of some city governments. One is tempted to say that the issue of an area that violates the usual form of living, even when its illegality has ended, is concern or more probably dream for a wider public.

The three squatter areas, that stand as examples for many others here, occurred in areas with old industrial buildings: part of the need for a zone where the above mentioned

'culture' can be built. The large and robust halls, where no respect is necessary, are the place to re-assemble. On all the images is trash: a trash culture as a literal sign of re-assembly of existing things, of the remainders of the material and utilitarian society.

The squatter areas are in inner city areas. The argument from the squatters of the Wohlgroth Area in Zurich on the proposal to move into another empty industrial complex outside of the city was, that then the most important point of the action would be gone: the interaction, the confrontation, with as many people as possible.
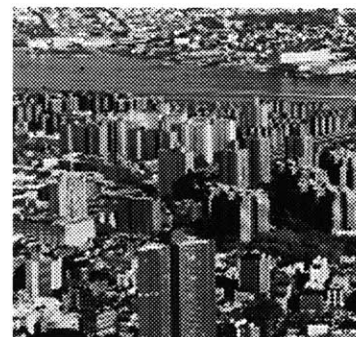
This 'interaction' at all three places is almost a problem: The Red Factory turned into a huge cultural center with ateliers, performance halls, workshops, theaters, kindergartens, recital facilities, classrooms etc.; Christiania into a major tourist attraction; Wohlgroth's inner courtyard, besides 'usual' things as movie theater and such, into a 'public place' where around the year people would 'just meet'.

The attempt to form a coherent whole and not be weakened by interruptions (of the exchange of informative situations) has its expression most explicitly in the bridges that the inhabitants at Wohlgroth built above ground between the houses of different blocks. In both other examples the attempts of the 'public' to get through ways along the water-side for public recreation were a reason for veritable wars.

The 'manifesto', written after the destruction of the Wohlgroth area by the city of Zurich, might sound naive; Whilst reading it, one should always imagine how parallel possible manifestos today for living in a single family house in suburbia, or even in an apartment in Manhattan, would sound: *'The paintings at the facades, the colorful demonstrations, our un-conventional actions in the city, the visible of our culture, has been consumed by the media and therefore by the public as an exotic spectacle, has been swallowed like a long drink in a dimly-lit bar with south-American music. ... Our demand for autonomous culture is not only the demand for concerts and beer. The point is that we want self organized structures, common living space, where we can live a holistic and idiosyncratic life with each other. Out demand for an own identity. ... Is critique imaginable that does not try to judge? Critique of interest, which helps an idea or a work to come into being?. ... This critique would be interest by itself, would be part of the idea and of the work. It would be charged with the flashed of all thunderstorms of thinking. To prevent our form of living is to prevent ourselves.*

New York City, Stuyvesant Town

... The parallel occurring of different structures, cultures, forms instead of the equalization of all those who let themselves make equal and the extinction of all those who are different. We will not behave civilized ... '

The universe of images, the church, the university campus and the squatter share ill-definition in terms of usefulness. Their main quality and intent seems to be to re-define the profane and civilized world. The universe of images is as well completely useless in material terms.

As above mentioned a 'simple' feature of the institutions of the universe of the technical images is that they by definition are not to be classified. The inhabitants are ill-defined, the professions, the forms of existence and economy, the forms of artifacts in which it occurs, the form of society, the form of rules, the form of culture , the form of interaction with the outside world. This might be the difference between neutrality (as Oldenburg postulates it for the third place to become a platform for interaction) and openness. Neutrality retreats from the statement to the compromise, it is an entropic operation. The neutral situation is without information. A linear thinking always strives for a solution, an attractor, and will therefore always arrive at compromise. Compromise is the only solution. This happens with nations that are submerged into large organizations; If the same law has to be valid for the Scandinavian fisherman and the Portuguese orange farmer it is clear that this law can only be the smallest possible compromise, and that its only goal can be to make those two individuals as equal as possible. The name for a distinct 'neutrality' might be openness: everything can be defined to a maximum, which triggers a most informative interaction.

One should be aware of the underlying form of the recent death of the political system that strived for the extreme equality, neutrality, of its members. The bases of this system were the critique on in-equality, a notion that a change in the economic conditions would change the condition of society, and the belief that the world has to be saved. With Real-Socialism an incarnation of entropy, of linear thinking, of the industrial age, and of heavy idealism died – this death could be seen as a strong blueprint.

Squatters are a built form of dynamic systems. That they are conceived as chaotic is a clear blueprint, and all the attempts (worldwide) to get rid of clandestines, barrios, and urban squatters are mainly the mis-conception of democracy as the most un-informed state of a society, the compromise and smallest common divisor, instead of it being the element that enables the widest variety.

Squatters take on 'public' functions.
A funny comparison might be between a Club Mediterannee and a squatter area. The Club is a community, people live together, it has forbidden money within its confines, lots of cultural activities are going on, and people display themselves. There are very

loud and party places, but also the possibility to retreat completely in a hut. The big difference is that all activities are within a system of animation, a nasty form of consuming that provides activity and culture, and the freedom from daily evils and money as a service product. The desire to step outside of the universe of texts is available for money of the same universe. What one wants to imagine is that at some point the guests decide to get rid of the animators and the management and take over the place and start to delight each other through their existing or acquired skills and ideas. They start to defend their place against an outside with argument and cleverness, and start to inform the world about what they are doing, and communicate with the world for comments and support.

Pier 40, Manhattan, aerial view

Pier 40

The new Pier 40 has five parts: The existing parking and storage decks, the flat planes;
A large elliptic volume on top of it, the refined gem;
North of the pier in the water a farm of small towers, the lonely towers, connected with small bridges amongst each other and to tower tripods in a row, the dense tubes;
And a bridge that connects the larger towers with each other and the pier and the elliptic volume, the big connector.

These five parts form together a whole; They have to cover all the necessary forms of exposition, display and blossoming of the individual, and a the same time, truly parallel, the immediate communication with the human colleagues, their appreciation, their comments, their pleasure and challenge, their motivation – and vice versa: This is the universe of sense-seeking.

Instead of investing in a further enterprise of on-way exploration of resources the Big Oil Company had the feeling that the time is mature to think about what might be the impact on their business of this omni-present universe of technical images. They decided to not build the new pipeline. It was surprising for them that the proposal to use the thousands of miles of steel tubes that they had already produced as nuclei for human environment would even make part of the necessity to explore petrol obsolete, and would force the competitors into bankrupt: the nuclei focused activities to a degree of quality of life that made the previous quantitative waste disappear. In addition the compnay had to learn that some of their most valuable employees were amongst the inhabitants, and that it was them who came up since then with the most ingenious solutions.

The place proposed for this enterprise should be Manhattan, from which the grid, maybe the symbol of the aspects of dispersal, distance, subdivision, non-focusing and infinity, equalization until a form of entropical death, started and spread out.

The choice for a place at the waterfront was twofold: on the one side it was the only place that was clearly not subordinated under the rules of this grid, but on the other hand it was the water front that made most obvious clear that the 'sense of life' has shifted: there is not any more the harbor activity with all its aspects creating the old world that dominated this area, it was just an empty strip of land with an awful mismatch between its location and
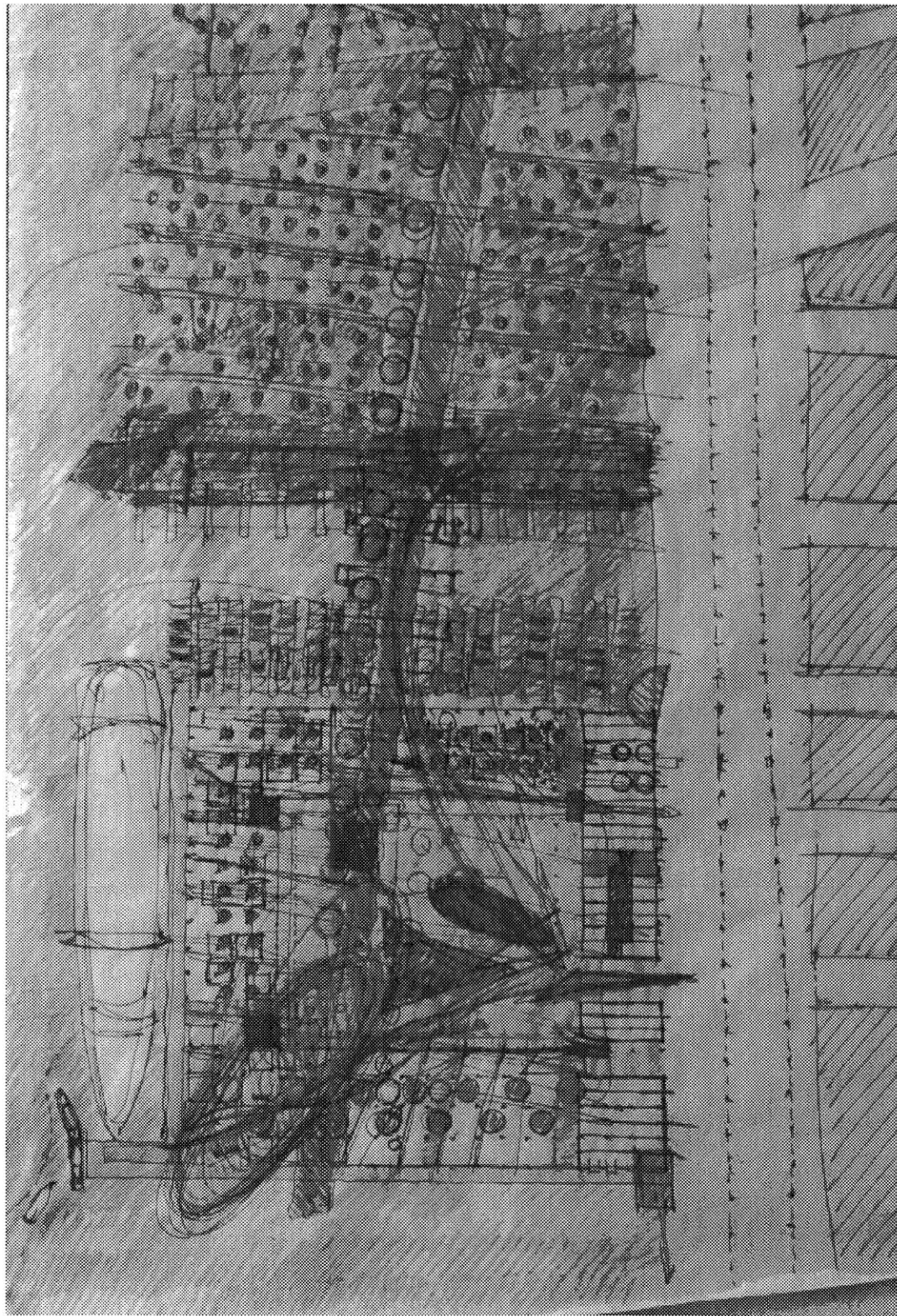
Pier 40, Manhattan,'Culture'- Institute

the bareness of any implementation of this opportunity. The institute brings the 'authenticity' of the Universe of the Technical Images, the sense seeking in the post-industrial age in a cultural environment, to the site which in some way is the icon for sense seeking through the American History: from the Pilgrim Fathers to the Queen Elizabeth II.

Since the lease for the use of Pier 40 as parking garage ended 1996 and Port Authority was desperately looking for someone who wanted to use the facility, the Institute, together with the oil company, could take over the place (the only opponent was the Hudson River Park Conservancy, a spiffy task force for gentrification of 'public' locations, with offices and showrooms at Broadway, but their proposal of a blend of various disconnected activities for recreation as part of the Hudson River Park was so badly thought out and had so few chances of implementation that the city financial comptroller had to discard their participation).

The pier was conceived after the second world war as the ideal and most efficient way to travel: Three super liners could dock at the same time and be loaded from the ground floor, whilst in the upper floors the passengers who came by car from the ideal American Suburb (hopefully with case study houses) would find easiest possible parking and could catch the next ship to Europe. The pier was finished in its present state in 1963, precisely the time, when the Boeing 707 and with it the same concept for airports finally took over the field. The Pier is a reminder on this time, where the more efficient physical connection took over the more 'sense-of-life seeking' way of travel.

Also a remainder is West Street: A wide, loud, practical, visible, 'authentic' means of traffic and infrastructure, with lots of parking in its middle, but also with the possibility to store things out there temporarily, are going to diappear; They have to be sacrificed to the desire for beauty, as long as only so few sense-seeking institutions exist; The institute on the contrary would even like have another Miller Elevated Highway: then the access to the city on the ground level would be easy, and the space below the highway could be filled up with trash, old cars, and machines, (not to talk about the particular pleasure of the view when driving on the elevated highway along the Hudson).

Hudson River 1913
from: Stern et al., New York 1900 ...
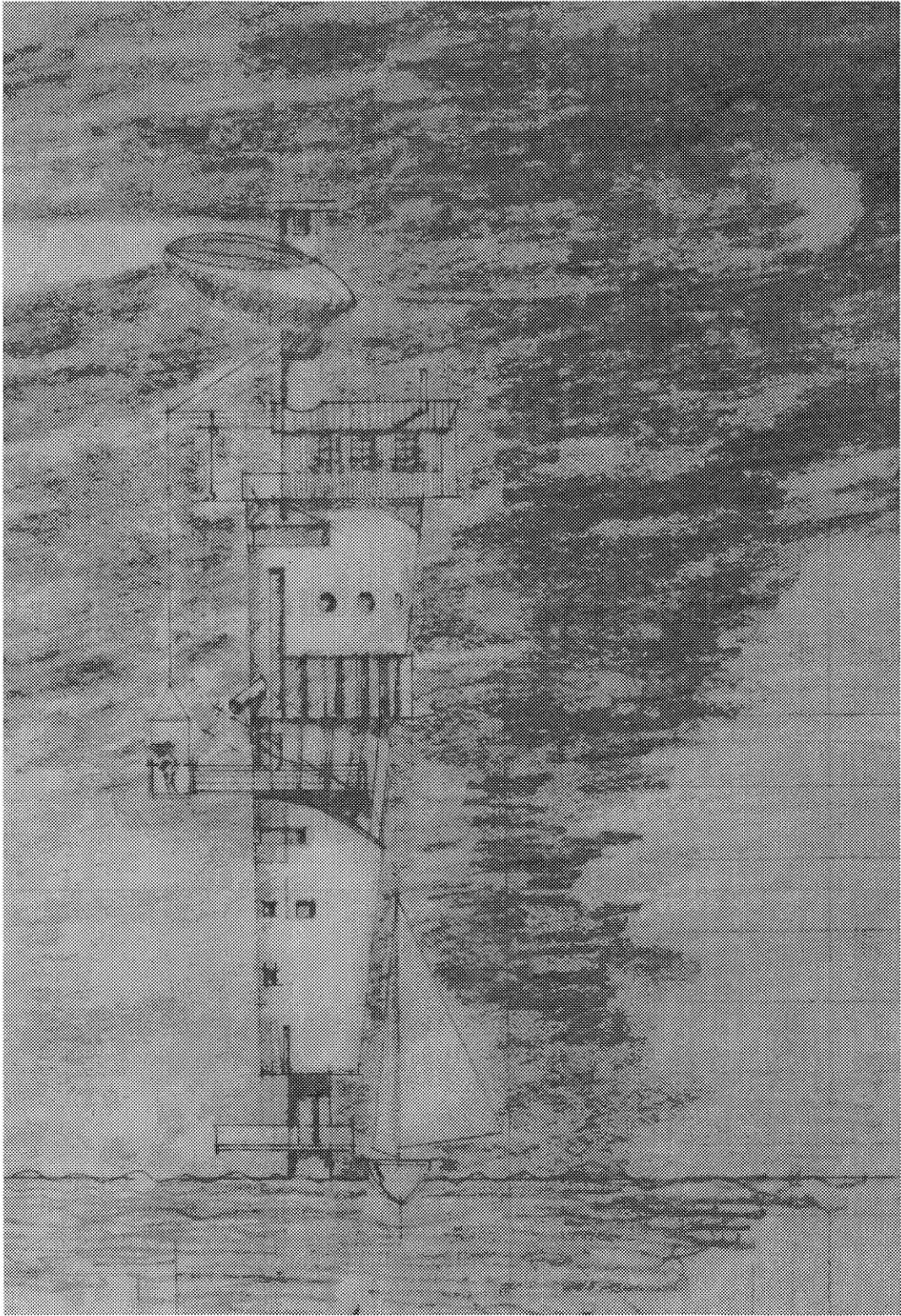
The Lonely Tower

The Lonely Towers

The small towers are the lonely elements of the institute.

They are separated between each other by water, and the only connection between them is through small bridges (or Venetian Gondolas of course). The neighbor is not necessarily the person or group that inhabits the adjacent tower, the inhabitants define their neighbors maybe through the moving of bridges, but rather through the 'direction' of their communication and the direction and variety of their preferred locations.

The lonely towers have draw bridges at their entrance that make it possible to separate them completely from land. The lonely tower can then only be reached by boat. The lonely tower is the element that can be made separate, but that is part of the institute and enclosed by its elements. The act of becoming lonely is the active one and the one that has to be executed consciously. The state of being connected is the given one and does not require effort. They oppose the notion that the basic condition is loneliness and that the act of socialization is the one that needs effort. They acknowledge that it is the duty of each human to in some way communicate in an informative way with the human colleagues; it is the mutual information that is the sense of life. The lonely towers want to oppose automated and entropical dispersion into smallest inclusive units but that are hidden in a seemingly intact social environment or neighborhood. They want to be the conscious smallest and very visible atom but within a complete molecule.

The small towers provide a low level of possible customization. The very basic version, that is delivered on special request only, would consists of the single steel support tube with a circular base plate at 15 feet above the water, and a spiral stair inside the tube, and with draw bridges that connect to one of the small bridges leading to the dense tubes and then to the big connector.

This basic version does not even fulfill the need of a inhabitable horizontal surface; the small towers are not the place in the institute that is supposed to be encroached on a very basic level; these places were supposed to be the big connector with its somehow inhabitable structure or better the flat platforms in the existing pier building, open to (violent?) insertions.

The normal basic version of the lonely towers comes with an outer shell, curved double-layered ship plywood, glued together with a layer of foam glass in between. The plywood forms a cone that gets wider with increasing height; the further removed from earth or water the more usable area. Between the cone and the support, steel cables are spanned. The wooden floor segments sit on top of the cables, and if removed create voids if desired. The same spanned steel cables serve as handrails everywhere. One can

observe at them the different directions of the wind, even when the inside of the towers is completely enclosed and shut off from the outside; The lonely inhabitant then gets up in the morning, goes around the perimeter of the tower, and checks the sound of the wires – zing, the brightest sound is the one opposite to the wind direction.

Openings are cut into the plywood; but can be easily widened. The basic version provides lighter areas on top with decreasing light intensity towards the bottom; the lowest volume of the tower, a small room with only 80 square feet usable area, is completely dark, and enclosed with a double thick layer of black asbestos cement. Sitting on the lowest steel base platform it provides the stable core for the cone. It is for the timid moods, no sound in there, and even when the hurricane blows or fire hazard goes around, the black box remains – just like the elevated sleeping rooms of the island keepers in the North Sea: even at the highest flood and when everything is under water, the sleeping room remains stable and above the floods.

The lonely towers have at least nine floors. These floors are very small, to increase their exposure towards the outside, and the overview over the outside to a maximum. The inhabitants of the lonely towers are very happy that they can do their daily work out just by running all the stairs up and down, and don't have to go to stupid health factories with negative conveyor belts. The exhaustion of running too many stairs in daily life is reduced by the fact that the entry to the towers is around the forth or fifth floor; and for a relief in running down (which is not a real workout) there is a toboggan of steel and Plexi glass around the outer skin of the towers; the toboggan serves as well as the fire escape – it ends in the regular version on the lower platform (where the boats dock) or in the version for children's' play it spits the kids directly into the clean Hudson waters.

The top of the cone is the platform. Either it is the lonely open space or encroached by the shack or the glass house for tomatoes. It is the platform, or the shacks on it, that have at the outside the blossoming flowers, the pride of the lonely inhabitants, that show their efforts furthest most into the New York villages.
The highest most enclosed volume of the lonely towers is the capsule to watch the stars; it is only used in summer nights since this is the time of the falling stars, and since it has on the one hand no heating in winter, and on the other hand it heats up too much in summer days.
The very top of the steel support (from the capsule their is only a small ladder up there) is a very tiny platform for just one stool, the lonely smoker's platform, 120 feet above the water.

All vertical infrastructure runs in the center of the spiral stair. It exits the tower at the draw bridge level. All installations are above the draw bridge.

The continuing horizontal infrastructure then goes under the small bridges and then in the large connector, forming their support and their infrastructure system at the same time: the more towers are connected, the stronger gets the infrastructure-support.

Larger or heavier things are lifted in the towers with a rope and a hook from the transport boat.

Much of the travel is done by boats to the many other institutes and colonies on the Manhattan and New York waterfront. Either the travel is done by the individual electric boat (charged with photo voltaic, of course), or with the large number of public boats that stop at every pier; The number of these boats is steadily increasing since more and more people move to the sense-seeking institutes on the edges of the city.

A special case is the tower for the lonely extremist: The tower for the lonely extremist works without any connection to the main land. In the base of its support this tower has a sewage filter and attached to the base underwater is a system that generates energy from the current of the Hudson River; photo voltaic panels on the surface of the lonely capsule provide electricity for the house's various keyboards; solar panels on the glass house serve hot water (water is taken from the Hudson, as mentioned, now really clean, and not yet salt water, just filtered a bit); gas for heating and cooking is gained with photo voltaic electrolyze from the Hudson water as well. The lonely extremist fishes for proteins, and grows soja and vegetables in the glass house on the upper platform (the lonely blossom display); chicken inhabit the lower water platform and are fed with sea grass and garbage.

Only the lonely extremist does each activity in the tower. The normal inhabitants use the towers for the part of their life cycle that is the loneliest one, the most contemplative one, and the one that needs the highest power of enclosure compared to the enclosed space, that needs to gain the highest amount of exposure to the elements, the other colleagues, and the audience. In case that there is a family amongst the users in the 21st century, they might risk to inhabit the towers; the towers though are a built expression of the dangers of claustrophobia and togetherness and serve as a built warning symbol that cannot be misunderstood: only groups whose members can inform each other will survive here.

Culture is defined as the medium through which individuals or groups express their identity. Culture is not an industry nor a subsidized public infrastructure, culture is not consumption and nothing that has to be kept artificially alive; If all these mistakes happen, something is wrong - and part of what is wrong might be the built environment that disables 'generic' culture.

The small towers have their special designation for culture. They are a place of retreat for every kind of occupation or residency, a retreat that happens actively and does not at all mean remoteness. Retreat is a transitional state. The small towers contribute to the understanding that transitional doesn't only mean people changing homes but means people changing moods and places necessarily, not for material reasons, but for inspiration. It is not any more possible to act and think appropriately with only a small screen and a small world around. In the small towers thoughts are born, but not necessarily executed, and reflection is done. The small towers house dedication, and they are a quiet place. They are the conscious Ivory Towers.

They are not supposed to enable larger social events and parties. They are not taking on the variety of tasks that is imposed on the understanding of a single family house. They are not supposed to incorporate all the events of life and social life. These events should have their right place other than in this individuals' retreat.

The lonely towers oppose a life that is conceived as one of many units of a labor-divisive world, and oppose against the preconception that the home is the place where this one unit is raised to perfection. The lonely towers want to contribute their part to the clarification of modes of interaction, and want to be maybe not the nicest, but an expressive element, one that cannot be overseen in the continuous dialogues of the sense-seekers.

John Hejduk, Towers of Canareggio
source: Rotch slide collection, MIT

The Dense Tubes

The dense tubes have a history.

Different from the immediate success of the lonely towers and the flat planes and their variety of inhabitation, already the first test dense tube was a problem. The dense tubes were planned as large circular volumes, 12 stories high, each of them with three lonely-tower supports in the core, according to the model of the tripod drilling platform. In each of the three supports is one vertical function: small elevator, open spiral stair, and second and closed fire stair. The total diameter of these planned dense tubes was supposed to be 46 feet, resulting in a net floor area of almost 1000 square feet. The institute planned to subdivide the floors into different settings, ranging from one large place organized around the tripod core to the subdivision into 6 hotel like little rooms, each with small wet-zone and small sleeping zone. The architect did a good job in creating zones that could be used for a variety of different settings.

The dense tubes were supposed to be the congested elements of the institute.

It was their example that made clear how subtle the difference is between a congestion that lives from the attraction between distinctly different elements and one that has the fact of being of congestion as a problem to be solved, to be solved with meticulous sub-division.

After completion of the first tower, already the process of inhabitation was the one of an usual rental house; people tried to close their floors off for the use of others, installed locks in the elevator, so that one could only exit at a certain floor with a key. Complaints about the vertical noise conduction of the support tubes were filed, and the tubes lost their quality as connecting elements completely. The small opening in the middle between the three tubes was point of anger and danger: after creating many problems with noise and privacy of the floors, and after being closed off in a custom manner by most of the residents, it finally had to be closed after a visit of the fire police. Also the last parts of the visible construction had to be covered with insulation, and a third stairwell outside of the building had to be commissioned since for the fire police the two ways of egress in the middle of the building were not enough.

Many of the problems had as the original cause the fact, that through the layer-cake concept of stacking floor plates on top of each other, and through the dimension of the plates, they became used in the same way in which people got used to inhabit residential

The dense tripods
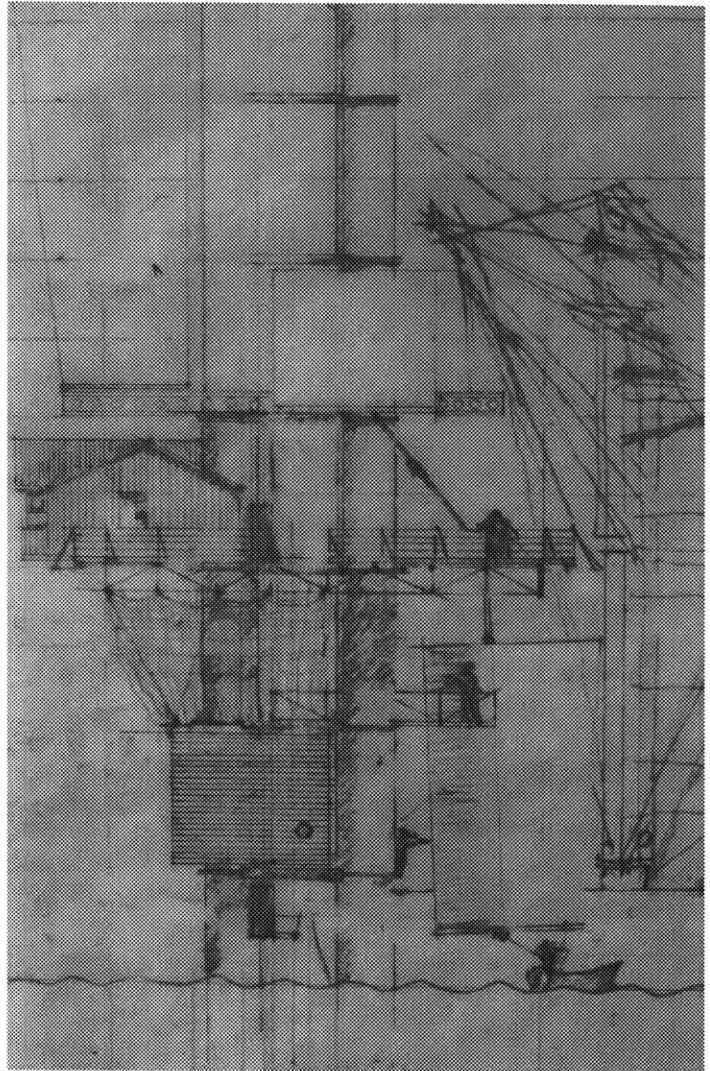
Test Tower as enclosure: Mistake
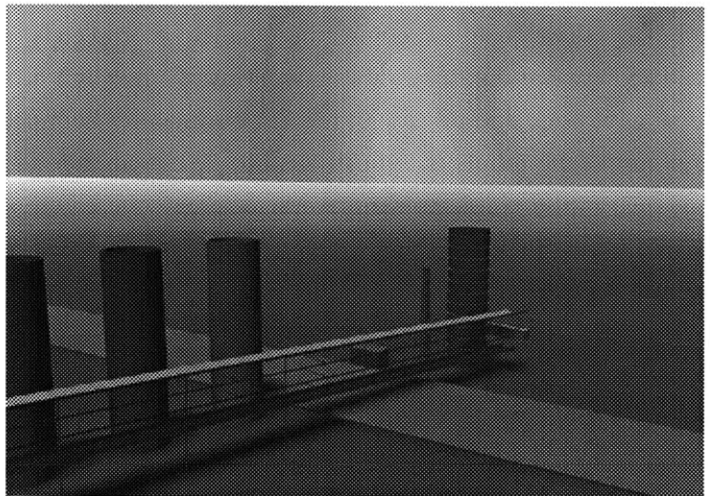
houses. People did not understand why to have their activities spread out over the institute and the city, since it was very convenient to have everything in one location. So they subdivided the floors either in apartments, good apartments since the subdivision in intelligently located and sized zones prohibited bad solutions; Or they used the floors as offices. Soon there was competition to get the uppermost floor, the most attractive one, and to get the entry floor, as the most convenient one, and the one into which business partners would find their way best. Apartment rents began to differ immediately. The original idea of having a common floor on the entry level and the level above did never work; nobody took care of the facilities, and the community was not willing to pay a resident host to maintain them. Not to talk about the idea that the lonely towers (they are connected with the small bridges to the dense tubes) could use these facilities as well, could be part of the community. Similar problems arose with the roof terrace; attempts by several people to build own structures and glass houses onto it created jealousy of others, and finally it became completely unused. Even the common workshop was only used by some people, and was finally rented out separately, since the other tenants were not willing to share the rent for the space any more.

What happened was the usual process of neutralization of the built environment in order to accommodate a compromise of use. The institute discussed many models to get around the problem and to continue to build the dense tubes in the original design. The most promising model was the one to give complete towers to small societies, groups, that organized the inhabitation as a shared volume. The institute was aware though how tough this search for a group would be, how difficult and elaborate their rules had to be to on the one side not fall into the trap of being a professionally managed mere user-community, but on the other side not to exaggerate the communal idea towards a sect. So the institute thought about alternative models, and the nature of the problem that had come up. The institute realized that most probably the mistake was to stick with the ideas for the dense tubes too much to the family model, the shared apartment model, that the mistake was to create too much a form of living that can become very un-informative soon, and has the tendency to start as a unit, and then to painfully disperse. Group is not a unit sanctified by shared use any more, but sanctified by the highest possible common degree of information.

The original intent of a compact shape had been to express that people are close to each other and adjacent. The towers should give those groups a common address. The towers were supposed to work in three ways. First they are inhabited densely themselves. Second they are the knots from which the small towers can be reached. Third they are

supporting elements of the big connector, both structurally and functionally; they are the starting points for encroachment of the connector.

Groups of around thirty people should use the tower. These 30 would subordinate consciously a part of their individuality to the necessities of a group, and get in return the amenities of mutual help and interaction and the belonging to a social entity. They could share a wider variety of differently sized and situated rooms, but they would have less contrast between enclosure and outside than in the lonely towers.

They were supposed to share an explicit place with some others as a common enterprise, but they would have less exposure as individuals than in the lonely towers.

To define a certain volume and area with an outside enclosure seems to challenge immediately the most effective use of this volume and area; Effective can mean meticulously and economically subdivided, but can also mean kept open to demonstrate generous waste of square feet.

The main 'architectural' problem with the implementation of all those ideas seemed to have been the horizontal and stacked character of the floors. This feature, plus an arrangement that reminds on a central core, and an outer shell that economically minimizes the surface compared to the inner volume, immediately triggered 'economical' behavior, and 'classical' forms of living together, or rather wanting to be separated (in the fight for life). The character of the floors is not specified enough to clearly tell about the identity of its parts, there is not enough difference between single elements to facilitate the sentence that differences attract each other. Each expression, cultural expression, of the tenants is more a disturbance there than a moment of information.

Subdivision of a given is a technical description. There seems to be a subtle difference between insertion and subdivision, independence and subdivision. Insertion is the input of a complete entity into a larger system or structure. This entity has defined edges to whatever environment. The same is valid for a independent object. In the case of subdivision the emphasis all of a sudden lies on the subdividing character of for instance a wall, making it a technical piece that has to serve a certain purpose, and not treating the units left and right as own entities.

The creation of inserts or objects puts the emphasis on the elements that connect them. The subdivision puts the emphasis on the element that divides.

Finally the economic advantages that seemed to be obvious with the stacking solution and subdivision are eaten up on the one side by additional measures to control density, but in particular eaten up in the form that the residents fall back into the dullness of convenience and dissatisfaction, and realize that the separateness of the units is the basic

condition which makes any form of contact an effort and a risk to disturb the technical balance. Escape from the stacked environment and into an informative one is still necessary.

While the Institute still licked its wounds and discussed the future of the tripods (the entire row had already been put up) some people just went ahead and encroached them. They used pieces originally intended for more lonely towers, and pieces supposed to be inserted into the flat planes, and they used the shacks for the construction bureaus, and attached these elements to the tripods. They used the temporary platforms that were set up for construction as a base on which in the simplest case shacks were erected, and they used the temporary platforms for material storage and as working plane. In this manner the supposed but not reached ideal of being a core element for the group of towers attached to it became reality, and being a permanent construction site served both as a filter towards the outside and a common place for the inside, but in particular it became clear that the almost eternal character of such a construction site could contribute to the permanence of sense-seeking. The Institute had to consider to file complaints against these activities, but when it discovered that on of the Institute architects himself was with a couple of friends amongst the first squatters they abandoned this idea and rather tried to consider the dense tubes as an experiment.

In becoming a permanent construction site the dense tubes developed at the same time another notion of public space: They started to grow, to push forward their physical boundaries, always with a bit of a guilty feeling, and awaiting angry reaction from the neighbors; but the system depended on a vice-versa relation: everyone understood the tendency to grow, maybe to connect, and to continuosly probe the outside edges and relations on their content and meaning. In a system of subdivision, that became clear, the opposite happens: growth is only possible to the inside, where it finally remains un-informative.
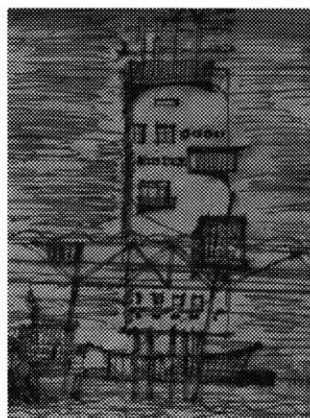
The funcitonal test-tower that made the problems
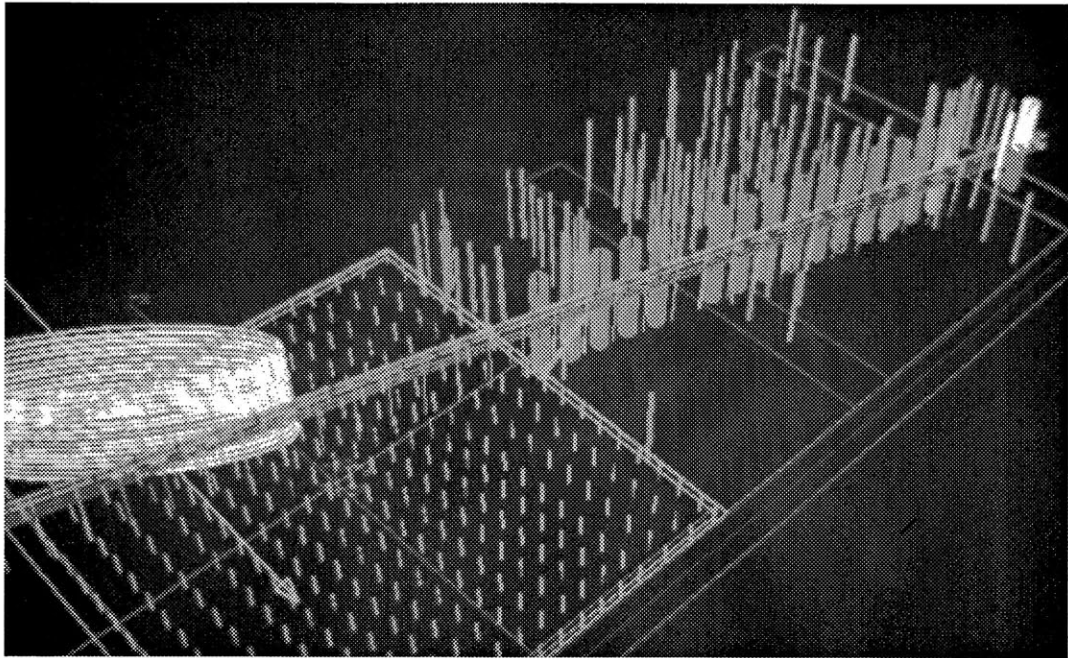
Big Connector, horizontal infrastructure and audience

Site Plan, Pier 40, Hudson River Waterfront, Manhattan

The Big Connector

The connector was supposed to serve a very important and distinct philosophy in the Institute: the expression of togetherness. A large amount of planning efforts in the early phase was invested to find out the ideal from and construction, so that the connector could be encroached by uses, could serve as the 'neutral' place where 'conversation' between 'socially equalized' (Oldenburg) humans could happen. The Connector was supposed to serve as a very tight interior connector for the entire institute.

What remained in the end was the Connector as just the most convenient physical path. The connector is an icon for the destiny of the public space: only the last function survived, making it a light piece of urbanism; just having the task to serve peoples' need for movement and to hold against gravity and evil; the Connector became a light and 'happy' place. This development of the Connector made clear what the particular character of the elements of dialogical connections is: they are everything but neutral, they are the most distinguished expressions, the most pronounced edges, to reflect exactly the persons and individuals that are behind them, and to oppose the idea of the mass, that can be measured, examined, abused, calculated, cheated. The continuous demand, that the public space has to take on the crucial part for communication (sense-seeking) does not realize that the connections and the communication between the sense-seeking colleagues have to take place in the most pronounced way to become or to remain informative. The void between the informative pieces is informed and serves as the necessary audience (apart from its plain functional task).

The Connector has four main connection points to the ground: first the vertical core at the sting of the refined capsule, second the ramp that leads up to it from the court of the flat planes, and third and forth to the piers 41 and 42; At the piers the verticals do not even touch the pier structures, to as little as possible disturb the sense-seeking that still seems to be necessary to occur there.

On the big connector is quite heavy traffic, so that it has two levels: one main level, where all the roller bladers and skateboarders take advantage of its sloping down by 2%, and where people ride their bikes (and again the motorbikes, they fit in the large freight elevator from the existing garage), and above the main level a tiny and narrow path for pedestrians, swinging in the wind, reachable with small ladders and thin elevators, having up and then even small ways up on the roof of the connector, small platforms, only for two. The only larger platform is a the south end of the connector: the place where you want to watch the sun touch down.
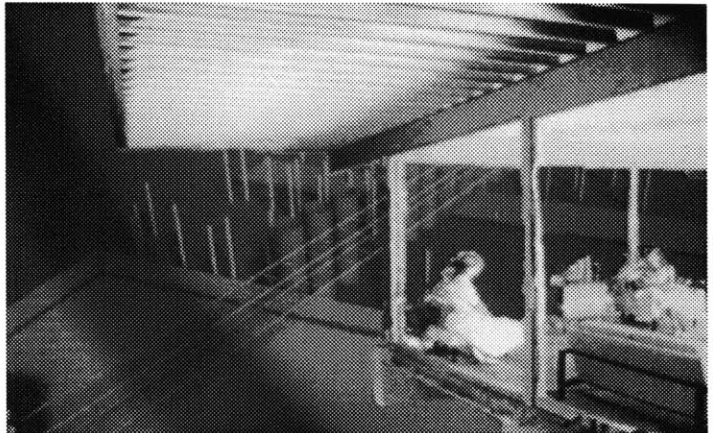
Case Studt House over The Institute
Search for the sense of life after the War and today

The Flat Planes, interior view towards north

The Flat Planes

The existing parking and storage halls of the Pier are the 'flat planes'.

The flat planes are the area for the mood of bad boys and girls. It is loud here, and large and wide, and the edges are mainly interior edges, between uses and between people, which makes the place one of a continuos struggle for re-definition, a continuos discussion and adjustment of constraints and needs.

The stable element in the flat planes are holes in them, either open for light and vertical connection, or with inserted steel pipes, leading through other uses to one floor below. Around these stable elements, the tubes, dark shacks are situated, the offices for re-assembly in an enclosed volume in the middle of this huge laboratory for culture. The dark mood is not a lonely mood here: it is the desire to be alone, un-disturbed, desperate or happy, but always to know to be in the middle of a larger whole, of many people, and always to hear them out in a distance, with the possibility to open the door and have all the disturbance and the noise of the surrounding un-filtered. And to know that even when the door is closed that there are people around who realize that, who wonder or worry, or are happy to be able to pass by without having to say hello. The dark mood though wants to have all of a sudden and very abrupt the possibility to step up the stair and to be in the green paradise, and to sit on the roof and smoke , in the sun, and with seeing all the way across the river and the city: The stairs lead up on the third floor, which is encroached by glass houses, for palm trees and tomatoes, and in the streets between the glass houses the bad boys tune their cars and bikes, and in some of the glass houses bands play West Coast Rock, try to compete with the monotonous dark sounds that come out of one of the deepest dark mood offices (where the rats live, close to the water of the Hudson, below the first floor in the mezzanine above the rotten piles).
One can go directly to the big toboggan and slide down into the Hudson, where a little river bath pool is marked and secured, where you can let yourself drift with the current to the grill that secures the pool (not to drift all the way to Europe finally).

If this is the vertical contrast of the flat planes, the horizontal contrast is the one between defined, or even refined zones, and ones that are as open and un-defined as possible. The first ones are the places of the care-takers, people who find the sense of life in working for others (which once was called a disease and was medically treated). The caretakers administer, heal and serve the sense-seekers. These places have regular hours , they are

the constant node of the chaos around. These activities are by definition ongoing but without ever reaching a goal, the administrators, and doctors, and chefs have the easiest part of the ongoing sense-seeking: never everything will be administrated finally, healed, and the next day people will need again their cafe. The care-takers just brought their former profession to the institute, and they execute it as it is needed, but without ever striving for the wealth and the growth they formerly would define as their goals. Now even the dentist from New York who became a monk on Mount Athos (in the monastery of Agios Filotheous) travels regularly to the institute (the only reason for him to come to the city), and once he even expressed that he would maybe not have gone so far away if the lonely towers would have been here earlier.

The institute calls a number of its restaurants kitchens, and is building thereby on the observation that at parties people would rather hang out in the kitchen then at the real party room: the kitchen is the chaotic part of the 'home', and the one where the sense of life is discussed, while in the party room the forgetting and the unconscious is celebrated - but none of them can survive without the other.

At the side towards West Street the Flat planes are dedicated to the care-takers, to some of the kitchens and party rooms, and to the dealers. The dealers' place is the dangerous bazaar, you go there not only to get your daily supplies, but also to get ripped off, but before that you want to have as much as possible smartness and bargaining and fun and struggle, and life definition. You all of a sudden get sucked in a dark place there, in a world you cannot handle, and intrigued by the talk of this smart guy without teeth in his mouth (too miserly to go to the dentist). And then you sit there for hours, and try to save ten cents for this piece, and you have to talk about everything in the world during this time, and you get gallons of coffee and tea, and come out there with stories for your children and the pleasure to have made a good bargain (worthless piece finally, but worth something because of the stories behind it).

In the middle of the flat planes is the large void, the loading yard, where the trucks come with the trash for the trash assemblers, and where the large welding and grinding takes place, and where in between freaks are tossing weird disks and boomerangs, and where the passer-byers and joggers from the Hudson River Waterfront Park of Unconscious Happiness come in and stare with open mouths onto all this activity and noise and yelling and pleasure.

They might find the sign that leads them to the small guest house, with the facade to the street on the one side, to give them the view on beauty and order, and the facade to the other side that shows them the weirdness of re-combination that happens in the court-

yard and the flat planes. They live side by side with sense-seekers from all over the world that move to New York and wait until another sense-seeker wants to move away from New York, to then take over their lonely towers, or they already started to build a wild hut on top of one of the dense tubes, or dwell in a piece of the tomato glass house, or spend their entire day in the darkest spot they found to surf on drugs through realms beyond imagination. Everybody is always a freak for the first time, but it has proven that after a while the freaks climb out of their holes and start to take on the challenge of sense-making with as few as possible mediators.

What the visitors will in particular encounter in the court of the institute, are very small and walled off areas, from which an incredible aura can be sensed, only small voids are in their high brick walls, but above the walls a variety of vegetation and trees with grand dignity shows, and the places are almost supra-naturally quiet, just by virtue of them being situated in the harsh and loud court as islands.

The largest part of the flat planes is occupied by users that take advantage of the large horizontal surfaces in there, and they spread out there and they paint and saw and perform and make music and show films and weld and experiment (and dwell and sleep) there to a scary degree. Only narrow paths lead through this jungle, along and between the tubes that are inserted, somewhere all of a sudden stopping at dark and dangerous spots, a labyrinth, beginning from the inner traffic access around the courtyard and directed towards the outer perimeter.
The flat halls remain not only reachable at all floors by cars and trucks, but some freaks cannot sleep without their Harley, so they take her into their places.
The planes are very wide, up to 170 feet, and provide therefore different zones of light and interaction with the outside world but also with the interior circumstances. The planes are so large that when the institute bought the parking garage it had only to pay for the outer 30 feet at each facade, because nobody could imagine a use that is further away from the windows (in these simple constructions, and without major investments); the institute knew though about the particular value of these 'un-usable' spaces, and it knew that there is a cheap method to bring qualities into the middle: large concrete drills.

At the outer side of the pier (the Hudson side), the new old Queen Mary docks, almost too large for the 900 feet length of the pier (the Queen Mary is just been refurbished

during long years by the QM enthusiasts in England, and they consequently chose the Institute as the world headquarters of their transitional world of sense-seeking, since in particular Cunard gave them a hard time as opponents in the super liner market, rightly so, Cunard with its outdated animation concept for the QE will go out of business soon). Now this huge boat all of a sudden in the morning is in front of all the workshops, and everybody is stepping out to ask the travelers about the latest developments, and maybe encounters with icebergs that melt off through the global warming (not that the institute would care too much, it can just lift itself up, and the lonely towers are anyway alright).

Also on the Hudson side is the main pier for the fast boats, that now connect all waterfronts of the New York area (and many others along the coast), and all the institutes at the waterfront (much faster and much more pleasure to take the boat).

Finally at the north side of the flat planes is the docks for the many house boats from all over the world (and not only the one lonely steam boat that now docks in front of the Battery Park Disaster), the transitional places of the sense-seekers (although some times also a slick yacht of a money-maker docks there, hoping for animation - wrong go); the house boats are an inevitable part of the institute, since they are the continuos promise to go for the complete loneliness (and there are plates at the piers with the names of every boat that ever docked there, and when information about its present location and occupation is received, it immediately gets posted there, and it is the every days occupation of the sense-seekers to go to the piers and read the latest sense-seeking news down there). But also the boats remind all the time that there is a world out there that has different truths then the local ones, the boats bring the desire and the wistfulness to have the sea wind around the nose and to explore distant senses, that is missing at the present water front.

Piranesi, Dark Halls
source: Rotch slide library, MIT

The Refined Capsule

From the outside, the most striking feature of the refined capsule, itself an egg floating on top of the flat planes, is the docking ports at its top with the Zeppelins from Europe hanging their, slowly turning around when the wind changes direction, majestic icons of slow sense-seeking travel, (no fear: this time filled with Helium, and not named Hindenburg, and produced by a non-profit enthusiast factory in democratic Germany). Maybe the old mooring posts at the Empire State Building could still have attracted them more then the ones at the refined capsule, but the Empire State Building refused to have money-less sense-seekers disturbing its corporate boredom - today they really are sorry for that mistake.

One of the most important things that the Institute knew was that a certain amount of places where the sense-seekers exchange the latest or deepest minded re-assemblies have to have a very carefully done shape and atmosphere. Down in the dark halls, or out in the lonely towers a good part of the exchange happens anyway, interesting and exciting, but the event as such is not yet covered there. Similar to the virtual realm, the network, those are continuous enterprises, one that do not actively care about the inevitable changes of modulation in their contact with each other nor can accomplish the necessary changes of location, the distance to evaluate and get comments. The institute supposed that rhythm is a basic and archaic feature of life, and that only a very special physical place can take rhythm into account.

For this reason a volume was commissioned that had as its only guideline the event in focus: The refined capsule. It is not inhabitation, nor individuality that matter here, but the facilitation of events; The refined capsule is the volume that is flexible, and not idio-syncratic, it is the volume that performs for the entity of the users of the institute; it should be able to represent them all together.

The events in the refined capsule range from the large presentation and performance, over a meditative coming-together in a contemplative common place, to the club-like atmosphere of an informal reading room.
The rooms are not designed for the display of goods, these activities take place in the flat planes below, the rooms in the refined capsule are designed to facilitate in the best possible way the culture of exchange between the colleagues.
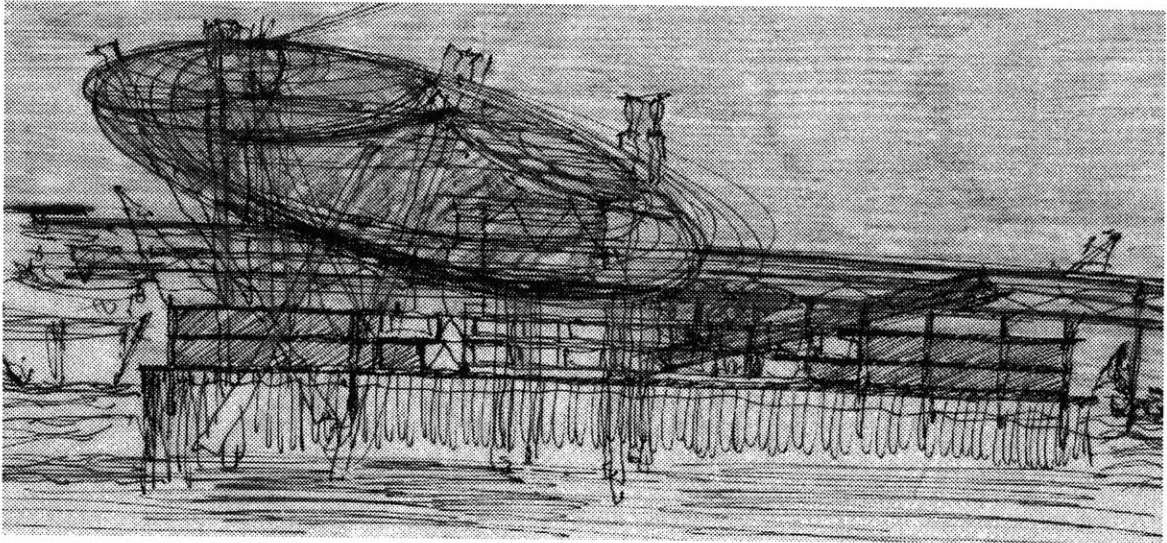
The Refined Capsule on top of the Flat Planes

Zeppelin over New York City, new
docking station at the Refined
Capsule
from: Homepage Zeppelin-Werke
Friedrichshafen, Germany
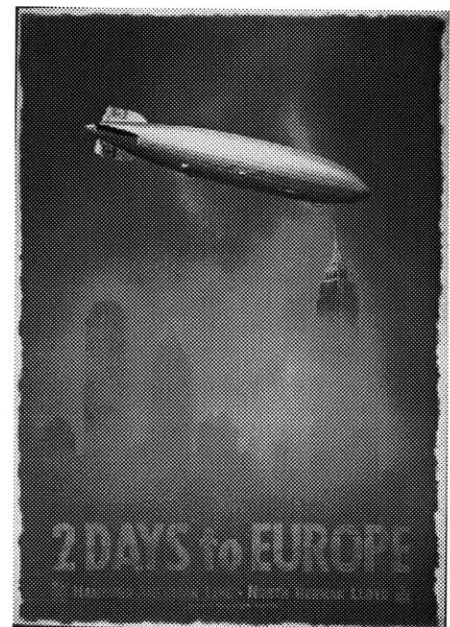
The location of the refined capsule is at the intersection of the big connector with the main ramp (that leads to the upper decks). The refined capsule floats partly on top of the courtyard, and there the sting from it comes down to the ground with the elevators and stairs that lead up to the main foyers, and that lead up to the back stage at its northern end. Above the large audience hall the contemplative volume floats, reached mainly from one of the green courtyards and with a stair and elevator tower made of old red bricks, in contrast to the shiny surface of the capsule. The reading-clubroom is reached from the flat halls of the library at the south west corner of the institute, and the reading-club-room is overlooking the south Hudson River, seeing the Statue of Liberty and the Staten Island shipyards, and with the huge telescope to watch the stars that is sitting on top of the reading room (that the sense-seeking astronomers brought with them) one can watch during the day one lonely (and not affiliated) sense-seeker (next to this spiffy yacht with the helicopter on deck) who talks to the monkeys that come out of their green house of the world financial center, and wants to make clear to them that they should better start to get aware of their human specificity before they die corporate deaths.

The members of the institute invested all their energies into the refined capsule, and everybody is very proud on it being the landmark at the river. All the rooms are used in a very dignified manner, welcoming guests from the boats and Zeppelins and from the city, being aware that here occurs everything that will ever possibly make the sense of life.

Globe Tower, Manhattan
from: Koolhaas, Delirious New York

Bibliography

(on Chaos Theory) Alvarez, A., Night, Night Life, Night Language, Sleep, and Dreams, New York, 1995, W.W.Norton & Compnay.

Calvino, Italo, Die unsichtbaren Staedte (Invisible Cities), Muenchen, 1992[1985], DTV.

Colquhoun, Alan, Essays in Architectural Criticism, Modern Architecture and Historical Change, Cambridge, Massachusetts, and London, England, 1991[1981], Opposition Books, The MIT Press.

Conrads, Ulrich, Programs and manifestoes on 20th-century architecture, Cambridge, Massachusetts, 1994[1971], The MIT Press.

Eco, Umberto, Der Name der Rose (The Name of the Rose), Muenchen, Wien, 1982, Carl Hanser Verlag.

Feireiss, Kristin (editor), Paris – Architecture et utopie, Projets d'urbanisme pour l'entree dans le 21eme siecle, Berlin, 1989, Ernst & Sohn.

Flusser, Vilem, Ins Universum der technischen Bilder (Into the Universe of the Technical Images), Goettingen, 1992[1989], European Photography.

Hayden, Dolores, The Power of Place, Urban Landscapes as Public History, Cambridge, Massachusetts, and London, England, 1995, The MIT Press.

Kasinitz, Philip (editor), Metropolis, Centre and Symbol of Our Times, Houndmills, Basingstoke, Hanpshire and London, 1995, MACMILLAN PRESS LTD.

Klotz, Heinrich (editor), Vision der Moderne, Das Prinzip Konstruktion (The Modern Vision, Construction Principle), Exhibition Catalog, Muenchen, 1986, Prestel Verlag.

Klotz, Heinrich, with Sabau, Luminita (editors), New York Architecture, 1970-1990, New York, 1989, Rizzoli.

Koelbl, Herlinde, Sack, Manfred, Das deutsche Wohnzimmer (The German Living Room), Muenchen, Leipzig, 1995[1980], List Verlag.

Koolhaas, Rem, Delirious New York, A Retroactive Manifesto for Manhattan, New York, 1994, The Monacelli Press.

Lynch, Kevin, The Image of the City, Cambridge, Massachusetts, Cambridge, Massachusetts, and London, England, 1993[1960], The MIT Press.

Mitchell, William J., City of Bits, Space, Place and the Infobahn, Cambridge, Massachusetts, London, England, 1995, The MIT Press.

Mumford, Lewis, The City in History, Is Origins, Its Transformations, and Its Prospects, New York, 1961, Harcourt, Brace & World, Inc.

Norberg-Schulz, Christian, Intentions in Architecture, Cambridge, Massachusetts, 1992[1965], The MIT Press.

Norberg-Schulz, Christian, Meaning in Western Architecture, New York, 1980, Rizzoli.

Oldenburg, Ray, The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Hangouts, and how they get you through the Day, New York, 1989, Paragon House.

OMA, Koolhaas, Rem, and Mau, Bruce, S,M,L,XL, Rotterdam, New York, 1995, 010 Publishers, The Monacelli Press.

Rote Fabrik: Aneignung, Nutzung, Feiraum (Red Factory: Inhabitation, Use, Liberty), Zuerich, 1995, ARFA und Doris Franconi.

Schirmacher, Ernst, Stadtvorstellungen, Die Gestalt der mittelalterlichen Staedte, Erhaltung und planendes Handeln (Imaginations of the City, The Gestalt of the Medieval Cities, Preservation and Planning Activity), Zuerich und Muenchen, 1988, Artemis Verlag.

Smith, Merritt Roe, and Marx, Leo (editors), Does Technology Drive History?, The Dilemma of Technological Determinism, Cambridge, Massachusetts, London, England, 1995[1994], The MIT Press.

Sorkin, Michael (editor), Variations on a Theme Park: The New American City and the End of Public Space, New York, 1992, Hill and Wang.

Stern, Robert A.M., Gilmartin, Gregory, and Masengale, John, New York 1900, Metropolitan Architecture and Urbanism 1890-1915, Neew York, 1995[1983], Rizzoli.

Stern, Robert A.M., Gilmartin, Gregory, Mellins, Thomas, New York 1930, Architecture and Urbanism between the Two World Wars, New York, 1994[1987], Rizzoli.

Stern, Robert A.M., Mellins, Thomas, Fishman, David, New York 1960, Architecture and Urbanism between the Second World War and the Bicentennial, New York, 1995, The Monacelli Press.

Turkle, Sherry, Life on the Screen, Identity in the Age of the Internet, New York, 1995, Simon & Schuster.

Turner, Paul Venable, Campus, An American Planning Tradition, New York, Cambridge, Massachusetts, and London, England, 1984, The Architectural History Foundation, The MIT Press.

van Ingen, Anne, Dollens, Dennis, Independent Projects, Experimental Architecture, Design + Research in New York, New York, 1993, Lumen, SITES Books.

van Leeuwen, Thomas A.P., The Skyward Trend of Thought, The Metaphysics of the American Skyscraper, Cambridge, Massachusetts, 1988[1986], The MIT Press.

Vonnegut, Kurt, Player Piano, New York 1980[1952], Laurel.

Wohlgroth, Zuerich, 1995, Edition Patrick Frey.

Wright, Gwendolyn, Building the Dream, A Social History of Housing in America, Cambridge, Massachusetts, London, England, 1992[1981], The MIT Press.

Yelawitch, Susan (editor), The Edge of the Millenium, An International Critique of Architecture, Urban Planning, Product and Communication Design, New York, 1993, Whitney Library of Design.

Magazines:
Arch+ 1992, March, No 111, Special Issue on Vilem Flusser.
Baumeister 4/90, Das Case-Study-Program.
Deutsche Bauzeitung, 1993 June, v.127, n.6, p.108-114, Christiania.
The Architects' Journal, 25 January 1978, p.142, Christiania.
The New York Times Magazine, November 19, 1995, The Rich.

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