2

Altering the existing

the practice of an ethic of care and sustenance

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I. Mechanics of sustainability

- A moratorium on demolition and construction of buildings

Addition = extraction

The technological condition

- Avoid grand narratives
- “What is the worldview needed in order to consider this project sustainable?”

II. Re-valuation

- Design a mode of valuation
- Give an existence to what has value
- Think in terms of processes

III. Holding on

- Continuation - Use what is already there
- Reparation - Repair what is broken
- Alteration - Add what is valuable

IV. The practice of an ethic of care

- Reconsidering the role of the architect

Altering the Existing

The practice of an ethic of care and sustenance

This is a manifesto against incessant urban redevelopments under the name of “sustainability.” Its inherent destruction-creation cycle is harmful in two ways: categorical waste of material and processual degrounding of culture. Against its market-driven origin, we put forward a grounded worldview able to force a way out of the destructive economics by questioning its fundamental process. By abandoning totalising concepts and instead departing from the situated material conditions, we can properly approach the questions of “what is (pragmatically) useful and what is (practically) meaningful to keep?”

Given the conditional situatedness, an adequate way of valuation has to be designed specifically. Multiple “lenses” produce a relational non-static view of the building, which requires the dynamic curation of change rather than the static configuration of space. The last section will outline how this ecological architecture could have produced a future for the Chemistry building.

A moratorium on demolition and construction of buildings

The "Gebouw voor de Scheikunde" is an exceptional building that has fallen into the usual cycle of urban renewal. Without a classification as monument, Chemistry is dragged into the market-led culture of investment returns and technological progress which will in the very near future result in its demolition. This particular demolition is not an isolated case, but an example of the systemic way the contemporary economic scheme shapes the building culture. This document aims to formulate a constructive position against the redevelopment that disguises the demolition of the building as a social and environmental improvement.

A moratorium is a provocation to stress the need to think outside of the prevailing technoscientific system of ideas and to reveal its destructive nature. This nature was described by Schumpeter in the theory of economics "Creative Destruction"[1]: the capitalist mode of production relies on the continuous renewal of existing commodities to sell new commodities in its place. Creative destruction is the "process of industrial mutation [...] that incessantly revolutionises the economic structure from within, incessantly destroying the old one, incessantly creating a new one."[2] It is the essential fact about capitalism: in order to keep the growth of capital running, the old value of a product has to be crushed by a new product which then provides an added value. The terms "creative" and "destruction" coconstitude a cyclical process, in which Destruction accommodates a room for the Creation which instantly fills the gap with a pledge to progress[3]. Within the system of Creative Destruction, the destruction of the existing finds its justification through the rhetoric of obsolescence. Obsolescence can be understood as the constructed narrative, formalised into laws, standards, norms, economic constructs, etc..., that allows the

reproduction and extension of Creative Destruction. In other words, there is a need for a culture of obsolescence to justify a program of destruction. Obsolescence as "the process of sudden devaluation and expendability"[4] systematically and quasi-autonomously[5] dismisses the existing material conditions in favour of better performing new ones. This is in two ways untenable: (1) the categorical waste of material and (2) the processual degrounding of culture.

Addition = extraction

The contemporary form of construction practice produces waste and extraction: waste by dismissing the existing, extraction of new resources for the better performing building, and waste again as buildings are not made to last. The same happens with the technologies contained within buildings such as ventilations and heating devices, but in a faster cycle.

If the planetary scale of this replacement cycle of buildings and technologies is truly considered, it appears that the building industry is not only involved with building's performances. It is as much invested in the production of buildings. Instead of measuring a building's efficiency until no carbon is emitted during its lifetime, the building culture should be thought of as a globalised exhaustion of the different planetary boundaries. By taking seriously the complete global network, the weight of the production chain could balance the debate about sustainable consumption.

Architecture is most of the time thought of as an additive action. That is to forget that "Nothing is lost, nothing is created, everything is transformed"[6]. Any addition is equally mirrored by its negative: subtraction. The origin of matter is found in pits, digs, holes, and excavations all around the globe. Therefore, one of the perversions of the thinking is to consider a building 'carbon neutral' when it does not release carbon dioxide during its use. This focus on the lifetime puts light on a tiny fragment of the building's consumption while its entire production

system remains in the dark. Any building is an assemblage of numerous elements (door, lintels, window, walls etc..) and sub elements (screws, glue, plaster, mortar etc...) relying on a globalised extraction system. The matter is extracted from a continent, sent to be transformed on another, assembled here, wrapped there, and sold even furter where this 'world-machine' is invisible.

A non-extractive architecture[7] tries to shortcut any new production by giving significant value to the existing one. As they are already the results of a serious globalised effort, the question 'what to keep?' becomes a central concern that involves Felix Guattari's three ecologies of existing buildings: social, environmental, and psyche.

- Environmental for the use of resources
- Social for the belonging to a collectivity and shared memory
- Psyche for the sense of place and appropriation

To be able to grasp and value the intricacy of existing buildings, it is the worldview that needs to change. The worldview is a "mode of valuation", an ontological ethic that defines the relation to the diversity of the Real.

The technological condition

Different from how the performative dispensability makes technologies appear, these constructions and objects constitute in fact an utterly fundamental role in the modern Human Condition. In the evolution of the human, it is technology which enabled the development out of/elevation from the binary relation between nature and human. Technics are a product of human work, best understood as the theoretical opposition to the products of human labour. Where human labour is in direct relation to its environment and serves immediate consumption to sustain the energetic demand for biological life, human work produces technicities external to the immediate metabolism with nature.[8] With these objects around us we establish a stabilising continuity against which our otherwise dissipating life enfolds. This cultural sphere is established within the objectified world[9], the human artifice which is inherited through generations. It transcends the end of individual lives and enables future generations to structure life through participation with the inherited human artifice, to ward off the instability of the loss of meaning. "The life of the mind [...] in other words, is inscribed, or externalised, in technical objects and constantly rewritten through the internalisation of these objects. Humans exist as différés, differed and deferred, in a state of suspension, constitutively open to being technologically rewritten in the future." (p.24 moore)

When, with the mechanics of Creative Destruction, the human materialised cultural frame of reference (Existential Territory) is consistently reduced by the destruction of objects and constructions until the point of elimination in favour of change itself (by the name of progress), the frame of reference becomes that change itself (presenting itself as a meaning of life in a society of consumption: not the achievement of a state of excellence, but the continuous commitment to excel, even the previous own achievement). This rapid 'liquidation' of technicities does, however, not change the role of those technicities. We still require the externalisation of memory to safeguard the understanding of a continuity and the maintenance of our capacity to organise life (negentropy), even if these externalisations are systematically fleeting[10]. Without (stable objects to 'attach' to, we lose the capacity of an individual differentiated human being able to deal with life by means of its own techniques, enabled through specifically and individually adopted technologies. Instead we regress into a bestial condition which adapted to the inescapable short term of the present (for it could not adopt technicities to build alternative futures with): it is regressed to a labouring productive unit without the capacities to escape from this 'emancipated' condition.

So the reductive definition of sustainability as the efficient management of energy does not produce a larger reflection on what is the ability-to-sustain, what it is 'to last'. Through legislative standards on energy management, the concept of sustainability became normative

and universally applicable everywhere, justifying projects like the demolition of Chemistry that have no intention to last whatsoever. Simultaneously, 'to last', needs not to be loaded with conservationism. It rather describes something of a curated continuity, vitally important in our society where the Human Condition is in fact the Technological Condition.[11] Our human condition is externalised and embedded in the material conditions around us. It is therefore clear that the demolition of those material conditions undermines the cultural continuity of our society, our ability to last.

Avoid grand narratives

The distortion of the concept of sustainability comes from its affiliation to the grand narrative of technical progress.[12] The narrative, inherited from emancipatory intentions of modernism, leads to the constant upgrading and renewing of technological performance, fuelling the cycle of Creative Destruction through which the Modern ideal became an engine for capital growth. This discourse is so embedded in our culture that it has managed to transform the meaning of words such as 'sustainability', 'resilience', 'green', 'durability', into a veil that covers the relation of extraction between our building industry and natural resources. Heidegger critically described our human relation with those natural resources as that of a standing reserve[13]. With adequate technology, any natural material can be mobilised to perform a human interest and with the reliable certainty of that technological availability the extractive machinery does not need to acquire the resource to recognise the unabated material potential of the earth, thereby opening the possibility to limitless technological progress. At Heidegger's time these resources were plentiful, but now their depletion is in sight. It has become clear that the reserve cannot last our relation with it. Yet today, the semantics of the "green" makes us believe that the building industry is not

complicit in the depletion of the biosphere. These words belonging to specific forms of progress and emancipation have been misused to serve a system of extraction and its market economy.

This corruption of language through imprecision and confusion leads to the corruption of thinking by preventing the idea of a critique and change. It is part of what Louis Althusser calls a "Dominant Ideology" [14]. The dominant ways of thinking and value-system which represent the interests of the ruling power - the free-market -, allow for its defence and reproduction.

The redevelopment programme of Chemistry exemplifies this confusion of terms, while showing how that confusion relies on a specific perspective. Chemistry is by any means built to last. Not only to last in time, but also to explosions, to intense and continuous use and to fire. The simple and reliable construction is impossible to explain with the narrative of energy efficiency, but to the foreman of the demolition contractor it was beyond discussion that this building could last another five-hundred years. The early demolition of the garage in the garden cost them twice the expected time and produced three times the expected rubble. The construction logic of the entire complex is one of solidity and its earlier high demand on the biosphere's standing reserve is now again reduced to a vast mass of second-degree standing reserve[15].

Simultaneously, the caretaker demanded of all temporary inhabitants to reduce the room temperatures as these thirty people produced an energy bill of 150.000 euro over one year. With the narrative of energy efficiency, heating costs is a leading argument put forth to justify the unsustainability of the building.

The peculiar point in this conflict is that the actual Real does not conflict at all through an economic resolution. The involved actors with power to influence the conditions of Chemistry are in power by their economic position. As such their interest, their very way of functioning, has a need of profit or return for which they mobilise the narrative of sustainability. The narrative of new green architecture allows highest profit for the developer, while

the solidity of the existing building provides substantial work and therefore turnover for the demolition contractor. With economics employing the narrative of sustainability as energy efficiency, the sustainability debate gets neutralised.

"What is the worldview needed in order to consider this project sustainable?"[16]

Moving away from the reductionism imposed by economic measures requires a change of worldview that starts with questioning from where to formulate ideas. In opposition to the modern dominant point of view, thinkers such as Félix Guattari, Bruno Latour, Isabelle Stengers, Donna Harraway and Helene Frichot, concurrently formulate 'situated narratives'. They argue a way to value the world which refuses the generic application of reductive ideas and instead invites the development of concepts from within a situation, embedded in a network of interdepencies. This discourse on the possibility of 'situated narratives' in and about the Real is articulated around three complementary notions:

- Existential territory and Subjectification. Existential territories are the material and immaterial environment of one's life. From our impalpable beliefs and practises to the physical matter of our houses and cities, Guattari guides our attention to what our lives rely on. He warns that they are invested and gridded by capitalistic subjectification. Our subjectivity is altered by homogenization forces that are expanding our tendency to conformity. From that observation starts the opportunity to resingularise and bifurcate ourselves from the gridding of our existence by means of an autonomous subjectivity. The ambition is to increase the heterogeneity of existential territories.

- Thinking from the milieu. Thinking from the milieu implies to think without 'grounding definitions' or 'ideal horizons', but instead to think with the surroundings.

"With the surroundings' would mean that no theory gives you the power to disentangle something from its particular surroundings (...)"[17] Concurrently this implies: "(...) to resist any concept, any prospect, which would make those destructions the condition for something more important."[18]

- Explicification. For Bruno Latour, "thinking from the surroundings" means to make explicit what are the 'life supports' and 'collaborators' that maintain us in a stable condition. As an astronaut is reliant on his space suit and space station, we are reliant on our own earthly envelloppes and folds.

These three notions aim to direct attention within the situated context. To that end, a proper valuation requires a level of immersion into that situation. Only from within the intricacies can be recognised and subsequently explicified in order to become transmittable and reflective. As such a project could be built with reference to its own context only, having no need for grand narratives to explain away the delicate specificities which sustain that particular situation.

Design a mode of valuation

In her book Creative ecologies[19], Helene Frichot coined three sequential tactics[20] : surveying, gleaning and unthinking, that would iteratively keep a continuous attention to what surrounds us, to those things out of the ordinary. It is an inquiry into the ways to approach the complex reality without falling into reductionism.

- Surveying is the study of a usual situation, the ordinary and the conventional, which you learn to understand by spending lengths of time surveying the place. Understanding the customs of an environment then allows you to notice those things out of the ordinary. Describing this involves both the things going on and the place in which they go on.

- Gleaning is the attitude which assumes to find value in any kind of situation at all, by persistently and painstakingly sifting through all left-overs. These "leftovers", are technicities that entail a particular technology-practice. Thus to glean is to find the border of a practice.

- Unthinking is the process by which a theory emerges from the Real. It comes from a subject of study encountered through the tactics: surveying and gleaning. In other words, unthinking makes explicit the modes of valuation as they surfaced through surveying and gleaning: to think what was unthought. To think the unthinkables by accepting, as Harraway[21] suggests, the unavailability of categorical thinking, implies that what was left unthought before will have to become thought now, and supplied with a narrative of its own. It should produce the ability to spot and safeguard a bifurcation away from the gridding of our existence.

In the Chemistry situation these tactics lead to different perspectives that allow the adequate valuation of the material conditions in advance of an intervention. The result of these tactics gives an existence to the unthought parts of the building by means of architectural representation.

Give an existence to what has value

Four central issues aim to reveal the situated qualities of the building. Two are concerned with material culture, and the other two are concerned with practises. They are interdependent and address different scales. (1) the language of construction, (2) the objects contained within this envelope, (3) the diversity of human practises sustained by the objects and the envelope, (4) the existential territories of the non-human practises.

(1) Language of construction

Chemistry is made to last by virtue of the craft of its elements. They are made to resist explosions and their constructive connections are neatly executed. This standardised grammar of elements produces the entire building through its predominant constructive logic: repetition. Steel windows, concrete canopies, brick walls etc... are rationally and materially manifest the positivist ideal of the 1930s. The embodied energy and memory in this construction is a signifying system that holds a part of the social corps in its matter. A sense of continuity is needed in transformations of buildings.

(2) Objects

From shelves to tables, chairs to screws, radiator to kitchen cabinet, the objects contained within the building reveal the technological condition on which our lives rely: we are permanently augmented by all of these external organs or technicities. In the case of the standardised construction of the building they facilitate a feeling of appropriation, a sense of home and a scale more fit to a dwelling human. By naming and drawing these 'life supports' the role of objects in their contingent human practises becomes explicit. Whether it is to wash dishes, cook food, sit and talk, shower or sleep, objects are the material conditions of the 'metabolism' with the environment.

(3) Human Practises

Chemistry hosted around fifteen inhabitants. Their practises are the core of what both the building and the objects enable. They are sustained by these material

conditions and reciprocally give meaning to them. In (an ecology of practises), Isabelle Stenders invites to avoid describing practises ‘as they are’ but ‘as they may become’. It is important to think of the relations between the existing envelope, the object contained and the ongoing practises as a mechanism of becoming. The existing uses of the building are the ground to imagine a progressive transformation of it.

(4) Non human practises

Chemistry is organised around courtyard gardens. The existence of this genetic reservoir, flooded by biodiversity, is vitally important concerning the site’s near future. As coined by Gilles Clément’s notion of the “planetary gardens” there is an ecological finitude of the world and a constant circulation of species around the earth. It is important to resist any further decline of this planetary garden. The focal point of this project’s ethic proposes to safeguard the ongoing dynamics of the site. As Emanuele Coccia[22] would say, plants are not an ornament added to the world, they are our world, they are us, we breathe with them.

Think in terms of processes

These four lenses produce a non-static view of the building. They imply thinking about the invisible part of buildings: processes and movements. A building is not only its finished state, it is all the past and future displacements of matter that make it stand and that sustain life inside and around. Contrary to the appearance of a typical architectural drawing, a building is never in a finished state. Both its material and its meaning are constantly ashift. The materials that were transformed into specific construction elements for the building are in decay and require maintenance. Both the decay and the maintenance change the state of the material and the building with it, the more as time passes and the more as one takes over the other. Simultaneously, rooms might

get new uses, new rooms might be added to accommodate new programmes and higher demands might require the change of installations. Never is there a finished moment secured, always it is in transition to the next state. When the ambition of a design becomes this transitional view of a building, it should be possible to unhinge the cycle of Creative Destruction. Because the state of the material condition would appear relative to the former and next state it transits to, its performance in an isolated moment must lose its normative character. Then while the practice of an architecture would still require its traditional documents to designate which material goes where, it will have to be supplemented with a documentation of where it came from and where it could go: what are the previous conditions of meaning and matter and what could be the next? It implies the description of a sequence over time, without it being a discrete schedule formalising what ought to happen when. Rather, it needs to facilitate an organisational framework that enables a new constellation to emerge from a previous one. It needs to channel a flow of materials in an unfinished state, using and adapting them with every iteration, accepting the temporal condition permanently. Taking time as the project led by the situated practises should enable them to last.

The result of this systematic approach to a project is unavoidably particular to a situation. The different lenses through which the building is diffracted are particular to the chemistry building. Nevertheless, the translation from valuation to ways of alteration adds an illustration of an ethic of care in the architectural field. Ideally, this time related understanding of a building remains common to all projects claiming to belong to this ecosophy.

The four lenses produce an interwoven view of the Chemistry building which for the sake of the argument will be artificially distilled in three sections.

- Continuation: the lenses produce a view of what is currently valuable in the building. In other words, what the current meaning of the construction is in its context and to its uses;
- Reparation: these uses face specific problems that get in the way of their development (further bifurcation) by the constraints of the physical state of maintenance/ repair of the building;
- Alteration: the spaces unattainable by existing uses need alteration to fit itself to its context, thereby allowing the uses of the adjacent context to extend into the existing structure.

Continuation - Use what is already there

The Chemistry building had a well established temporary occupation for two years. Aware of the peculiar spatial constraints of the building, these inhabitants brought their own possessions to appropriate the space. The network of people around them would be exposed to their different way of living and were often interested to take part. To enable that, many of the former offices would be useful if supplied with water and electricity, and ridded of some of their chemistry-particular (retro)fittings so that the rooms can host the objects that new occupants need to establish themselves. By the facilitation of this almost self-regulating inhabitation, a new programme for

the building could start taking shape, emerging out of the site and its network of active actors.

During the two years of temporary occupation there were initiatives to form collectives using a series of adjacent spaces for dwelling or working. These initiatives could be a start to also give new meaning to different types of spaces which would require bigger intervention and as such start to turn the meaning and use of chemistry more fundamentally (less temporarily).
At the same time, the non-human practises on the site developed over the two years without ‘gardening’ and only moderate use. As such it reached a new state with more dense vegetation, growing new and denser shelters and a substantial buffer of cool and moist air on warmer days. Nevertheless, the gardens are still fragile to the persistent human urge of ‘cleaning’ and need active protection to prevent cutting-down, especially when human use of the premises would grow denser.

Reparation - Repair what is broken

With intensified use, the already late maintenance would need to become part of the designed process. In the case of Chemistry, the excess of large spaces offers the opportunity to organise this maintenance work in a workshop that would also serve later and larger construction works. Maintenance would involve what is simply in bad condition, like rusting windows or leaking roof tar, but also the spatial features that got damaged or neglected over time, like covered up rooflights for installations unnecessary for practises other than chemistry ones. Maintenance reparations should be understood as the works that are invested to sustain the best spatial conditions and will require knowledge of older crafts that produced existing building elements so they can be cared for adequately.

Alteration - Add what is valuable

The parts of the building that no longer serve a practice other than its own decay can also be understood as in need of a reparation, but one of a slightly larger scale. The original almost mathematical practicism of the design[23] was not at all times able to avoid difficult corners in the building, sometimes producing spaces that were acceptable for specific chemistry purposes, but difficult to use again outside that realm. Plenty of rooms are hard to excess, difficult to navigate too, or trapping stationary air in a deep dark corner of two wings. Some of those characteristics are in fact intentional to the very particular spatial demands of a specific chemical exercise or product, but prevent those spaces from being usable for new practises to which easy access, decent daylight and good ventilation are conditional. As such some of the building's characteristics in particular locations require alteration so those spaces can be understood for contemporary, more conventional practises. The insufficient spatial qualities do not require Chemistry's demolition, but do require significant change. Their previous use exhausted them, left them broken but not useless.

IV. The practice of an ethic of care

Reconsidering the role of the architect

Recognising the residual usefulness and beauty of those exhausted constructions dismissed by the contemporary building practice requires a different practice of architecture than the one that is now part of that economy-led practice. The exhaustion of those buildings could be the start of such a bifurcation, in that it momentarily liberates that construction from the grip of economic development. In this wake of classified worthlessness getting hold of Chemistry, we tried to grow from that situation this ecological alternative to come out with a set of tactics (theoretically[24]) able to ward off the destructive result of a culturally ingrained story of progress. By exchanging the process of Creative destruction with that of Creative Adaptation, we could strive to hold on to the material conditions that stabilise our human condition. It will demand an immersed 'perspective' that will laboriously have to be reconstructed with every new or changed situation and limits itself to craftily, small-scale, intricate and gradual interventions. Then the meaningful processes would be exposed with their qualities and problems, allowing for adequate interventions to make-due and make-last.

What this rather technical story in the end amounts to, is a living together that has that notion itself as its careful objective, constituting for itself a strong collaborative with the resources, material and immaterial, to deal with unavoidable times of shortages and excesses: "learning practical healing rather than wholeness."[25] Chemistry could become a place that requits(accepts/hosts) the affection of the practitioners/its dwellers in its constitutive parts, reconfiguring now and then those elements of memory, sometimes letting in new ones, sometimes letting go of old ones. Newcomers becoming-with pioneers when they land their own memories in the fertile fermenting soil of the ones of older age. It is about holding on to the stories so they can "sediment in the technical artefacts"[26], becoming the humus to grow new stories from. Adopting, rewriting and eventually, but only eventually, overwriting the original ones. "'[T]hinking care' is a vital affective state, an ethical obligation and a practical labour."[27]

Notes

1. «Schumpeter, Joseph A. 1976. Capitalism, Socialism and Democracy. London: Allen and Unwin.»
2. «Ibid, p.83»
3. Where in the early stages of the project of modernity progress was still a mobilising factor for emancipation, we must now acknowledge that "there no longer appears to be a cause-and-effect relationship between the growth in techno-scientific resources and the development of social and cultural progress" «Guattari, F., Pindar, I., Sutton, P. (2011). The three ecologies (Reprint, Ser. Continuum impacts). London: Continuum. p.40»
4. «Abrahamson, M. A. (2016). Obsolescence, An Architectural History. London: The University of Chicago Press. p.2»
5. It is quasi-autonomous in that it is ingrained in both laws and in the cultural sphere. Progress has become a culturally established phenomenon or desire and laws demand a minimum performance. Both of which engage in the narratives of creative destruction, and maintain the cycle of material replacement by their mutual dependence. Even though particular laws, advertisements, fashions etcetera are not autonomous, they are necessitated by the economic gridding of the society they are part of and hence their interdependent functioning is generally autonomous. «Moore, G. (2013) Adapt and Smile or Die! in: Ross, D., Howells, C., Moore, G. (2013). Stiegler and Technics. Edinburgh: Edinburgh University Press. p.30»
6. «De Lavoisier, A. L. (2019). Traité élémentaire de chimie. Maxtor France.»
7. «Space Caviar. (2021). Non extractive architecture, on designing without depletion. Sternberg Press.»
8. «Arendt, H. (1959) The Human Condition. Chicago; London: University of Chicago press.»
9. «Moore, G. (2013) Adapt and Smile or Die! in Ross, D., Howells, C., & Moore, G. (2013). Stiegler and Technics. Edinburgh: Edinburgh University Press. p.21»
10. Which shows the fragility of those created futures reliant on the technicities: with their removal the constitutive foundations disappear also: recessing the established human life back into an unstable dissipating life. «Ibid p.25»
11. «Moore, G. (2013) Adapt and Smile or Die! in Ross, D., Howells, C., & Moore, G. (2013). Stiegler and Technics. Edinburgh: Edinburgh University Press. p.19»
12. A 'metanarrative' or 'grand narrative' is a narrative which offers society legitimation through the anticipated completion of a master idea. «Childers, J., G. Hentzi, G., (Eds.). (1995) The Columbia Dictionary of Modern Literary and Cultural Criticism. New York: Columbia University Press p.186»
13. «Scharff, R. C., & Dusek, V. (Eds.). (2014). Philosophy of Technology: The Technological Condition: An Anthology. Oxford: Wiley Blackwell. p.257»
14. «Althusser, L. (2014) On the Reproduction of Capitalism: Ideology and Ideological State Apparatuses. London: Verso Books.»
15. With the recycling of materials being the norm in the construction practice, (through legislation and adaptation of waste processing) these construction materials become degraded to a raw material of lesser quality by their contamination with other materials from earlier assemblages. Their treatment is not so much different from the natural standing reserve in that it is again extracted with destructive technologies in order to serve the fabrication of something new. Hence, 'recycling', a concept typically understood as sustainable, can be mobilised to serve the process of renewal for progress.
16. «Gielen, M. (2014) The Seven Lives of Sustainability.»
17. «Stengers, I. (2005). Introductory Notes on an Ecology of Practices. Cultural Studies Review 11. p.5»
18. «Ibid. p.3»
19. «Frichot, H. (2018) Creative Ecologies : Theorizing the Practice of Architecture. London: Bloomsbury Publishing USA.»
20. As opposed to strategies: tactics are the short term ways of doing that allow you to keep relevance in a fast and continuously changing situation (environment-worlds or habitat?). Strategies have the long-term connotation close to that of a masterplan or the "horizon" a company might "stipulate" to align its employees.
21. «Haraway, D. (2016) Staying with the Trouble: Making Kin in the Chthulucene. Durham: Duke University Press.»
22. «Coccia, E. (2018). La vie des plantes: une métaphysique du mélange. Éditions Rivages.»
23. Plan and section are structured around a window 147 by 155 centimetres, always 97 centimetres above the floor and individually 35 centimetres apart: the width of one-and-a-half brick. Ceilings are either 4.7 or 3.7 metres high, depending on their public position or the voluminous requirements of the room for chemistry experiments. Few specific important rooms, such as the library or the main lecture hall, acquired special treatment which deviated from the original rigidity. Other places that would have benefitted from a more generous spatial organisation did not deviate from that rigidity, presumably for financial reasons, and now present problems to the building's comfortable use.
24. Actually very pragmatic tactics that will for the settled faith of Chemistry never find their way to practice.
25. «Haraway, D. (2016) Staying with the Trouble: Making Kin in the Chthulucene. Durham: Duke University Press. p.136»
26. «Moore, G. (2013) Adapt and Smile or Die! in Ross, D., Howells, C., & Moore, G. (2013). Stiegler and Technics. Edinburgh: Edinburgh University Press. p.23»
27. «Frichot, H. (2018) Creative Ecologies: Theorizing the Practice of Architecture. London: Bloomsbury Publishing USA. p.216»