

OFF THE GRID

An Antidote
to Urbanization

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1 Reality

Here, a present condition of the built will be demystified. The purpose is to render visible something that most people, including architects, have accepted as an unchangeable truth. Something so omnipresent that it has become invisible for our eyes.

1.1 Infinite Urbanization

In Observations sur l'Architecture from 1765, Marc-Antoine Laugier puts forward the city as a natural creation by suggesting that the picturesque should influence its design methods. In Architecture and Utopia: Design and Capitalist Development, Manfredo Tafuri counters these Enlightenment presuppositions regarding the origin of the city. Instead, he presents the city as a creation fully functional to capitalist logics, as a tool to structure the movements of people and commodity by reducing frictions. This means that the city is not a natural phenomenon of human organization, but completely accidental. As a tool of capitalism, the city has persisted in time and has become the most common form of human organization.¹

The very basic definition of capitalism allows for an understanding of how the city completely would come to change the territory. Understood as a system of private ownership and operation of the means of production where capital accumulation is crucial,² capitalism unveils itself as an economical system that needs an unlimited growth. Recognizing the city as a mechanism highly adapted to capitalist mode of functioning explains therefore why there are cities expanding into one interconnected realm. In Europe, this resulted in cities that grew extensively in the wake of the industrial revolution, to the point that they started function through a logic that was cancelling the dichotomy between city and countryside. This unrestricted growth created by capitalism was interpreted by Idelfons Cerdà as something that could not be contained within what historically had been the delimited formation of the city. In order to describe this condition, the Spanish

¹ Tafuri, Manfredo. *Architecture and Utopia: Design and Capitalist Development*. Cambridge, Mass.: MIT Press, 1996, p. 4-5

² Encyclopaedia Britannica. "Capitalism." Chicago: Encyclopaedia Britannica, inc., 2019.

engineer coined the term urbanization or urbanización in 1867.³

In pointing out the most ubiquitous structuring figure of the continuously growing urbanization minimizing the frictions for the sake of trade, it would be a network. Historically and until today, the network in the form of a cartesian grid has consciously been applied as a design tool for organizing spread. Inherently embodied in its geometrical properties is its possibility of extension. The structuring of the territory and the growth of human settlements through this figure implies a rational and effective land use through control, but also colonization of land and people, optimizing the territory for producing profit. As highlighted by Pier Vittorio Aureli, the operationality of the grid has historically as well as today not merely been related to the desire of establishing a rational system of transport for the sake of trade. It is also the clearest example of how geometry introduced and supported the proprietary logic of land tenure by allowing the subdivision of land as measurable parcels and also the abstraction of land into monetary value.⁴

Thus, Cerdà's urbanization would be unthinkable without the grid as a tool for interconnecting and subdividing land implying the increasing interdependency of regions through the trade of goods. The ever-growing establishment of the grid has with urbanization resulted in an incomprehensible complexity of relations between actors where the local dimension of production and life in general is lost.

The cartesian grid has however lately been accentuated as a structuring figure relevant in territorial planning. Due to its isotropic properties, it has been defended as a figure showing up a uniformity in all directions and therefore has the capability to constitute the base for an egalitarian

³ Aureli, Pier Vittorio. *The possibility of an absolute architecture*. Cambridge, Mass.: MIT Press, 2011, p. 9

⁴ Aureli, Pier Vittorio *Appropriation, Subdivision, Abstraction – A Political History of the Urban Grid* in Log44, Fall 2018, p. 148

project. The research project Water and Asphalt: the Project of Isotropy by Bernardo Secchi and Paola Viganò theorizes the possibility for the Vento region with its existing figure of the grid to constitute the base for a new territorial vision. The cartesian grid of the region, called centuriation, is a heritage from the colonization of the territory by the Romans which is visible in the contemporary landscape as a road and canal network in between Padua and Mestre. The elements whose placement is derived from the centuriation are in the project rethought as forming a figure for developing the region.⁵

To highlight the grid as a structure capable of offering a uniform construction over the territory is nevertheless problematic since its possible intrusive aspect is undeniable. A project of the grid on the territorial scale becomes easily a project implying this ever-continuing growth of the same urban structure, because of its limitless geometrical properties. In looking at the contemporary field of urbanization developed through the network, it is evident that the dream of a uniform distribution of capital and therefore economic equality mirrored on the territory is far away to be seen. The infinite growth of our cities into one single continuum on the grid come with territorial symptoms. It is of importance to point out that this is beyond the question of aesthetics – what is at stake is not to complain about the image of the sprawl with its “ugly” architecture. Rather, it is a question of the functioning of the whole territory.

The single urbanized realm structured by a grid is strongly characterized by a zoning inherited by the Moderns that reverberates the stratification of society. Interdependent yet functionally distinguished parts make up the whole of the continuum. Depressive but prosperous financial districts close to the central stations, echoing empty dormitory towns of the

⁵ Viganò, Paola *Territories of Urbanism: The Project as Knowledge Producer*. Lausanne: EPFL Press, 2016, p. 39-49

middle class, industrial parks filled with companies that have passed on to service-based businesses, historical centers with tourists and shoppers and low-income neighborhoods for the workers and the unemployed. Nowhere has the increased spatial mobility engendered by the grid through its extensive infrastructure led to something resembling an egalitarian situation for its inhabitants.

Notwithstanding the deeply charged background of the grid, we cannot wish it away. The almost uninterrupted field of urbanization structured by the network makes up the reality of the majority of the people in Europe. The grid exists as perspectival lines in front of our eyes on a quotidian basis, as monumental avenues finishing with more monumental buildings in historical centers, as structuring the grand ensembles of the peripheries. It exists as highways surrounded with industrialized agricultural fields and electric cables. What started off as a physical, geometric figure structuring the built and privatizing the land has become so evasive that its ever-extendable scheme also has dematerialized, it has become invisible. By seeing the grid as web, it has also conquered or bodies through the rise of the internet. A force so strong that it cancels the here and now. Whether we acknowledge its problematic derivation or not, it constitutes the major backbone of our built and immaterial reality and needs to be addressed in architectural projects for the territory.

As formulated by Georg Simmel in the article The Metropolis and Mental Life, humans have developed a sort of defense mechanism within the urbanized realm. To cope with the chaotic metropolitan condition, humans developed what he called the blasé attitude.⁶ In line with his writings,

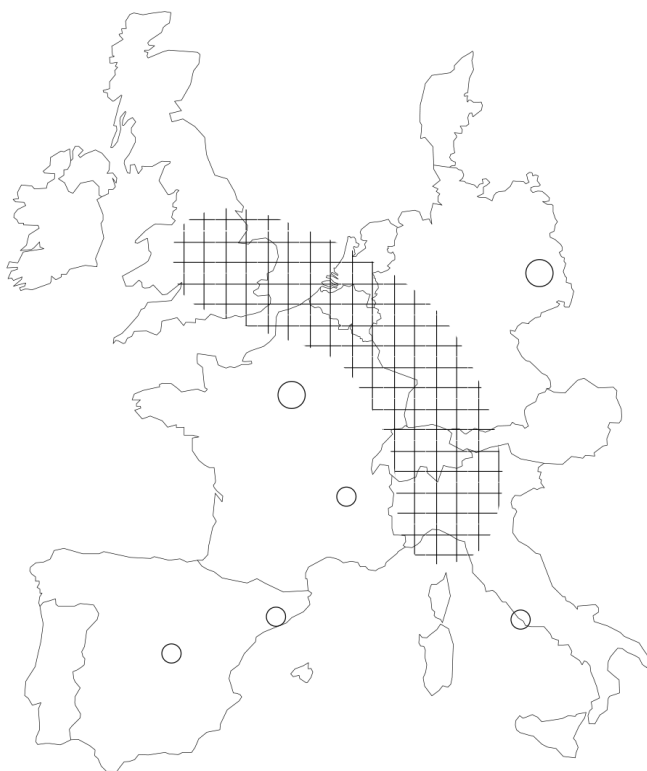
⁶ Simmel, Georg. "The Metropolis and Mental Life" in *On Individuality and Social Forms: Selected Writings*. Levine, Donald N., (ed.), Chicago: Univ. of Chicago Press, 1971, p. 324-339

indifference seems still like an attitude characterizing the behavior of humans within the urbanized field. We do not say good morning to our neighbor in the staircase anymore. We are not familiar about how vegetables grow. We do not bother that our technical products contain 30 metals mined in countries torn by civil war.

The seemingly infinite urbanization on the grid seems easy to adore, because for the lawmakers, politicians, bankers and architects it represents a congestion of what we were indoctrinated to love: career, money, spectacle, comfort, architecture and being online 24/7. Staying indifferent towards the status quo of urbanization or even accelerating it is a simple task, because it equals ignoring the fact that our mode of life enhances its problematic aspects. In the shadow of career and money, the urbanization of today cannot merely be perceived as a motor accelerating contemporary urban culture. It must be seen as an organism that due to the mode of life of its inhabitants continues to generate enormous emissions here and in territories far away. That extracts more and more resources to make the treadmill aiming for growth to spin. As an organism that due to its constantly growing body generalizes a hierarchization between people within its realm.

1.2 The Megalopolis of Europe

In Europe, there is one single territory highly responding to the criteria of being interconnected urbanized field covering hundreds of kilometers. Theorized by the French geographer Roger Brunet from the late 1980s and onwards, the Megalopolis of Europe distinguishes itself as Europe's metropolis par excellence. Also called the Blue Banana due to its appearance on satellite images taken during the night, the populated crescent



running from Liverpool to Lombardy is characterized by a density in cities and infrastructure. Its birth is inherently linked to the great economic currents that emerged on its territory in the Middle Ages, that successively transformed into capitalism⁷ with the strong push generated by the wealth imported from colonies.

The paths of the merchants uniting northern and southern Europe could have followed other watercourses, for example through the Rhône valley or following the Elbe. But it was neither the wealthy *marseillaises*, *parisiens* or *berliner* who organized the exchanges. It was instead the merchants

⁷It was consequently here that its counterideology emerged through Marx and Engels.

from Venice, Milan and Florence together with the ones from Amsterdam, Antwerp and London who did so.⁸

With industrialization and later on globalization, this territory gradually came to position itself as the economic core of the continent. The ridge is characterized by an extreme concentration of cities, notably in relation to three central parts: England, along the Rhine passing Basel, Ruhr and Rotterdam and in the north of Italy. The result on a territorial scale is a continuously urbanized field unifying the Mediterranean with the North Sea. Brunet continues to describe that the figure has grown so powerful over the years that geographical features as the Alps or the English Channel does not constitute real barriers,⁹ certainly not with the establishment of the infrastructure for high-speed trains and the extensive air-borne traffic.

Visualized in thematic maps in Brunet's publication, we can observe that this region is hosting Europe's highest continuous congestion of activities deeply dependent on capital. The dense presence of multinationals, research centers, congresses, fairs, trade shows and stock exchange are evidence of this. In reading urbanization as a structure allowing the least resistance for capital as possible, it is not remarkable that the crescent also hosts Europe's highest traffic congestion, an elaborated infrastructure is a *condicio sine qua non* for capitalism. This megalopolis occupies 18% of the surface of its continent, rendering the Baltics, the Eastern countries, the Balkans, and the Atlantic coastline as a literal *terra incognita* or *finisterre* due to its relatively low economic concentration and lack of continuity in the urban structure.¹⁰

⁸ Brunet, Roger, Boyer, Jean-Claude, RECLUS red. *Les Villes "européennes": rapport pour la DATAR, Délégation à l'aménagement du territoire et à l'action régionale*. Paris: Documentation française, 1989, p. 14-19.

⁹ Brunet, Roger, Boyer, Jean-Claude, RECLUS red. *Les Villes "européennes": rapport pour la DATAR, Délégation à l'aménagement du territoire et à l'action régionale*. Paris: Documentation française, 1989, p. 14-19.

¹⁰ Ibidem

2 Countermodel

It seems ignorant to blindly continue to celebrate urbanization since it equals an act of indifference and ignorance towards its issues. From now on, indifference vis-à-vis this creation is crime. A project countering this tendency in Europe needs to react to the territory of this urbanized crescent. In the search of a human habitat with a functioning opposed to the one of the infinitely expanding urbanization on the grid, there is an ancient type of settlement that can help theorize a radical possibility for the European Megalopolis. Radical since if its principles would be applied within the urbanized sea, it would shake the fundamental nature of its way of operating. It is time to introduce the tell.

2.1 The Tell

Scattered mainly in present day Middle East, earthy hills rise over the flat, sandy environment. The majority of these hills, called tell in Arabic, are nowadays appearing as abandoned in their landscape. Their truncated conical form can reach up to 50 meters in elevation if the occupation sequence is long enough.¹ Despite looking like natural hills, these formations are constituted of layered villages often dating back to Neolithic and Chalcolithic times. Starting as conventional villages constructed on top of virgin soil, an accumulation of new villages on top of their destroyed antecedent taking place over hundreds or thousands of years have created their form.² The tell is not a singular phenomenon but was a veritable model for settlement construction, demonstrated by the fact that only in the Diyala Governorate in Iraq, more than 800 sites were found in an investigation initiated by the Iraqi government in the 1950s.³ This fact makes the model powerful, since it means that its existence is a non-coincidental evidence of another mode of urban growth.

In overcoming the daily dimension of nutrition through the domestication of crops and animals, different peoples of the Fertile Crescent set up the first permanent base camps around 10,000-7500 BC.⁴ Farming unified people into sedentary communities that rose from around this time. In the shift towards sedentary life, man's dependence on his immediate surrounding increased. In the case of the tell, it is not only the fact that the inhabitants mostly were agriculturalist that

¹ Akkermans, Peter M. M. G, Glenn M. Schwartz. *The archaeology of Syria: from complex hunter-gatherers to early urban societies (c. 16,000-300 BC)*. Cambridge world archaeology. Cambridge, UK; New York: Cambridge University Press, 2003, p. 7

² Ibidem p. 7

³ Matthews, Roger *The archaeology of Mesopotamia: Theories and approaches*, London; New York: Routledge, 2003, p. 50

⁴ Liverani, Mario *The Ancient Near East - History, society and economy*, 2014, p. 35

bound them to the territory but also the pure construction material of their settlements. If the architecture of nomadism was lightweight, the architecture of the villages that constitute the tell became consequently more solid. Its architecture was mainly constructed in a mix of sun-dried mud brick and stone. Except being ubiquitous and having good insulation qualities, the mudbrick of Neolithic times was a perishable material that needed to be protected from humidity by plastering it with mud.⁵ Except building material found in the surroundings, the only thing needed in constructing the village was the work force of the inhabitants themselves.

The superposition was a consequence of different reasons of malfunctioning or destruction of its ancestor. The testimony from a tell in northern Iraq called Tepe Gawra presents numerous reasons of abandonment. Made up by approximately 20 layers of destroyed villages, several of its strata were troubled by heavy fires destroying the settlement and sometimes killing the inhabitants. Another common fate was heavy pollution that occurred due to the presence of decomposing organic matter and human waste within the settlement that resulted in vermin and diseases. Communities may have decided to leave when their settlement became too filthy since the simplest way to control these intimidations was to leave the infected area, which was a drastic solution for sedentary agriculturalists.⁶ The most common reason of destruction happened nonetheless probably due to the relatively poor structural capacity of the sun-dried mud brick, which often was not lasting longer than one or two generations.

Each new village-layer of the tell is superposed on the debris of the old, destroyed village. What becomes the base

⁵ Reade, Julian. *Mesopotamia* London: British Museum Press, 1991, p. 45

⁶ Akkermans, Peter M.M.G, Schwartz, Glenn M. *A changing perspective: Neolithic beginnings in The Archeology of Syria, From Complex Hunter-Gatherers to Early Urban Societies (ca. 16'000-300 BC)* Cambridge: Cambridge University Press, 2003, p. 78

B



Tell Barri in Northern Syria.

for the new settlement is the disintegrated mudbricks but also sometimes the everyday objects of the inhabitants. Due to the act of superposition, the many man-made hills constitute a cross section exposing different types of settlements. This means that there is not a unique organization of the tell as settlement type. Rather, it is characterized by a successive change in its layout. During its 1000 years of active layers, Tepe Gawra shifted from being an entirely domestic and peaceful agricultural village in some layers, to being fortified and containing only religious programs in others. When invasion occurred, the new settlement showed up different characteristics than the previous one. In some layers in Gawra, the architectural characteristics are shared. The temples of these layers were probably constructed when the lower courses of the walls of the previous were still visible above the floors of the new occupation sites, meaning that these levels must have been closely related in culture.⁷

⁷ Tobler, Arthur J. *Excavations at Tepe Gawra Volume 2* Philadelphia: University of Pennsylvania Press, 1950, p. 6

Common for most mounds is that while it slowly rose over the flat land, it progressively distinguished itself from the surrounding. These hills were often not found in immediate proximity to one another, but a certain distance between them safeguarded their form. The houses positioned close to each other make up the elevated village with its clear-cut line between the built, the cultivated land and nature in a pattern with no blurriness between what is settlement and what is unbuilt.

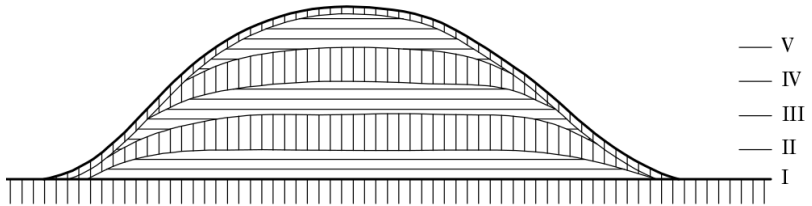
The successive superposition, as we have seen, could result in the final abandonment of the site. But there were also other possible outcomes. It happened that the expanding settlement shifted its occupation from its old center to one of the sides, where it could expand on new ground without increasing the height of the existing mound. It also happened that the settlement simply spread down to the virgin soil layer on the foot of the mound, ⁸ in a structure that would become the modern city. ⁹ This does nevertheless not erase the fact that many of the mounds were abandoned in the landscape, as with the model of the simple tell.

In some of the last layers of Tepe Gawra, the inevitable shrinkage of the top surface was attempted to be halted through the terracing of its upper slopes. This simply led to erosion of its sides, that then needed to be avoided by the builders of the next village. The builders of the very last stratum consequently had a considerably reduced top area that could not fit anything but small shrines. As an alternative to the abandonment of the structure, thinner and thinner layers of dirt was then introduced between the stratum, but it did not prevent the final abandonment of Tepe Gawra in the middle of the second millennium BC. ¹⁰ The usefulness of the tell

⁸ Lloyd, Seton *Mounds of the near east* Edinburgh: Edinburgh University Press, 1963, p. 22

⁹ As with cities as Aleppo in Syria or Erbil in Iraqi Kurdistan.

¹⁰ Speiser, E.A *Excavations at Tepe Gawra* University of Pennsylvania Press Philadelphia 1935, p. 12



The simple tell with its model of growth.

diminished therefore for each successive level. For every new superposition, the buildable surface was reduced in size, which means that horizontal expansion in surface is impossible. What characterizes the tell as settlement is not a specific arrangement of the plan but its peculiar model of growth that more or less implies its own end.

What became then the consequence of population growth during Neolithic times if not expansion of the settlement itself? Unlike in the European Megalopolis, where cities have expanded horizontally into one single field of urbanization, the result was instead the multiplication of the settlement. When the population rose higher than could be sustained from the encompassing soil, the overflow of people needed to leave. A new community was created on a certain distance from the former, as established by V. Gordon Childe.¹¹

It may seem rhetoric to study a human settlement

¹¹ Childe, V. Gordon "The Urban Revolution" in *The Town Planning Review*, Vol 21, 1950, p. 61-79

dating back thousands of years in defining a countermodel, whose reality was extremely distant from what constitutes the reality of the European Megalopolis. Yet, the tell comes across as a structure that implies concepts that can help constitute an antidote to our contemporary reality, where the seemingly infinite expansion on the grid is prevalent. What does this manmade hill imply that becomes helpful in formulating a counterproject of today's architecture, today's project for the urbanized field, today's mode of life?

2.1 Generic and Site-specific Artificiality

Published for the first time in the late 1970s, the essay Sculpture in the Expanded Field by Rosalind Krauss evokes the tendency of placelessness emerging in sculpture during the modern movement. If sculpture before the moderns was defined as a figurative, vertically oriented monument placed on a pedestal that mediated between the object and the site,¹² its modern successor was an abstracted monument as a pure base, functionally placeless. In what she describes as the fetishization of the base, modern sculpture became a nomadic object that reached downward to absorb the pedestal into itself and away from its actual site.¹³ Through the representation of its own materials and process of construction, it became inherently self-referential. This statement is exemplified by the oeuvre Il gallo by Constantin Brancusi, where the whole sculpture itself can be described as a base that easily can move around from gallery to gallery around the world without difficulties.¹⁴

¹² Krauss, Rosalind "Sculpture in the Expanding Field" in *The Anti-Aesthetic: Essays on Post-Modern Culture*. ed. Hal Foster, Port Townsend, Wash: Bay Press, 1983, p. 33

¹³ Ibidem p. 34

¹⁴ Ibidem p. 35

D



Constantin Brancusi's studio with *Il Gallo* and many other base sculptures.

As commonly recognized, the tendency of placelessness existing in the realm of modern sculpture was equally found within modern architecture. Architecture as an objective, universally suitable art did ideally not need to adapt to its context, and did not even seem to need its surroundings. But not even Le Corbusier could wish away topographical reality and developed a method that limited the impact that topography had on his ideal models. In announcing the Cinq points de l'architecture moderne, Le Corbusier brought out the pilotis as an element that would liberate architecture from the inconvenient humidity coming from the ground. Despite its functional justification, one can wonder if the application of the

system of the pilotis did not also have another implication. From Villa Savoye but maybe even more evident in Unité d'Habitation, the ascension of the main volume of the building from the soil decreased drastically the deforming effect that the soil had on architecture. The application of the pilotis seemed to imply an increased decontextualization of the architectural project. Now, the prism or whatever geometrical form could remain intact due to the decreased interaction between itself and the topography. The building would become a model that could be placed on a site without compromising with its actual constraints.¹⁵ It could look more or less the same regardless if placed in Marseille, Nantes-Rezé or Berlin. The the different Unité d'Habitation could not wander around the world like Constantin Brancusi's base-sculptures, but could indeed be reproduced and emplaced anywhere, without a major altering of its conception.

One type of artwork appearing after the era of placelessness that is said to represent its total opposite is land art. Except negating the hegemony of the gallery and consequently art as commodity, land art highlighted the return of the site into the artistic realm through its physical attachment to the territory. The works were dependent on its soil, not only because of the tight physical connection but also since the materials often were found in situ. When these works are perceived as most radical, they often consist of a modification of the site rather than an addition of something alien to it. While there certainly are examples of the opposite,¹⁶ many of these sculptures are constituted by a modification of the soil of the site. In the article by Krauss, the earthworks of this period are described as the combination of architecture and landscape.¹⁷

In 1969, Michael Heizer created Double Negative, an

¹⁵ Rovira Torres, Marcelo *The Middle Way*. www.towardsanarchitecture.com, p. 21

¹⁶ For example the use of plastic fabric by Jeanne Claude and Christo.

¹⁷ Krauss, Rosalind "Sculpture in the Expanding Field" in *The Anti-Aesthetic: Essays on Post-Modern Culture* ed. Hal Foster. (Port Townsend, Wash: Bay Press, 1983), p. 36

extreme example of a sculpture attaining these new criteria, being unimaginable without its physical territory. Located in Nevada, the work consists of a long dike in the earth made through displacing more than 200,000 tons of rock, forming a rectangle 9 meters wide, 15 meters deep and over 400 meters long. In a discussion about the artistic practice of Robert Smithson, Dennis Oppenheim and himself in 1970, Heizer says that his works are not put in a place but that they are that place.¹⁸ This statement seems to correspond to his works modifying their site at the first glance. But it does also simplify the relation between site and oeuvre that is slightly more ambiguous in his practice as well as for land art in general. To claim that the work is the site implies that it is indissociable from it. But what it actually means is that the artwork is embedded to the territory, not that it actually belongs to a specific place. As described by Gilles A. Tiberghien, the work by Heizer penetrates the face of the mountain. It does not use it as content but in it, the sculpture carves out a recognizable image which indicates no specific belonging to the place.¹⁹ Most geographical features important for land art as we know, like a flat desert, a depression in a mountain or a rocky coastline can be found in an abundance of locations. Heizer's work could have been performed at any site with a depression. In the end, human thought is prevailing in the process of placing an artwork. Even in land art, a certain genericness or randomness will influence its form, and raises the doubt if there is anything manmade that is completely reverberates the place as such.

Maybe this reasoning is even better illustrated by the sculpture called Phase: Mother Earth by Nobuo Sekine which marked the beginning of the Japanese-Korean Mono-

¹⁸ Flam, Jack D., *Robert Smithson, the collected writings*. Berkeley: University of California Press, 1996, p. 247

¹⁹ Tiberghien, Gilles A. *Land art*. Paris: Dominique Carré, 2012, p. 96

ha movement. The artists adhering to the movement worked with oeuvres that facilitated encounters between objects and site, influenced by Arte Povera. In 1968, Sekine began to excavate a hole for the artwork at Suma Rikyū Park in Kobe. The soil that was upturned was strengthened with cement and compressed into a cylindrical cast with the exact same dimensions as the hole. After waiting a week for it to dry, Sekine unbind the cast. The result was a brown 2.7-meter cylinder of compressed, stratified earth adjacent to the hole formed by its own absence. Neither the cylinder, nor the hole could exist without one another.²⁰ The cylinder of earth could be emplaced anywhere there was soil, through digging of the earth around it. Inherently dependent on its surrounding, its emplacement is nevertheless completely generic.

The relation between the tell and its surrounding topographical context appears as a fusion of the base sculptures and landart pointed out as opposites in the essay by Krauss. Externally having nothing in common with the notion of placelessness suggested by Brancusi and Le Corbusier, the tell can however be compared to the base sculptures and the pilotis in the sense that it also functioned as an element elongating the distance between the settlement and the flat territory, serving as a protection from flooding and invasion. Precisely like the pilotis lifts up the body of a building and protects it from the influence the damp soil would have on its form, the tell can be perceived as a manmade platform where any architecture can be placed. The probable aim was to attain a surface as flat as possible, even though in reality this was restricted. This entails that any sedentary architecture is unmistakably an artificial modification of the surrounding, no matter if built with local materials of the surrounding or not, that is intended to be

²⁰ Klavins Bernadette “Acts of Revealing: Nobuo Sekine’s Phase Mother Eart” in *Fine Print Magazine* 17, December 2018.



Phase: Mother Earth by Nobuo Sekine

advantageous for human activities. Any sedentary settlement implies consequently a certain degree of artificiality since there always is a reconfiguration of the site innate to this mode of life. Regardless of its artificiality and distancing from the virgin soil layer, the tell as physical structure is deeply rooted to its site due to the use of the surrounding soil in the successive construction of its base. Even if accumulated over millennia and not as a conscious singular act, the tell can here be compared to one of the works of land art in the American desert by Michael Heizer or even more pertinently with the earth cylinder by Sekine, since it also can be interpreted as the working of the site rather than the addition of alien objects onto it. Both the tell and the

artworks are in a way inseparable from their surrounding soil. The tell is however not at all a unique artifact since the soil used for the mud bricks was ubiquitous and permitted the tell to be reproduced at a multitude of sites. Therefore, the condition at stake could be described as a type of generic site specificity.

When decyphering the implications of the manmade hill and its context for a project countering urbanization, we understand that it is not the celebration of something as loose as the spirit of the place that is pertinent to take into consideration. The importance of the place will indeed rise. But not due to subjective claims of uniqueness or beauty in relation to other locations, or in trying to respond to these subjective claims with an architecture reverberating the genius loci of the place. Instead, the influence of the surrounding context will rise because it will be the humans only place, needed for sustenance. This will bring on the valorization but also the exploitation of the specific or more probably the omnipresent material of that site. The genericness lies in that there will not really be a broad choice in materials available. Neighboring structures will have similar physical appearances. When seeing the surrounding context as what will sustain humans, the notion of the generic and site-specific artificiality will be inevitable.

2.4 Limited Form

In 1903, Georg Simmel elaborated his view on the links between space and sociology in two articles. In one of the articles, The Sociology of Space, he presents what he considers its five basic properties. Simmel acknowledges that space is subdivided for social purposes and framed in boundaries, comparing its significance to a social group with its significance for a work of art. As the frame of a painting distinguishes it from the outside,

it proclaims that within its limits a world exists that is subject to its own proper rules rather than the ones of the exterior. The framework symbolizes the self-referential character of its existence at the same time as it accelerates its reality and impressions within itself.²¹ In the same way, a society that is ruled by its sharp boundaries is directed towards its internal functioning rather than its relation to the outside. Simmel presents an example of this tendency with mountainous regions, that due to the natural borders of its territory over time have created an attachment to the area, but also conservativeness. In contrast to natural boundaries, the social boundary is not a spatial reality with consequences on the sociological. Contrarily, it is a sociological reality with consequences on the spatial.²² Understanding the functioning of the social border highlights that the act of delimiting an area is an expression of the strong ideological consensus of a place.

The Medieval city with its emblematic stone wall is a well-known reference of an enclosed habitat that often is said to be a result of the conflictual character of the period, where the wall served as a protective element towards the threats coming from the outside. In the 1961 book The City in History: Its Origins, Its Transformations and Its Prospects, Lewis Mumford puts forward the act of delimiting space through another perspective. Even though it progressively came to serve as a defense mechanism against physical threats as war grew more prevailing, the act of enclosing an area with a wall was according to Mumford in the dawn of sedentary life and forward not merely done for defensive reasons. Instead, it was often the result of the marking of the sacred limits of the settlement. Mumford exemplifies this with the Greek temenos.

²¹ Simmel, Georg "Soziologie des Raumes" in *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich* Gustav Schmoller, ed., Leipzig: Band, 1903, p. 27-71

²² Ibidem

As a sacred area whose wall, the peribolos, was thought of as an element keeping away evil spirits, the temenos was obliged to give refuge and became instrumental in times of conflict.²³

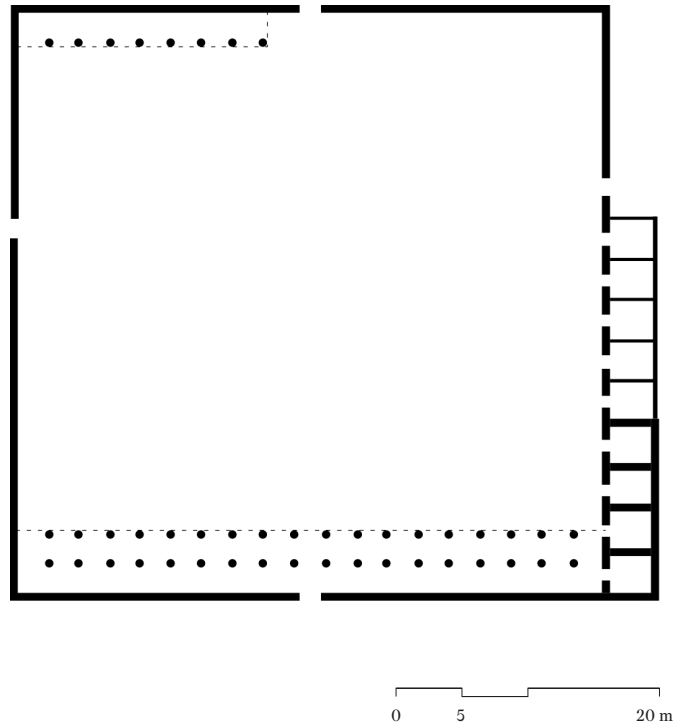
Another example of a limited form connected to a strong consensus is the first mosque. As highlighted by Hamed Khosravi in the article Camp of Faith: The Political Theology of the Islamic City there is no specific religious function inherent to the mosque according to the Quran. Instead, Khosravi continues, it was rather a physical expression of the concept of ummah, which describes the community of the faithful towards Islam and the prophet Muhammed. The earliest embodiment of this idea was the first mosque, also known as the house of the Prophet himself. After a war-torn period, he settled in Medina with a group of people loyal to the new faith in 622 AD. He ordered then the construction of a square structure formed by a 3.2 meters high wall. On the inside, a roof structure was built to shade the praying people and was extended when the orientation of prayer changed from Jerusalem to Mecca. On one of the sides of the square, dwelling rooms were successively erected. The wall delimiting the inside from the outside served here as a structure defining the edges of an edifice that only the faithful could enter, shared between the Prophet and his community. It served in marking the territory dedicated to the community of the faithful.²⁴

The limited form has also implications on a territorial scale. The spatial model developed by Johann Heinrich von Thünen describes the ideal relationship between the costs of transportation of commodity and its location of production. The von Thünen Model was developed between 1825-1850 by the German economist and landowner who saw the economy

²³ Mumford, Lewis. *The City in History: Its Origins, Its Transformations, and Its Prospects*. San Diego New York London: Harcourt, Inc, 1989, p. 36

²⁴ Khosravi, Hamed "Camp of Faith: The Political Theology of the Islamic City" in *The City as a Project*, ed. Pier Vittorio Aureli, p. 70-100

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The Prophet's House in Medina

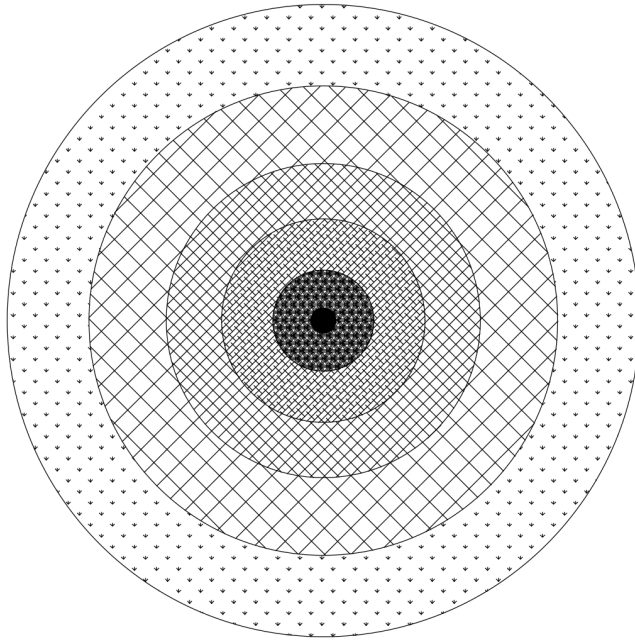
of preindustrial territories as something that was shaped by the more or less profitable, transportable or perishable quality of food, fibers and energy necessary for the sustenance of the central city where they were to be concentrated. The model was projected on a uniform territory devoid of problematic topography, watercourses and roads, rarely corresponding to the situation of real regions even of his time. By using mathematics to demonstrate methods of maximizing agricultural production, von Thünen presented a concentric model where heavy products would be produced close to the city. Lighter and more durable goods could be produced in the

last ring before the wilderness.²⁵ Albeit being a liberal model of agricultural production totally focalized on economy, the model of von Thünen describes a habitat characterized by a non-complexity in relations between city, territory and neighboring cities, something that was successively destroyed with the rise of urbanization. The city in von Thünen's model did not claim any lands far away but was an isolated state that only needed its immediate surrounding territory for agricultural production. In an autarkic model, the rings concentrically emplaced around the city helped spatialize its footprint and therefore also its limit towards the wilderness.

The limited form for the territory as explicitly political was theorized in the research project Stop City by Dogma in 2007. In an essay published together with the project, the authors declare it a counterproject vis-à-vis the Neoliberal urbanization of laissez-faire and deregulation. In what one can presage as the very apotheosis of the genealogy of the island as project for the territory,²⁶ the categorical aim of Stop City is to establish blockages to the endless growth of urbanization. The design is an example of a prototypical settlement that can create a communitarian life through separation rather than based on a fake inclusiveness. The city is confined to a dense and limited form of slabs of 500 by 500 meters, allegedly housing 500.000 people. Forming a square towards the surrounding, the aim is to break the taboo of talking about the form of the city, which according to the authors actually not only means its

²⁵ Frambach, Hans. "Johann Heinrich von Thünen: A Founder of Modern Economics" in *Handbook of the history of economic thought: insights on the founders of modern economics. The European heritage in economics and the social sciences*. red. Backhaus, Jürgen G., New York: Springer, 2012, p. 306

²⁶ Stop City seems to precede the study of concrete utopias by Liselotte and Oswald Mathias Ungers in the USA. These "concrete utopias" were possible precisely because they were conceived as limited in terms of space and number of inhabitants. See: Aureli, Pier Vittorio. *The possibility of an absolute architecture*. Cambridge, Mass.: MIT Press, 2011. p. 199



City
 Garden
 Fuelwood
 Farming
 Grains
 Ranching

The von Thünen Model

form but also its limit.²⁷ As clearly visible in the photomontages of the project, there is an obvious gain in confining the city to a dense and limited form of slabs. In halting the sea of urbanization, the empty space in the middle is safeguarded.

The ancient lands of Mesopotamia can be compared to a vast, flat surface punctuated by the pattern of the inhabited man-made hills. Rising as truncated cones over the territory, the tell is morphologically separating itself from its surroundings. When the flatlands of this region were flooded, the hills could be perceived as islands ascending over its sea. The image of

²⁷ The research project has only been published on the internet. Retrieved from www.Socks-studio.com

the limited form of the tell is evoked since its appearance is linked to its internal functioning as well as its relationship with the surrounding territory. As the limited forms of Simmel's habitat within the social boundary, the mosque and the temenos are the result of a strong consensus, a strong consensus must also have reigned within the tell. It is not even so necessary to define if its limited form was the result of the already existing consensus of the community or if the consensus developed when living together inside of the settlement, as was the case for communities within mountainous regions. Even though traces have been found testifying for the presence of asymmetric power relationships between inhabitants of the tells,²⁸ the small-scale society with a clear border towards the surrounding witnesses about a strong community cohesion.

Regarding its relation to the territory, the hill and the cultivated area surrounding it can be perceived as a spatial index of the amount of people that could live through the resources of the aforementioned land. Even though traces of trade have been established in several mounds through archaeological excavations, these societies were primarily autarkic. Similar to the von Thünen model and Stop City, the surface of the settlement and its cultivated land was a footprint of a comprehensive city-state, devoid of complex relations with the outside territory.

2.3 Decisive Debris

In 1969, Archizoom published a series of photomontages in Domus titled Discorsi per immagini, focalizing on the city and the territory. Influenced by the thoughts of Italian Marxist

²⁸ Notably the occasional existence of temples have lead archealogist to this conclusion. For more on temples during Neolithic times, see Mumford, Lewis. *The City in History: Its Origins, Its Transformations, and Its Prospects*. San Diego New York London: Harcourt, Inc, 1989, p. 70-72



Colline de Riporto Su Città di Pianura

theoreticians of the time as Tronti, Dal Co and Tafuri, Archizoom had now turned away from the figurative and eclectic narration that until then had formed their discourse of possible resistance to imperialism. Tronti and the others announced a rejection of all avant-gardism and representation of utopia even when coming from the very left. For them, this method has become a bourgeois ideological vice. It misguided the Marxists from what should be their veritable activity, which was the understanding and critiquing of the mechanisms supporting the contemporary capitalist society. Instead, Archizooms' new aim was to render visible the dialectics of problematic societal

phenomena.²⁹ One of the photomontages, Colline de Riporto Su Città di Pianura, portraits fifteen conical hills on an aerial photography of the continuous single family-house tissue of a New York suburb. The mounds were a metaphor of the accumulation of commodities happening through the increasing mass consumption, pushed to the point of defining the suburban landscape with their form. When emplacing the accumulated garbage in piles in the middle of the villa tissue, the group aimed at making visible this unsustainable phenomenon.³⁰ The photomontage is a protest against how the territory had adapted following the logics of capitalism. Pollution and waste from deployed objects are transported far away in a situation where people do not reflect upon the amount of waste produced as a consequence of their behavior. To emplace the fifteen hills of waste in the periphery renders the exaggerated habits of consumption and treatment of waste visual in confronting it with the commonplace habitat of the middle class. The hills of Archizoom appear as useless chunks of nothingness disturbing their environment, although probably containing plenty of valuable resources.

In the autumn of 1944, the catholic chapel Notre-Dame-du-Haut on the hill of Bourlémont in Haute-Saône was bombed by the German army. The hill had been the site of several religious edifices from Roman times and forward, but the life of the destroyed structure had been short. It had been rebuilt on top of the foundations of a structure dating back to the 19th century that in turn had been struck by a lightning in 1913.³¹ The initial plan to restore the collapsed building was canceled by the development company due to the high cost of such an

²⁹ Gargiani, Roberto, *Archizoom associati, 1966-1974: de la vague pop à la surface neutre*. Milano; Lausanne: Mondadori Electa; Ecole polytechnique fédérale de Lausanne, 2007 p. 131-134

³⁰ Ibidem p. 150-152

³¹ Pauly, Danièle, *Le Corbusier: The Chapel at Ronchamp*. Basel: Birkhäuser, 2008, p. 50

operation. In opting for a new construction, the board consisting of parishioners managed to convince Le Corbusier to take on the project.

When Le Corbusier visited the hill in Ronchamp to initiate the design phase in 1950, the ruins of the former chapel were dominating the impression of the site. The overall construction principles for the finalized project were based on the observations of the architect from his very first visit, that at the time was difficultly reached due to poor infrastructure. At the badly connected site, the existing stones of the ruins needed to be incorporated within the construction. They were judged suitable for filling and not for loadbearing purposes of the main body, due to its rather weak structural capacities after have been cracked by frost and calcined by fire.³² Le Corbusier's final choice of sand and cement to form the main body of the building seemed to be dictated by the features of the site rather than only for its possible plasticity.

The chapel is made up by a frame of reinforced concrete columns carrying the emblematic roof. The fill-in of the west, east and north walls was performed with the stones recovered from the antecient structure, while they could not be used for the south wall with its many openings. The same stones could be employed for the base of the three towers, structurally independent from the main body. Finally, concrete was sprayed on exterior and interior walls and was then whitewashed.³³

In 2001, an essay authored by Koolhaas by the name of Junkspace appeared in the Harvard Design School Guide to Shopping, polemically claiming that the built consequence of modernization is not modern architecture but its residue, what he calls Junkspace. Throughout the article, Koolhaas highlights Junkspace as a datum that does not pretend to create perfection,

³² Pauly, Danièle, *Le Corbusier: The Chapel at Ronchamp*. Basel: Birkhäuser, 2008, p. 50

³³ Ibidem p. 82

only interest, that possesses no form but only a potential proliferation, whose essence is continuity in exploiting any invention that enables expansion.³⁴ The interdependency of modern and contemporary architecture with its junkspace is undeniable: its fiberoptic cables and pipes hidden inside of the walls, elevator shafts, masked heating systems, suspended ceilings covering all types of unidentified electronical components.

When reexamining the tell, we find a mix of the notions highlighted through the references above. The people returned to the debris of the abandoned villages probably because of its advantageous aspects as well as their bond to the site if they had lived there before. As mentioned, due to the act of superposition, there is not a unique organization of it in plan, but rather a successive change in its layout. What is radical here is not that important axes or building emplacements persist, but the that the form of the new settlement is totally dependent on the debris of its antecedent. It is the combination of the destructed stone foundations covered in the disintegrated mudbricks that create the foundation of the new settlement, permitting the vertical development of the structure. Literally the whole new village is dependent on the debris and becomes accordingly operational in defining where and in what form the new settlement should be, rather than with which aesthetic.

If the photomontage by Archizoom evokes that waste produced need to be reexamined and not left on the territory as with the garbage hills, it is exactly what is at stake in the tell. The relation between inhabited settlement and debris lays on an intrinsic level and surpasses many contemporary attempts of eco-friendliness. The structure simply looks like a natural

³⁴ Koolhaas, Rem. *Junkspace: repenser radicalement l'espace urbain*. Paris: Payot & Rivages, 2011.

hill perfected with a village on its top. It hides its relation to debris just as Notre-Dame-du-Haut. Today, plentiful of architects proudly integrate everything from empty soda cans to recuperated window frames in their projects, resulting in a superficial bricolage never guaranteeing any local dimension of the material. Within the urbanized realm, architects have a good conscience when declaring that their project contains recycled plastic, even if it has frequented three different nations to be functional. All this is made possible by the grid as interconnector, so pervasive that it has been taken for granted for centuries. Le Corbusier decided to employ the debris of the bombed chapel in his new conception precisely due to the remoteness of its site that did not leave a more simple solution than to use the existing. It is clearly the network that has helped to engender this situation where debris is accumulated on the territory as futile mountains.

As deployed building parts are decisive in giving the tell its form, the notion of debris becomes even obsolete and needs to be replaced by the notion of resources. When Koolhaas pinpoints that almost everything is junk as a result of the formless spread of modern architecture, it can then be interpreted as everything becoming a resource. Not only destroyed Neo-Gothic chapels as in the case of Le Corbusier, but everything produced in the wake of Modernity needs to be reconsidered. An attentive attitude needs to emerge vis-à-vis all the residue. Inside of the settlement countering the ever-expanding urbanization, the existing debris will therefore become inherently decisive for its continuation.

The tell obtained its placement from the debris. So will also be the case with the settlement countering urbanization. It must not find its place in rural situations, but where built resources already proliferate. For example, within the realms filled with junkspace inside the Megalopolis of Europe.

2.5 Degressive Form

The word ‘centripetal’ comes from the Latin *centrum* meaning center and *petere*, meaning ‘to seek’. The centripetal force is by Isaac Newton described as “a force by which bodies are drawn or impelled, or in any way tend, towards a point as to a center”. It is thus a force that makes a body follow a curved path with a direction always orthogonal to the motion of the body and towards the fixed point of the transitory center of the curvature of the path.³⁵

As the centripetal force, the ziggurat is a built form that evolves towards the center of its body in a logic where each added volume is smaller than its antecedent. Through platforms or steps, it recedes from the bottom up, theoretically endlessly and in practice until the top platform is considered small enough. Just as the centripetal force and the ziggurat are guided by a force that is pulling an object towards its center, the logic of conical spirals works in a similar way. The curve on a plane winds around a fixed center point at a continuously decreasing distance to the point. Even though none of these structures were anything but humble for their time and place, the expansion possible through these forms is always smaller than its base footprint. In terms of growth innate to its functioning, these structures would therefore not be able to develop infinitely. Also taking the perishable character of the mudbrick or the limited construction methods of the time into consideration, these structures embodied a limited growth. Through the invention of the elevator, the steel frame and finally the tubular system, the ultimate symbol for the metropolitan condition has disturbingly enough been able to adopt the logic of the degressive form. The design of the skyscraper Burj Khalifa is said to be inspired by the minaret Malwiya

³⁵ Newton, Isaac. *The Principia: Mathematical Principles of Natural Philosophy*. Place of publication not identified: Snowball Pub., 2010, p. 10

Tower of the Great Mosque of Samarra, made up by conical spiral. The Dubai high-rise holds the record as the tallest construction in the world with its 843 meters. From the base up, the tripod-shaped structure recedes in a pattern where the nose of the tier above sits on the cross-walls on the tier below, a key component in the structural design of the tower.³⁶

The constantly diminishing top surface of the tell was an effect of the choice of returning to the occupied site and constructing the new settlement with the poorly resistant sun-dried mud brick on top of its debris. Over the course of time the hill was shaped into a truncated cone, a form resembling the result when turning a bucket of sand upside-down, or an abstracted ziggurat. Even though it was only the top layer of the tell that was inhabited, while all platforms of the ziggurat were used and also constructed at once, their formal logic of expansion is similar.

As established through archaeological excavations at Tepe Gawra, the inevitable shrinkage of the surface was tried to be halted in different ways. These efforts resulted most of the time in land slide.³⁷ Even though some of the tell are still inhabited,³⁸ the majority of them are left abandoned, since a long time becoming a part of the landscape. Most communities finally decided to leave their hill, instead searching to settle somewhere else.

The aim when bringing up this point is not to romanticize the abandonment of a settlement per se. Instead, what deserves to be highlighted is the consequences on human life that the formal logic implicates. The fact that the shrinkage is embedded to its model of growth makes the hill with its functioning appear

³⁶ Baker, F. William, Pawlikowski J. James *Higher and Higher: The Evolution of the Buttressed Core* in Civil Engineering October 2012, p. 58-65

³⁷ Speiser, E.A *Excavations at Tepe Gawra Vol. 1* University of Pennsylvania Press Philadelphia 1935 p. 12

³⁸ The UNESCO World Heritage Citadel of Erbil in Iraqi Kurdistan is a tell that until recently was inhabited. See <https://whc.unesco.org/en/list/1437/>

like the very opposite of the horizontal growth of urbanization on the grid. The ever-augmenting scarcity of surface constituted a common intimidation of the community, that needed to be coped with in the longer run. The shrinking surface can be read as a circumstance that generated an internal organization among the people of the settlement. The formal logic of the degressive form implied a successive optimization of the site and the constant adaptation to its changing physical characteristics. As the centripetal force is directed towards its own center, it was also the case of the successive reorganization of the tell.

The degressive mode of expansion of the tell as well as the mode of life it generated appears as radical vis-à-vis the European Megalopolis, where proliferation of capital-intensive technological solutions has permitted the urbanized field to be extended to any site. Negating its qualities of generating a human settlement countering urbanization, the degressive form can now be rendered seemingly infinite through skyscrapers, increasing in height for every new decade. To keep the degressive form valid today as an architecture that contributes to an internal reorganization rather than an easy, horizontal spread, restrictions need to be imposed in applying its logic.

2.5 Territorial Equilibrium

During Neolithic times, the *modus operandi* of settlement management was duplication of the village rather than extension of the existing one. When inhabitants became too numerous, either when the tell still was operational or when its capacity was deployed, the inhabitants searched for a new emplacement for their village.³⁹ By theorizing the

³⁹ Childe, V. Gordon *The Urban Revolution* in *The Town Planning Review*, Vol 21, 1950, p. 61-79



Law of Multitude by Kishio Suga

tell's significance on its surrounding, it appears as relevant to visualize the habitat as something that is repeated.

Constituting a merge between the often-separated categories architecture, topography and also debris, the tell engenders a particular effect on the territory. The sculpture Law of Multitude by Kishio Suga illustrates this peculiar functioning quite well. The oeuvre consists of a transparent, plastic sheet with a span of a medium sized room. The plastic sheet is lifted from the floor of the room since it is placed above numerous pediments in concrete, that together with stones are holding the plastic sheet in place. In reading the sculpture together with the mechanism of the tell, the plastic sheet can be compared

to the territory. The concrete pedestals can be compared to the pulverized villages and the stone to the settlement on the very top of the hill. Since the footprint of the elevated foundation is respected in reconstructing the village, the settlement is prevented from spreading over the territory. Along with that the upper surface slowly diminishes in size, the inhabitants need to reorganize their living to the changing characteristics of their settlement. It cannot really be extended outwards since in doing so, the territory would be imbalanced, the plastic sheet would fall to the floor and displace all the other stones. By exploiting the immediately surrounding land and no more, a stable archipelago of inhabited hills separated by a certain distance is created. The work by Suga illustrates the territorial equilibrium that numerous of tells could accomplish together.

The plastic sheet in the sculpture is as crucial and prevailing as the wilderness around the tell. It was the source of building material, agricultural production and critical in defining the limited form. When arguing for the bounded settlement, what exists outside its limit becomes implicitly highlighted. Without the space devoid of architecture, the limited form cannot exist.

3 Reality Zoom In

Within the dense megalopolis, there is one particular territory that historically and until today appears as a pure embodiment of this infinite expansion inherent to urbanization. Situated in the very center of the populous crecent, the Netherlands seems like a country whose territory reflects this thirst for infinite growth in three ways, making it the quintessential antithesis of the tell.

3.1 The Polder as Colonizer

The fact that 24 % of the soil of the Netherlands is situated under the level of the sea testifies for the major interventions that has been made to expand and interconnect its land through the transformation of water into dry terrain. These interventions have left a powerful mark on the modified territory in the form of a grid, that became the tool for colonizing nature in accelerating economic profit and metropolitan spread. An intervention on nature, the polder is a spatial form separated from its surroundings with its own artificially regulated water management, often through a canal and a dike. If no technical measures were taken within the polder, water from adjacent higher areas would drain in and build up a marshland or a lake over its land.¹ To create a polder means to transform a natural, wet environment into a constructible and dry soil. It is a process that colonises and commodifies nature for the sake of expansion of agricultural land or human settlements. Notwithstanding its strong visual impact from above, the limits of the polder appears as rather invisible in the landscape, camouflaging itself against its surroundings.

Before the dawn of the Industrial revolution, the Dutch lowlands were mainly a difficultly inhabitable region of wetlands where the power of water and wind had unrestricted influence on people's lives. The inhabitants dealt with the humid environment by accepting the existing situation and adapting their mode of life to its rules, in a situation where weather and climate dominated over the culture of humans. During this era that was mainly a boat-culture, every farmer was also a shipper. The sole means of protection from the force of the water was

¹Steenbergen, Clemens, Bobbink, Inge M., Heuvel, Bert van den, Wit, Saskia de. *The Polder Atlas of The Netherlands: Pantheon of the Low Countries*. Bussum: THOTH Publishers, 2009. p.25

different types of drainage ditches allowing crops to grow in the fields.² The era called the amphibious culture corresponded approximately with the first stage in history of urban design in the Netherlands, (1500-1800), where urbanization started to lead to concepts like capitalism and national states.³ As the Netherlands advanced its position as a wealthy colonial power, sustained by a seemingly unlimited flow of merchandise, the Dutch could afford to colonize their own natural land.⁴

From the end of the 19th century, amphibious culture was replaced by modern culture through an increasingly considerate water management. Land culture would come to dominate, exemplified by the successive construction of mainland infrastructure. Land reclamation became a way to fight the wet environment, with projects increasing in scale with the progressive establishment of the modern era. The windmill that was the first mechanical tool to pump out water from wet surrounding was first replaced by the steam engine, later the combustion engine run by diesel and petrol and lastly by electrical pumping.⁵

Hand in hand with modern culture, the idea of *maakbaarheid* grew steadily into a concept that came to characterize the interventions on nature initiated by the government. Translated to 'manufacturability' or the idea that humans can make everything possible, the concept of *maakbaarheid* came to direct megaprojects all over the country.⁶ The drainage of the lake of Haarlemmermeer southwest of Amsterdam in 1848 was such a project. Coordinated on state level, the intentions

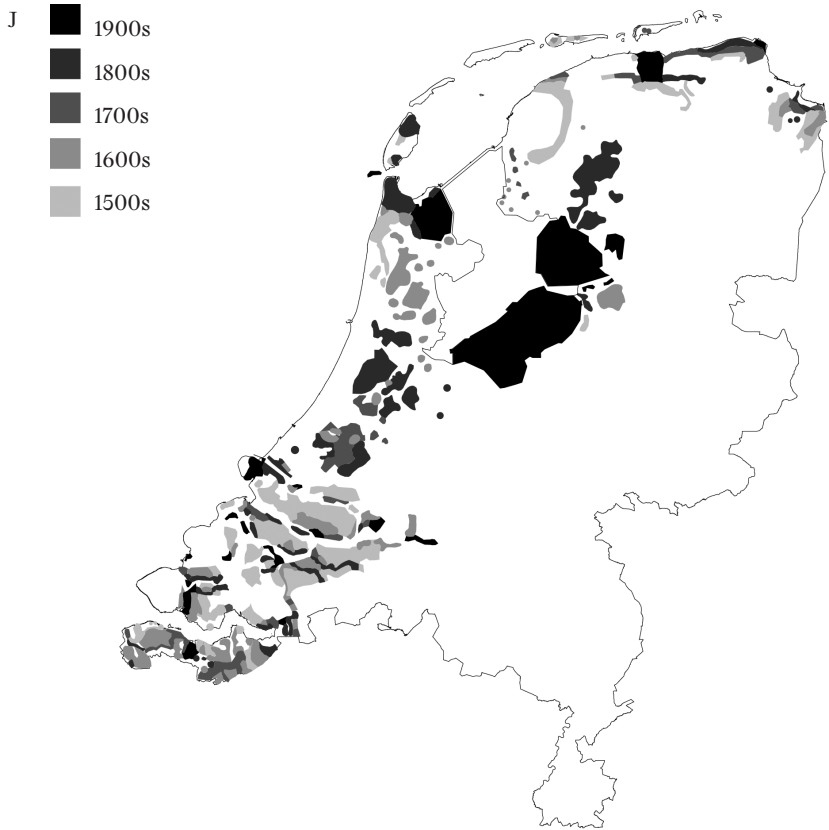
² Hooimeijer, Fransje. *The making of Polder cities: a fine Dutch tradition*. Heyningen: JapSam Books, 2014.

³ Ibidem, p. 13

⁴ Woud, Auke van der "Form and Identity of the Randstad in Zodiac" in *Rivista internazionale di architettura*. no. 18, 1998, p. 21-22

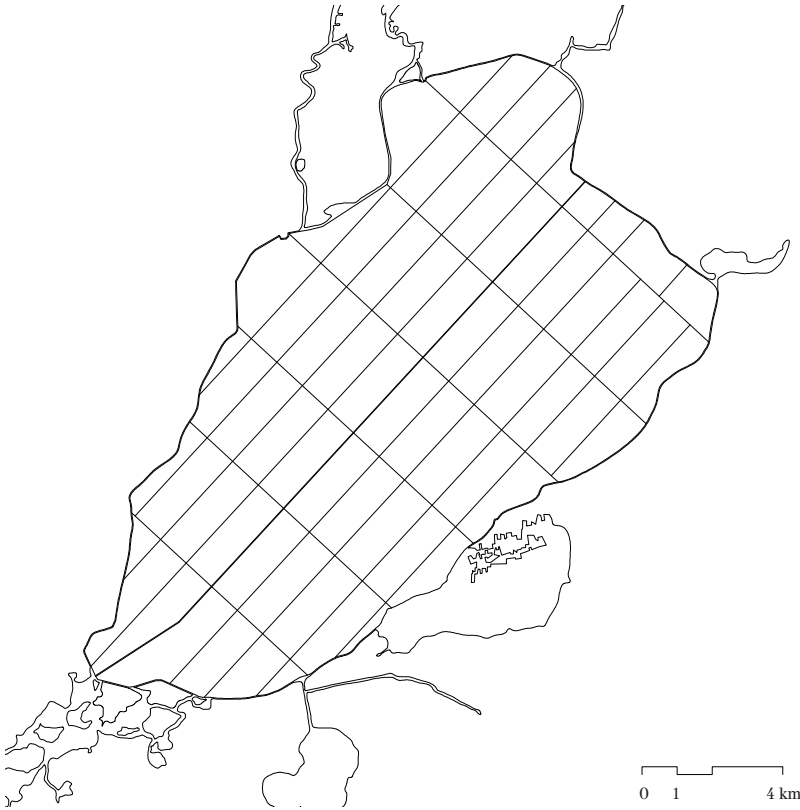
⁵ Hooimeijer, Fransje. *The making of Polder cities: a fine Dutch tradition*. Heyningen: JapSam Books, 2014, p. 12

⁶ Ibidem, p. 105



Polders in the Netherlands classified by their construction year

consequently corresponded with the economic politics of the king at the time that favored an intensification of trade, industry and agriculture. The idea of draining the lake was formulated already in the 16th and 17th century as a reaction to its dangerous character during storms, but the reason for draining it changed with *maakbaarheid*. It was now seen as an opportunity to speculate on land, in what can be seen as a colony at home. The geometrical division of land engendered here, as in all polders, that natural soil devoid of economic value was transformed into an empty plane. Any project aiming at profit could be projected on its soil, often resulting in the extension of the urban structure and the characteristic monocultural



Haarlemmermeerpolder with its primary road and canal grid. Ca. 1900

fields.⁷ Because of its location close to Amsterdam, the Haarlemmermeerpolder was from its very first time a prospective urban landscape awaiting development.⁸ Notably, it would host the sprawl of Amsterdam with Europe's third busiest airport, Schiphol.

During the 19th century, the placement of the polder was based on the contour of the lake or swamp that was to be drained. This would come to change during the 20th century.

⁷ Steenbergen, Clemens M., et al. *The Polder Atlas of The Netherlands: Pantheon of the Low Lands*. Bussum: THOTH Publishers, 2009, p. 392

⁸ Ibidem p. 399



Towns and fields on the Haarlemmermeerpolder. Schiphol in the lower right corner.

Now, the ideal location of planned city expansions became increasingly important, in a situation where the existing soil and water systems were investigated after the localization of the site, since any site through technical interventions could be transformed into buildable land. Weak soils were strengthened in adding a layer of sand called hydraulic filling. This possibility decreased the incentive for the planners and architects to take the actual soil into consideration, since all soil now could be made homogeneous.⁹

If the Haarlemmermeerpolder is an example of a polder

⁹ Hooimeijer, Fransje. *The making of Polder cities: a fine Dutch tradition*. Heyningen: JapSam Books, 2014, p. 105

whose emplacement is based on the natural contour of the drained lake, the Flevopolder is a polder whose location was decided independently from the state of the soil.¹⁰ The area that would constitute its land was detected within the water of the IJsselmeer, an inland bay artificially closed off from the North Sea. The area of the South Flevopolder was not uniquely seen as a soil for agrarian purposes, but as a part of an agglomeration judged as increasingly scarce in constructible space. Half of the soil was made to host urban programs, in particular residential areas and recreational space forming a new city called Almere. Still being the largest artificial island in the world with its 970 km², almost more than ten times bigger than the rest of the islands in the ranking, it was one of the last state-run polder projects. Providing a new constructible soil in proximity to Amsterdam,¹¹ the Flevopolder appears as the quintessential example of land reclamation independent from topographical reality, whose form no longer is a result of the preexisting contours.

The result after more than 600 years of construction of the landscape is a region almost devoid of nature where the amount of constructible land successively has grown. The technical form of the man-made landscape appeared from the confrontation between nature and the grid applied in processes of claiming it for agrarian purposes.¹² Everything from clay polders, sea polders, lake-bed polders to river polders have contributed to create an interconnected realm. With the help of the grid as structuring figure, the Dutch civil engineers and land surveyors have not only managed to stabilize wet nature into profitable agricultural soil in a tabula rasa of nature, but also created a completely man-made land expansion in transforming

¹⁰ Steenbergen, Clemens M, et al., *The Polder Atlas of The Netherlands: Pantheon of the Low Lands*. Bussum: THOTH Publishers, 2009, p. 510

¹¹ Ibidem p. 510

¹² Ibid. p. 20

water into land. The intention is not to critique artificiality per se, but rather the large-scale horizontal expansion leading to increased complexity and interdependencies in a chaotic metropolitan condition.

The etymology of the Dutch word for agriculture, *landbouw*, is telling in describing the interventions made on the territory. *Land* in Dutch has the same meaning as in English, while *bouw* is derived from *bouwen*, meaning culture but also construction and growth.¹³ This gives the possibility of interpreting its signification as ‘construction of land’, which underlines the tight relationship between the poldering of nature and agriculture.

3.2 Quantity over Self-Sufficiency

The rectangular, monocultural fields of the Netherlands are a product of the act of poldering nature. Their forms are the result of the aim of increased output in the agricultural sector. The fact that the Netherlands is the world’s second exporter of agricultural products after the United States¹⁴ is an evidence of how deeply the goal of exponential growth of yields is rooted.

While agricultural surplus was rather small during medieval times, this would change with the beginning of the Golden Age, an epoch in the Netherlands with unprecedented growth. Resulting in a flourishing culture and trade, sustained by colonies far away, the era culminated in the wealth of the city of Amsterdam, where also farming went through a substantial transformation.¹⁵ With the dawn of the Industrial

¹³ Wiktionary 2018, “Landbouw”. Retrived from <https://en.wiktionary.org/wiki/landbouw>.

¹⁴ Wageningen University & Research statistics of the Netherlands, November and December 2017 estimates. See <https://www.government.nl/latest/news/2018/01/19/agricultural-exports-worth-nearly-€92-billion-in-2017>

¹⁵ Bieleman, Jan. *Five Centuries of Farming: A Short History of Dutch Agriculture, 1500-2000*. Wageningen: Wageningen Academic Publishers, 2010, p. 23

revolution, population and trade increased to the point that the commodification of agricultural crops became a reality that farmers had to face.

After the World War II, the Netherlands started to reconstruct the damages that it had suffered, for example in draining inundated farmland and introducing a shift from land-saving technologies into labor-saving technologies. From now on, the government policy on agriculture and agro-scientific research was completely focalized on the aim of attaining an increase in labor productivity in order to reduce costs on wages and still be able to increase surplus.¹⁶ Before the war, most Dutch farms were producing various crops. This would successively be put in attention by authorities because of the aim of increasing yields on a national scale. Through different subsidies, policies and recommendations, the government stimulated mechanization, intensification, specialization, rationalization and up-scaling of the agricultural activities, that by now had become a veritable industry on the scale of the continent.¹⁷

A concrete example of agriculture or *landbouw* as the construction of land was the establishment of the 1958 Meerjarenplan voor ruilkaveling,¹⁸ a plan elaborated by the authorities that explicitly targeted to enlarge the activities of each farm that drastically would transform the territory into a completely functionalist landscape. This was made through initiating subsidies, financing infrastructural projects improving accessibility of farmland and restructuring of size and form of plots. The latter activity intended to adapt the fields to the mechanization. Through the growing application of the tractor, the combine harvester, synthetic fertilizers, nitrogen,

¹⁶ Bieleman, Jan. *Five Centuries of Farming: A Short History of Dutch Agriculture, 1500-2000*. Wageningen: Wageningen Academic Publishers, 2010, p. 23 p. 241

¹⁷ Ibidem p. 245

¹⁸ Translated in English to 'long-term program for land consolidation'.



Westland from above. Outskirts of The Hague in the upper right corner.

insecticides and herbicides,¹⁹ the fields were transformed into labor-less planes of monoculture. Between 1924 and 1985 the Land Consolidation Act had finished 452 projects covering 1,5 million hectares, making up about 75% of all agricultural land in the country.²⁰

Greenhouses existed in the Netherlands before the rise of rationalization imposed by the authorities but boomed completely due to the change from small-scale retailers to large supermarkets that happened in Europe from the 1960s and

¹⁹ Bieleman, Jan. *Five Centuries of Farming: A Short History of Dutch Agriculture, 1500-2000*. Wageningen: Wageningen Academic Publishers, 2010, p. 241

²⁰ Ibidem p. 244

onwards. This would make it the most profitable sector in Dutch agriculture and horticulture as a whole. Germany was a leading export destination from the 1950s and was followed by France, England and Switzerland. From its unfavorable reputation in the 1980s where Dutch tomatoes were nicknamed *wasserbomben* in Germany and German exportation therefore was significantly reduced, the industry recovered from the 90s and forward.²¹ The Dutch-produced vegetables as tomato, lettuce and cucumber developed into being year-round, ²² inherently changing the pattern of consumption into transforming humans into consuming regardless of season.

Maybe the most striking evidence of the dominance of greenhouses throughout the territory is the district of Westland situated southwest of The Hague, nicknamed *De Glazen Stad*. Visible on satellite images from distances as far as 100 km from the surface of earth, Westland is today a region almost fully covered by greenhouses sustained through capital-intensive technologies rather than labor. After the land consolidation program was finished in the district in 1972, trucks could reach all parcels of land within the region, compared to that 40 % of the greenhouses were accessible by boat or by foot in 1958. From being semi-open in the 19th century, the contemporary greenhouses of Westland are now completely closed off systems. To create a Mediterranean heat with a 24/7 sunshine in a temperate climate implies the domination of a *modus vivendi* that refuses to follow the rhythm of the capacities of the existing territory.

As a symbol of megalomania through energy-waste and globalization, the Dutch-grown products end up in homes all over the world. With the massive enlargement of

²¹ Bieleman, Jan. *Five Centuries of Farming: A Short History of Dutch Agriculture, 1500-2000*. Wageningen: Wageningen Academic Publishers, 2010, p. 300

²² *Ibidem* p. 296

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Greenhouses in the outskirts of Westland

the greenhouse industry, the Netherlands has doubtlessly become the home for automated agriculture focalized on the demands of the international market. Through closed energy consuming systems controlled by computers, yields are boosted in a country where self-sufficiency and biodiversity seem like forgotten concepts. The repetitive schemes of the greenhouses create interiors appearing as the very materialization of No-Stop City or Junkspace, offering full control of heating, irrigation and air movement where crops grow in buckets on concrete foundations. Due to their dependence on the port of Rotterdam, Schiphol airport and the network of the polders, the greenhouses become symbols of the dissolution of time and

place. The new descendants of Crystal Palace are rectilinear volumes extruded from the parcel limits of the polders. They fill up the void in between the historical centers of the Randstad Holland.

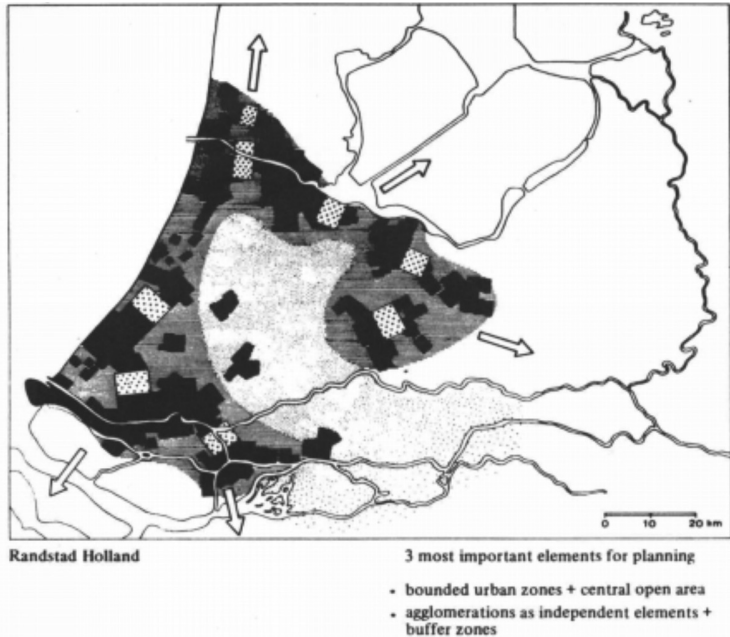
3.3 The Randstad Holland as Eroded Metaphor

The Randstad Holland is an agglomeration within the European Megalopolis with over 8,2 million inhabitants, consisting of Amsterdam, Utrecht, Rotterdam, The Hague and a number of smaller cities. Positioned within the center of the crescent, it lies in proximity to other poles within the megalopolis as Brussels, London and Ruhr. As many cities within it, its existence owes inherently to the economic concentration that emerged in the region starting from the Middle Ages, where the agglomeration profited from its placement along the river estuary of Rhine-Meuse-Scheldt connecting it to the southern parts of Europe. Without the checkered polder landscape of colonized and interconnected nature, the area could not have been conceived as it is today, since polders constitute the majority of its soil and also the majority of Dutch cities in general.²³

During a flight in 1938, a Dutch aviation pioneer by the name of Albert Plesman coined the name Randstad, in English translated to 'Rim City', when from above seeing what successively had become an urbanized collar.²⁴ Inside of the collar, there was a cultivated void. Named Holland's Green Heart, the empty center consisted mainly of a layer of peat,

²³ Steenbergen, Clemens M., et al., *The Polder Atlas of The Netherlands: Pantheon of the Low Lands*. Bussum: THOTH Publishers, 2009, p. 399

²⁴ Albert Pleisman was the founder of the KLM. See: Kooji, Pim, Laar, Paul van de "The Randstad conurbation: a floating metropolis in the Dutch Delta" in *Historia Agriculturae* 42, 2010, p. 113



Spatial figure of the Randstad with imagined growth. Ca. 1975

where construction was difficult due to the instable soil.²⁵

Until the 18th century, Dutch cities were separated from the outside with walls and gates. The systematic destruction of these fortifications began in 1813, permitting the growth of what in the 20th century would form the urbanized ribbon.²⁶ The structure of the horseshoe of polynuclear but continuous urbanization with a void on the inside detected by Pleisman remained relatively unbroken throughout the first years of modernization.

²⁵ Regt, Ad de, Burg, Arjen van der "Randstad Holland: The Delta Metropolis" in *Informationen zur Raumentwicklung*, no. 11, 2000, p. 691

²⁶ Woud, Auke van der "Form and indentity of the Randstad" in *Zodiac. Rivista internazionale di architettura* no. 18, p. 23

His metaphor describing the spatial figure became operational for planners and the Dutch Government in creating policies intending to organize the growth of the built. After five years of German occupation, the government presented a centrally ruled reconstruction plan in the 1950s. In the vision for the west part of the country, the government regarded for the first time the whole area as one functional unit, something that would result in an extreme growth of the urbanized territory. The Green Heart was to be protected and the expansion of the densely situated historical centers was to be directed outside the ribbon in anonymous satellite neighborhoods.²⁷ The city of Almere situated on the Flevopolder is one of these satellite towns. Connected with a high-speed train to Amsterdam Centraal, it can be described as an overflow area for the North Wing of the agglomeration.²⁸

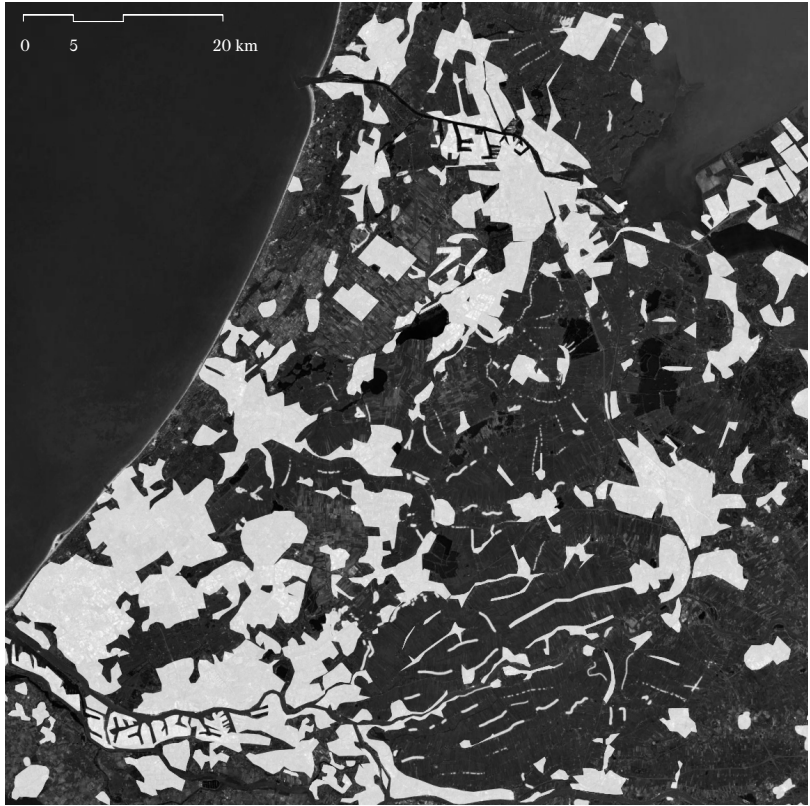
The extension of Schiphol and different highway projects in the 1950s and 1960s engendered the beginning of certain important transitions in the pattern. In general, infrastructures as highways and railways increased in size and the network became more concentrated.²⁹ Despite that the restrictions guided by the metaphor were taken into consideration in planning documents, what had once been a polycentric pattern of autonomous cities was growing in all directions, largely facilitated by the grids of the polders.

The large-scale reflection on the Randstad Holland and even the Netherlands as a whole was transmitted to the architects of the time. In the late 1980s Willem Jan Neutelings theorized the Randstad as a continuous city that during a short drive permits

²⁷ Woud, Auke van der, "Form and indentity of the Randstad" in *Zodiac. Rivista internazionale di architettura*; no. 18, p. 21-22

²⁸ Steenbergen, Clemens M., et al., *The Polder Atlas of The Netherlands: Pantheon of the Low Lands*. Bussum: THOTH Publishers, 2009, p. 510

²⁹ Palmblom, Frits. "Polycentrism and urbanized landscape in the Netherlands." in *Zodiac. Rivista internazionale di architettura*; 1997, no. 18, p. 66



Built areas within the Randstad. 2018

the traveler to pass by oil refineries, flower fields, garden cities, medieval ditches, eight lane highways, airports and mosques, Neutelings calls the prevailing condition Tapijtmetropool, the patchwork metropolis, in a system where coordinated yet different fragments lay side by side in an interconnected system.³⁰

Through the 1993 research project Puntstad Zuidstad by OMA and NL Stad by MVRDV this tradition continued. In the former, OMA suggests two different projects on the scale of the whole country, both favorizing concentration its contrast, empty space. With Puntstad or 'Point City' the

³⁰ Neutelings, Willem Jan. *Willem Jan Neutelings, architect*. Rotterdam: Uitgeverij 010, 1991, p. 40

idea is to establish a new center inside of the the Green Heart, strategically placed in between the most populated areas of the agglomeration, transforming them to new peripheries. In Zuidstad, all new construction needed in the country would be concentrated in the very south, physically closer to London, Brussels and also Ruhr.³¹

Some years later, MVRDV acknowledges through NL Stad that the Netherlands has an important heritage of governmental planning with heroic size, from the polder projects with Schiphol under sea level to the extensive farm plot rationalizations. Instead of augmenting the chaos of different cities within the continuous built field that currently compete about tourists, the active workforce or having the best recreational areas in a cacophony of what they call a planning bureaucracy, NL Stad proposes a zoning plan on the scale of the whole country. Different zones would be created from amplifying the existing characteristics of each area. The distribution zone would be in the highway-landscape in between Eindhoven and Amsterdam, the energy zone for wind turbines outsourced in the North sea, a port zone in relation to the port in Rotterdam, a greenhouse zone southwest of The Hague in the Glazen Stad.³² With a developed infrastructural system, the country is explicitly proposed to function as one unit. What the Tapijtmeterpool, Puntstad Zuidstad and NL Stad have in common is that they contribute to the romanticized view of the present condition within the country. The ever-expanding urbanized realm is seen as chaos that adds a large variety of intense experiences, nourished by territories far away.

The Randstad Holland, an agglomeration whose name was invented in the air by the modern Baudelairian flaneur, is

³¹ Gargiani, Roberto. *Rem Koolhaas: OMA: The Construction of Merveilles*. Lausanne: EPFL Press, 2019. p. 233

³² Maas, Winy, MVRDV, Berlage Instituut, red. *KM3: Excursions on Capacities; [the 3D City]*. Barcelona: Actar, 2005, p. 180-266

nothing but an urbanized landscape owing to the fearless scale of maakbaarheid and large-scale planning. It is a constellation of built areas and agricultural fields intertwined by the grid of infrastructure and land division. The agglomeration is on the maps of the geographer Roger Brunet appearing as a territory that densely houses multinational firms, research centers, laboratories, universities, stock exchange and important infrastructural nodes as Schiphol and port of Rotterdam. The economic activities permitting the continuous spinning of the treadmill are supported by an artificial soil created when the existing was not judged stable or spacious enough, in a colonization of nature through the grid. Together with the large-scale planning, it has permitted the horizontal spread of agricultural practices aiming for an ever-increasing profit in a interconnected, low-rise urbanization.

The Green Heart that was once an uninterrupted void is today neither empty, nor rural. Contrarily, it is a hyper-cartesian surface of low-rise architecture and agriculture just as urbanized as the historical city centers. As the embodiment of the dissolution of the unequivocal limit between the opposites full and empty, as announced in by OMA in relation to Puntstad Zuidstad,³³ the rim of the ‘Rim City’ has disappeared. Together with the Green Heart, they have become victims of the spread of the continuous urban sea, both constituting eroded metaphors.

³³ Announced on their website. <https://oma.eu/projects/pointcity-southcity>

4 Antidote

The presuppositions about the correspondence between capital accumulation and human welfare have created territorial symptoms as the infinite urbanization on the grid. The measures needed to combat it owe to the concepts inherent to the tell, but will yet need adapt to the characteristics of the Randstad when emerging within its realm. How will a settlement countering the status quo within the urbanized field function?

4.1 Off the Grid

A Spread-Distracting Apparatus for the Randstad

Nowadays, 'city' as word tends to have a neutral connotation masking its accurate *raison d'être*, as theorized by Tafuri. 'City' seems to evoke a hub of spectacle nourished by distant, often poorer territories. An indifferent attitude towards everything that is not pleasure reigns. To unmask the true purpose of the habitat which is a territorial equilibrium devoid of the aim of infinite growth, the habitat required for the Randstad cannot therefore be called a city.

Modern architecture can be revealed as a biopolitical instrument aiming at shaping the subjectivity understood as life, formulated by Sven-Olov Wallenstein in Biopolitics and the Emergence of Modern Architecture.¹ In the same way, to oppose the tendency of reading projects for the city as a natural phenomenon, the intervention required for the Randstad must be called an apparatus, since its main goal is to distract from the ever-increasing spread of the urbanized field inside of the European Megalopolis.

In a context targeting self-sufficiency, the spectacle of the urbanized field will decrease. Therefore, the apparatus cannot encapsulate one single program. It will host a multitude of activities pertinent to the will and need of its inhabitants. Noise, dirt and a constant reorganization of the habitat must be expected, since the habitat is a hybridization of dwelling and production space. The result will make up an image far away from the arcadian hamlet. It is equally far away from the contemporary European urbanized field, where dirt and production since a long time have been pushed away from its polished reach. The only production that by now can be

¹ Wallenstein, Sven-Olov *Biopolitics and the Emergence of Modern Architecture*. Princeton Architectural Press, 2009, p. 4

anticipated will be the agricultural, intended to feed its inhabitants and not the whole continent. By working with a low-energy approach in introducing crops that endure the temperate climate, the logic of the present-day greenhouses is wrecked. The apparatus frames therefore the performance of life, where life itself will become the true work of art.²

The mode of life engenders that the local dimension is increasing to the point that inhabitants become dependent on it. It means that a balance between natural exploitation and caretaking of the environment will reign, where artificiality is needed for survival. What is at stake is although not an artificiality on a megalomaniac scale as has been the case with the polders and the farm plot rationalizations. The construction of the apparatus, an artificial act, will be site-specific and emerge from a limited location. Its construction might appear generic if compared to other possible apparatuses. But who said that genericness is bad if it appears as a consequence to a increased self-sufficiency?

The spread-distracting apparatus is doubtlessly a limited form with an explicit boundary. Yet, it is not necessarily closed. The boundary can be porous or structured by thresholds, but some kind of delimitation is needed. The apparatus needs its boundary as the work of art needs its frame, so that within its delimited space a realm can emerge only responding to its own consensus, rather than the forces of the exterior. In assuming a finite shape framing the occupied space, the common ground for the community is highlighted. Inhabitants do not need to agree on everything, but one simple consensus is dominating: capital accumulation is not the sole way to create human welfare. Expansion and accumulation, as in the

² To evoke life itself as a work of art has been done for example by Superstudio in the anthropological study of the Tuscan farmer Zeno, as a part of "Extra-Urban Material Culture" from 1978. See 2A+P/A "La Coscienza di Zeno": Notes on a Work by Superstudio" in *San Rocco* 8, 2013. p. 6-13

same urban structure, capital but also personal belongings cannot continue as it does inside of the Megalopolis. The boundary of the apparatus is the materialization of the non-complex economical relationship with its surrounding. It reverberates the will to stay as independent as possible.

The monumentally colossal greenhouses controlled by capital-intensive systems within the Randstad are a veritable junkspace. As spawn of modernity and urbanization they constitute symptoms of the societal aim of growth. The apparatus will therefore emerge within the greenhouse districts increasingly filling up the space between the historical centers, eroding the metaphor of the Randstad. The dismantled greenhouse and its foundation will constitute decisive elements, becoming the starting point of the construction of the apparatus. To steal their placement within the polder landscape cannot be regarded as anything but a favor, a rebellious and unavoidable act that will halt the megalomaniac production defining its activity.

The form of the apparatus embodies a degressive logic. When it evolves due to changes in need, the added body is always smaller than its antecedent base. This arouses an internal re-organization where the people will cope with expected or unexpected challenges. Innate to its mechanisms, there is no unnecessary annexing of the immediate territory. By returning to the littleness of the local context, any possibly unlimited scheme of the degressive form is forever cancelled. With the soil of the site itself, some timber and the debris of the junkspace, no Burj Khalifa can arise within the Randstad. Instead, when the capacities of the surrounding and the structure itself cannot further serve the people in need, the apparatus will need to be duplicated in a suitable location. Its model of growth does not necessarily suggest a decline of the human settlement, as was the case with the tell. It merely suggests that they should

not be continuous and function as one single organism.

To be off the grid in this context means simply to establish a habitat that will never adopt the physical grid of the polders to expand outwards in all-encompassing patterns. Therefore, the apparatus helps protect the void left in its surrounding which is not constituted by wilderness, but fields of monoculture. The fields are not safeguarded because they possess an important symbolic or ecologic value. They are protected since densifying the sea of urbanization would aggravate the dependencies on territories far away. It would further complexify an already incomprehensible machine of networks. It is busy taking care of itself, which is not an act of indifference vis-à-vis the surrounding. Rather, it is a political act of resistance acknowledging that a shift in mode of life cannot be imposed by the few to the many but must be a voluntary move. Also, it recognizes that a change of this sort cannot be orchestrated for a vast land but must begin from one singular location. To be off the grid means further to negate the extreme material and immaterial interconnectivity that the mechanisms within the urbanized field is imposing on us. It means to voluntarily cut off the veins supplying the machine, or the Randstad, with an abundance of goods. To be off the grid within the domain of the urbanized field does nevertheless not mean to hide from the surrounding. In contrast to the remote and hidden ecovillage, the establishment of the apparatus is a powerful way of visually demonstrating the resistance against the status quo.

In the 2014 book Less is Enough: On Architecture and Asceticism Pier Vittorio Aureli quotes Nietzsche on asceticism. For Nietzsche, asceticism displays the fundamental phenomenon of the existence of humans which is the never-resolved tension between desire and restraint, where neither prevails over the

other but both coexist in a precarious equilibrium.³ Throughout a territory where unlimited cravings are ruling, the off-the-grid-apparatus and the lives of its inhabitants become a symbol for this tension between desire and restraint. The apparatus represents a rather small gesture compared to the surrounding field of urbanization. When appearing, it would yet initiate the journey towards a more stable territory.

³ Aureli, Pier Vittorio. *Less Is Enough: On Architecture and Asceticism*. England: Strelka Press, 2013, p. 18

Bibliography

Akkermans, Peter M.M.G., Schwartz Glenn M. *The archaeology of Syria: from complex hunter-gatherers to early urban societies (c. 16,000-300 BC)*. Cambridge, UK; New York: Cambridge University Press, 2003.

Aureli, Pier Vittorio. *Less Is Enough: On Architecture and Asceticism*. First edition. England: Strelka Press, 2013.

Aureli, Pier Vittorio. *The possibility of an absolute architecture*. Cambridge, Mass: MIT Press, 2011.

Bieleman, Jan. *Five Centuries of Farming: A Short History of Dutch Agriculture, 1500-2000*. Wageningen: Wageningen Academic Publishers, 2010.

Brunet, Roger, Boyer, Jean-Claude, RECLUS Group, red. *Les Villes "européennes": rapport pour la DATAR, Délégation à l'aménagement du territoire et à l'action régionale*. Paris: Documentation française, 1989.

Flam, Jack D. *Robert Smithson, the collected writings*. Berkeley: University of California Press, 1996.

Gargiani, Roberto. *Archizoom associati, 1966-1974: de la vague pop à la surface neutre*. Milano; Lausanne: Mondadori Electa; Ecole polytechnique fédérale de Lausanne, 2007.

Gargiani, Roberto. *Rem Koolhaas: OMA : The Construction of Merveilles*. Lausanne: EPFL Press, 2019.

Hooimeijer, Fransje. *The making of Polder cities: a fine Dutch tradition*. Heyningen: JapSam Books, 2014.

Koolhaas, Rem. *Junkspace: repenser radicalement l'espace urbain*. Paris: Payot & Rivages, 2011.

Laugier, Marc-Antoine *Observations sur l'Architecture*, Paris: Saillant, The Hague: Paris: 1765.

Liverani, Mario. *The Ancient Near East: History, Society and Economy*. London; New York: Routledge/Taylor & Francis Group, 2014.

Lloyd, Seton. *Mounds of the near east*. Edinburgh: Edinburgh University Press, 1963.

Maas, Winy, MVRDV, Berlage Instituut, red. *KM3: Excursions on Capacities; [the 3D City]*. Barcelona: Actar, 2005.

Mumford, Lewis. *The City in History: Its Origins, Its Transformations, and Its Prospects*. San Diego New York London: Harcourt, Inc., 1989.

Neutelings, Willem Jan. *Willem Jan Neutelings, architect*. Rotterdam: Uitgeverij 010, 1991.

Newton, Isaac. *The Principia: Mathematical Principles of Natural Philosophy*. Place of publication not identified: Snowball Pub., 2010.

Pauly, Danièle. *Le Corbusier: The Chapel at Ronchamp*. Basel: Birkhäuser, 2008.

Reade, Julian. *Mesopotamia*. 2nd ed. London: British Museum Press, 2000.

Speiser, E.A. *Excavations at Tepe Gawra Volume 1*. Philadelphia: University of Pennsylvania Press, 1935.

Steenbergen, Clemens, Bobbink, Inge M., Heuvel, Bert van den, Wit, Saskia de. *The Polder Atlas of The Netherlands: Pantheon of the Low Countries*. Bussum: THOTH Publishers, 2009.

Tafuri, Manfredo. *Architecture and Utopia: Design and Capitalist Development*. 10. print. Cambridge, Mass.: MIT Press, 1996.

Tiberghien, Gilles A. *Land art*. Paris: Dominique Carré, 2012.

Tobler, Arthur J. *Excavations at Tepe Gawra Volume 2*. Philadelphia: University of Pennsylvania Press, 1950.

Viganò, Paola. *Territories of urbanism: the Project as Knowledge Producer*. Lausanne: EPFL Press, 2016.

Wallenstein, Sven-Olov. *Biopolitics and the Emergence of Modern Architecture*. Princeton Architectural Press, 2009.

Articles

2A+P/A, "La Coscienza di Zeno": Notes on a Work by Superstudio" in *San Rocco* no. 8, 2013, p. 6-13

Aureli, Pier Vittorio. "Appropriation, Subdivision, Abstraction – A Political History of the Urban Grid" in *Log44*, Fall 2018, p. 139-169

Baker, F. William, Pawlikowski, J. James. "Higher and Higher: The Evolution of the Buttressed Core" in *Civil Engineering* no. October 2012, p. 58-65

Burg, Arjen van der, Regt, Ad de. "Randstad Holland: The Delta Metropolis" in *Informationen zur Raumentwicklung* no. 11, December 2000, p. 691-703

Childe, V. Gordon. "The Urban Revolution" in *The Town Planning Review* no. 21, April 1950, p. 3-17

Frambach, Hans. "Johann Heinrich von Thünen: A Founder of Modern Economics" in *Handbook of the history of economic thought: insights on the founders of modern economics. The European heritage in economics and the social sciences*. ed. Backhaus, Jürgen G., New York: Springer, 2012, p. 299-321

Khosravi, Hamed. "Camp of Faith: The Political Theology of the Islamic City" in *The City as a Project*, Aureli, ed. Pier Vittorio, Berlin: Ruby Press, 2013, p. 70-100

Kooji, Pim, Laar, Paul van de "The Randstad conurbation: a floating metropolis in the Dutch Delta" in *Historia Agriculturae* no. 42, 2010, p. 111-137

Krauss, Rosalind. "Sculpture in the Expanding Field" in *The Anti-aesthetic: essays on postmodern culture*. ed. Foster, Hal, Port Townsend, Wash: Bay Press, 1983, p. 31-42

Palmbloom, Frits. "Polycentrism and urbanized landscape in the Netherlands." in *Zodiac. Rivista internazionale di architettura*; no. 18, 1997, p. 64-85

Simmel, Georg. "The Metropolis and Mental Life" in *On Individuality and Social Forms: Selected Writings*. ed. Levine, Donald N., Chicago: Univ. of Chicago Press, 1971. p. 324-339

Simmel, Georg. "Soziologie des Raumes" in *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich*, ed. Gustav Schmoller, Leipzig: Band, 1903.

Woud, Auke van der. "Form and identity of the Randstad." in *Zodiac. Rivista internazionale di architettura*; no. 18, 1997, p. 20-35

Internet sources

Aureli, Pier Vittorio, Tattara, Martino. "Stop City". Retrived from <http://socks-studio.com/2011/07/10/stop-city-by-dogma-2007-08/>. Accessed January 2, 2020.

Encyclopedia Britannica. "Capitalism". Retrived from <https://www.britannica.com/topic/capitalism>. Accessed January 4, 2020.

Klavins, Bernadette. "Acts of Revealing: Nobuo Sekine's Phase Mother Earth" in *Fine Print Magazine* no. 17, December 2018. Retrived from <http://www.fineprintmagazine.com/phase-mother-earth>. Accessed January 2, 2020.

OMA "Poinstad Zuidstad". Retrieved from <https://oma.eu/projects/pointcity-southcity>. Accessed January 6, 2020.

Rovira Torres, Marcelo "The Middle Way". Revtrrieved from <http://www.towardsanarchitecture.com/rovira-torres-marcelo--the-middle-way.pdf>. Accessed January 2, 2020.

UNESCO World Heritage Convention "Erbil Citadel". Retrieved from <https://whc.unesco.org/en/list/1437/>. Accessed January 5, 2020.

Wageningen University & Research statistics of the Netherlands, "Agricultural exports worth nearly €92 billion in 2017". last modified January 2018. Retrieved from <https://www.government.nl/latest/news/2018/01/19/agricultural-exports-worth-nearly-€92-billion-in-2017>. Accessed January 6, 2020.

Wiktionary 2018, "Landbouw". Retrived from <https://en.wiktionary.org/wiki/landbouw>.

Illustrations

A. Redrawn map based on map by RECLUS Group. Published in Brunet, Roger, Boyer, Jean-Claude, and RECLUS (Group: Montpellier, France), red. *Les Villes "européennes": rapport pour la DATAR, Délégation à l'aménagement du territoire et à l'action régionale*. Paris: Documentation française, 1989.

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C. Redrawn scheme based on illustration by Seton Lloyd. Published in Lloyd, Seton. *Mounds of the near east*. Edinburgh: Edinburgh University Press, 1963.

C. Redrawn scheme based on drawing in Lloyd, Seton. *Mounds of the near east*. Edinburgh: Edinburgh University Press, 1963.

D. Photo: Brancusi's studio. Author: Neil Cummings. Licenced under CC BY-SA 2.0. Retrieved from <https://ccsearch.creativecommons.org/photos/31cc6419-0610-4915-blb5-e7eebe6de35b>

E. Photo: Phase—Mother Earth. Artist: Nobuo Sekine. 1968. Published in Klavins Bernadette. "Acts of Revealing: Nobuo Sekine's Phase Mother Earth" in *Fine Print Magazine* 17, 2018. Retrieved from <http://fineprintmagazine.com/archive>

F. Redrawing based on plan published in: Khosravi, Hamed. "Camp of Faith: On Political Theology and Urban Form." [s.n.], 2014. p. 123.

G. Redrawn scheme based on description by Frambach, Hans. "Johann Heinrich von Thünen: A Founder of Modern Economics" in *Handbook of the history of economic thought: insights on the founders of modern economics. The European heritage in economics and the social sciences*. red. Backhaus, Jürgen G., New York: Springer, 2012. p. 306-307.

H. Photomontage. Author: Archizoom Associati. Published in: Gargiani, Roberto. *Archizoom associati, 1966-1974: de la vague pop à la surface neutre*. Milano; Lausanne: Mondadori Electa; Ecole polytechnique fédérale de Lausanne, 2007.

I. Photo: "Law of Multitude (Tabunritsu)" by Kishio Suga, 1975 & 2012. Courtesy of the artist and Blum & Poe. Licenced under CC BY-SA 4.0. Retrieved from https://fr.wikipedia.org/wiki/Fichier:Kishio_Suga,_%22Law_of_Multitude%22,_1975.jpg
Accessed January 5, 2020

J. Redrawn map based on map "Landaanwinning vanaf 1300 " in *De Bosatlas van de geschiedenis* Groningen: Noordhoff Uitgevers, Atlas Productions, 2008.

K. Redrawn map based on map published in: Steenberg, Clemens, Bobbink, M, Inge Bert van den Heuvel, de Wit, Saskia. *The Polder Atlas of The Netherlands: Pantheon of the Low Countries*. Bussum: THOTH Publishers, 2009. p. 386.

L. Satellite photo from Google Earth Pro. 2019. Nieuw Vennep, Hoofddorp and Schiphol Airport, Haarlemermeerpolder. 52°16'37.79"N, 4°41'04.69"W, elevation 15.46 km. 3D

map, Buildings data layer. Accessed January 5, 2020.

M. Satellite photo from Google Earth Pro. 2016. Westland 51°58'52.39"N, 4°10'14.74"W, elevation 17.66 km. 3D map, Buildings data layer. Accessed January 5, 2020.

N. Satellite photo from Google Earth Pro. 2018. Oostbuurt, Westland 51°58'41.06"N, 4°17'39.82"W, elevation 4.35 km. 3D map, Buildings data layer. Accessed January 5, 2020.

O. Map of the Randstad, ca 1975. Published in "Fifty Years of Dutch National Physical Planning" in *Built Environment* 17, 1991 p. 23-33

P. Redrawn map based on Satellite photo from Google Earth Pro. 2016. 52°03'42.21"N, 4°41'05.33"W, elevation 175.37 km. 3D map, Buildings data layer, accessed January 5, 2020.

