Project Literature

Structure

-A Priori: Aim
-Condition as found: Tax avoidance system in Luxembourg City
-Evolution: institutionalization
-Evolution: return

Aim

The project's aim is to develop architectural phenomenon able to deliver physical presence to immaterial and yet very real fragments of our reality. The case envisioned for such aim is the financial sector in Luxembourg City, and more specifically the leak of documents exposing extremely favorable tax agreements between Luxembourg's revenue authority and multinational companies on the 5th November 2014 by hand of the International Consortium of Investigative Journalists (ICIJ). Even tough financial and advisory services largely contribute to the economy, and therefore to the identity, of Luxembourg as a country, little evidence of this development is displayed in the architecture of Luxembourg City. The city is turning into a giant business park for companies to move in, due to the legislation for favorable taxation rates for foreign companies, and to the consequent growth of companies that offer advisory services designed to produce the best possible condition for such foreign companies. Pricewaterhouse Cooper's, the company whose files leaked in late 2014, is effectively one of the biggest employers in Luxembourg, with over 2.5K employees in 2016[1] and has been inaugurating two new office buildings since the same year.[2] The country's wealth is increasing over taxation of foreign companies and advisory activities, reaching the third position in Europe for the figure of GDP per capita[3]. What has been described since now is the software side of the Tax avoidance system in Luxembourg; on the other side there is an array of physical conditions that enable the system to work effectively. The material culture supporting the system emerged prominently the moment the journalists from ICIJ and other news networks started asking question to the ones directly concerned by the Leaks: the companies. The journalists started digging out of the documents the legal addresses of foreign companies' subsidiaries in Luxembourg, unveiling an unexpected condition: multiple companies were registered on the same addresses, in some cases up to 1,5K. The journalists who ventured to the addresses indicated in the documents found little evidence of the companies' presence; the only elements ascribable to them were letterboxes, doorbells and nameplates. Inside the office answering the doorbell there was a receptionist, often working for multiple employers and answering the buzzer on behalf of all of them. The legal occupancy of an address in Luxembourg City does not imply any obligation in terms of employed staff, accessibility, or even spokesmen able to answer the doorbell. The logic of deployment of such legal condition in the city does not follow any recognizable pattern: the subsidiaries' letterboxes can be found in the city center as well as in the European District on the plateau of Kirchberg or in suburbian industrial areas. Letterboxes are found in the most favourable conditions; these are simply ascribable to matters of availability, convenience or mere chance. The logics applied in the spreading of the tax avoidance system in the city disregard, in turn, any architectural qualification whatsoever.

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1 The growth of the company is perhaps the most striking figure, with only 900 employees in 2005, PwC volume almost triplicated over 10 years.
2 source: http://www.wort.lu
3 source: http://data.worldbank.org

Being perfectly legal to make ad personam arrangements between companies and Luxembourgish revenue authorities, the LuxLeaks should not become an international debate; this would have been the case, only if it wasn't for the revenue lost by foreign countries. Millions of Euro of taxations have legally disappeared from several countries' balances, provoking demands from Luxembourg's tax authority for the restitution of the monetary loss. At present the financial system in Luxembourg is regulated by a legislation ratified by the former Pirme Minister, now President of the European Commission, Jean-Claude Juncker. In the paradoxical situation in which Juncker is in the position of investigating and taking action on acts he himself accomplished, a solution should be envisioned, one in which the loss of tax revenues from foreign countries is in some way restored by providing a service to the foreign sovranities while respecting the freedom of Luxembourg to preserve its tax legislation.

Physiocracy of the city

Patrick Geddes formulates the idea of the Vally Section in his book "The valley section from hills to sea." (New York City, 1923). This surveying device describes in section the natural (meaning best adapted) human activity in respect to the topographical condition. The section is imposing an organization to the territory, one which is excusively based on the form of the territory itself, unrelated to matters of human nature, such as existing roads, position of cities, or property. This conception implies the aprioristic existence of an order embedded in the land, which manifests itselft as the premier management of the land. The concept of the valley section was later inherited ad appropriated by the architects of the Team X,shifting form economic to social realm. Team X's Doorn Manifesto describes the degree of social association in the different conditions displayed in the section. The growth in size of conurbations from the hegiths towards the valley is paralleled by a growth of association between individuals.

The involvement between human activity and ground topography in terms that involve program and typology more than form and techtonics, finds its roots in ancient cultures. In ancient Greece the Acropolis[4] (high city) was the elevated ground formation that was intended to host the deity and their houses (the temples). The soil of the Acropolis did not host any construction accommodating earthly activites, such as politics, commerce or agriculture. Lower, in the lay side of the city, was the civic equivalent of the Acropolis, namely the *ásty*. The *ásty* hosted the economic, politic and social functions of the city, and was giving home to artisans and merchants. The inhabitants would meet and carry out businesses in the *Agorà*[5], the main square surrounded by a colonnade, or *stoà*. Ancient Roman culture hevily borrowed elements and rutals form Classic Greece. Similarly to what happened in Greek cities, also in Ancient Rome the organization of the settlement was developed in a tension between the heights in which the deity dwelled, in the case of Rome the Alban Hills, and the land on which the lay city was located, with the Forum, the space in which political and economic activities were carreid out. But the Roman society's identity was partaken by another legacy present in the terrritory of the city. The Etruscian toombs, found in the geological formations typical of Lazio known as *forre*, sudden drops of the terrain that generate almost vertical stone facades. The toombs were carved out on the level of the drop inwards, in order to facilitate the extraction of material form the body of rock, while at the same time forming

4 Acropolis comes from the Ancient Greek *akros*, meaning "highest topmost outermost", and *pólis*, meaning city.

5 The term can be translated as to gather, to collect. It is interesting to notice that the space of the *Agorà* generated also predicates for the actions that were usually carreid out in it; *agorázō*, "I shop", and *agoreúō*, "I speak in public".

a sort of facade on the vertical face of the slope.[6] The tension created in the ancient city of Rome was suspending the scoiety's identity between the local memory as descendants of the Etrucian civilization and the cultural heritage acquaired from Greece. (Virgilio will reinforce this latter by drawing the origins of the Roman civilization to the endaevour of the greek hero Enea, who, after escaping the city of Troy, founded in the virgin territories of Lazio).

Similiarly the involvement between territory and urban settlement informs the urban layout of Luxembourg city. Two conurbations lie on the same territory, one upon the other, in what may be called an urban vertical schism. The higher city is the pulsating heart of Luxembourg as European country and as host to few European institutions. Here are found the national authorities, the ancient city center, and the European district, hosting the European Court of Justice and the European Investment Bank. This city is organized with successive master-plans and expansions. The city center remains the central distributive element, while the other districts branch out from it. The districts are connected by transitional infrastructures, in the form of Bridges (Red Bridge, Passerelle, Pont Adolphe) and park areas, mainly covering the footprint of the former fortification walls, demolished in 1867[7].
In the lower city a local and bucolic environment surrouds a settlement of houses and leisure activities. The greenery is generous and the sight over the rest of the city is ofthen closed off by the steepness of the plateaux. This city develops as a linear conurbation along the rivers Alzette and Petrusse, and the footprint of the houses follows the geology in the research of the most economic condition in terms of effort, accomodating the altimetric profile of the ground as much as possible.
The two cities are connected by varuos infrastrcutural objects variated in typology: pedestrian, automotive, mechanaized. Even though the sight often doesn't allow to perceive te existence of a parallel city, there are evidences that hint towards its existence. The most prominent is represented by the bridges and train viaducts that serve the upper level while they occupy the lower. These infrastructural works are remarkable in how, in order to perform on behalf of the upper city, they hevily occupy and impose themselves on the lower city. Such sudden interferences and short-circuits are witness of the uncontinuous development of the city, that skips fragments of built fabric, overcomes natural obstacles, and stitches together divided pieces. Urbanism in Luxembourg City is never solely relying on the plan as suvey and design tool; it always involves the sectional topographic condition. In this conditon urban planning requires every time some sort of appendix or atificial limb to overcome the limits imposed by the topography. The need for hevy infrastructure opens to the possibility for the strategic layouting of districts and infrastructures. allowing to foster certain relationships and disadvantage others. This generates a certain number of segregations in the city, that render the distance between some places longer, or shorter, than they really are.
In this context of superimposed layers and short-circuits the project envisions a third stratum of the city, one which exists inbetween the two levels described, and, like in the case of Rome, emerges as the intermediate state between the contradictions and tensions of the extremities.

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6 Christian Norberg-Schulz, "Il Genius Loci di Roma", in *Roma Interrotta,* ed. Christian Norberg-Schulz et al. (Rome: Incontri internazionali d'Arte, 1978) 13 –27.

7 Luxembourg's fortification was demolished in accordance to the Treaty of London, signed on 11th May 1867; the treaty was signed after a summit ment to conclude the Luxemourg Crisis, a conflict over the control of the Foretress of Luxembourg City between Netherlands, France and Prussia. The decision was taken to demilitarize the Foretress and demolish the fortifications in order to eradicate any desire of control over it.

Logics

As we have seen, the urbanization of Luxembourg city has been profoundly influenced by the specific topographic condition; new developments foud space for expansion in the upper and flatter part of the city, while tiny residential constructions occupied the valleys, accomodating the soil condition and opposing the least resistence possible to the ground. Similarly, a topographically-conditioned behaviour defines other intermediate devices in found in the city: the embankment, the road, the bridge-viaduct.

The embankment of ground, often used in the fortification walls, it modifies the topographical condition making it harsher, more steep. On one side it extends the ground bidimensionally, conceptually expanding the quota of the plateau over its limit, while on the other side it generates an almost vertical wall towards the cliff. It happens to find an embankment wall working opposedly, enlarging the space at the bottom of the slope, and in so doing emancipating and claiming volume from what otherwise would be full ground.

The second topographical device is the road; the geometric deisgn of roads is a brach of civil engineering that elaborates the geometry that the road shoud follow in order to have a constant inclination of the profile of the road. The result of the design process will then be a strip of asphalt with constant thickness and grade. Depending on the grade desired, the road will vary its footprint, tending to be direct with steeper grades, intricate in the case of gentle slopes.

A final device is represented by the duo bridge-viaduct. These are considered together as they achieve the same function, connecting two divided ends, even though they do so in completely different ways. The bridge connects two points regardless of the height difference; in its spanning it can connect two elements on different heights, or present in itself a height difference between the extremities and the middle. The viaduct, mostly employed for the rail infrastructure in Luxembourg city, shifts the objective from the connection of two points to the creation of a line, therefore making the notion of height fundamental for its geometry. The viaducts, more than connecting, prolongates a strip of land in the position it should cover ideally for the construction of the infrastructure on top. This fundamnetal difference between bridge and viaduct informs also the way the construction is made. On the one hand the bridge features in most cases a concentration of the structure in correspondance of the endpoints and anchorings of it; this characteristic emphasizes the idea that the connection is achieved by means of the bridge, as instrumental entity. On the other hand the viaduct features a homogeneous distribution of its structure all along its length; evenly spaced slabs joined by rounded arches sustain the strip of land which the viaduct is made of. Now the focus is posed on the horizontal surface itself, not anymore a means for the connection of two spots, but instead the true objective of the operation.

UI

UI is an ancronym that in the industrial design field stands for User Interface. They are becoming more and more important in contemporary society. Our daily activities are depending on the use of computer softwares, that we buy with virtual currency on an online shop, and we do so hovering a mouse on a piece of foam rubber printed laying on our desk, violently hitting or gently pressing buttons on a keyboard, closing contacts that activate informations, that are elaborate and evetually produce an output of ordered and filtered liquid crystals on a display that we can read in order to organize our response and plan our next hovering, clicking, pressing. User Interfaces are the only way we possibly catch up with the invisible reality of codes, waves and signals that surounds us and we cannot grasp. The devices with User Interfaces are mere decoders, linguistic interpreters of this reality, but they hold our only possibility to keep contacts with our bank account balance, the pictures of the familiy trip to Italy, the last conversation with our wife of Second Life®. Effectively if by any chance the coding and decoding system between man an machine would come to a breaking point, for which the information displayed are different from the real ones, then we would start taking decisions based on false inputs, jeopardizing our sustenance, our identity, our persona.

Part - interior/exterior idiosyncrasies

The Triumphal Arc is the building conceived with the primary and only focus on outer form. It is a sculptural architecture at its highest point; the only space it inscribes is the one under its arch(es), merely originated by the programmatic requirement of the passing through. The necropolis, on the contrary, represents the architecture of pure space, and regardless of the outer form consequence of such spatial configuration. The gothic church is conceived in the same way. The structure is moved to the exterior of the building, as a way to emphasize the quality of emptyness of the inside space of the church.

Materiality

Transparency - Opaqueness

In the introduction to the catalogue of the show Making Things Public, Bruno Latour describes the ideal assembly building. This would feature a transparent dome under which everybody would take place, enlightened by a common light of good and virtue, but only after having left each one's personal passions attachments and weakesses in the cloackroom.

Idea of transparency

On the other hand the bank as a urban function started as an early case of flexible appropriation of the Palazzo typology, made of heavy blocks of stone stacked upond each other perforated by deep and small openings.

Idea of protection

The enfatization of materiality in both cases is prominenent in the definition of the building as a urban object and as entity in the public realm.