#### Digging into the Smartness: A Short Technopolitical (Pre)History of Vienna's Urban Lakeside

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## 1 ABSTRACT

The smart city project "Vienna's Urban Lakeside" (VUL) - "Seestadt Aspern" for German speakers - is currently being built upon a landscape where relevant historical events took place. The most well known of these events are the Battle of Aspern-Essling (1809), in which the Napoleonic army failed to cross the Danube, and the inauguration of the Aspern Airfield (1912), which was of great importance until World War II. However, widening the historical span from the Neolithic period to the current construction of this "smart" urban district of Vienna (begun in 2007), there are to be found further elements that illustrate the relevance of the Aspern region in historical and technopolitical terms. For this reason, the paper considers the possibility of "digging" into the technopolitical history of the region in order to reveal the specific intertwining of power and technology in different periods. Rather than a pure historical analysis, the paper is conceived of as a preface to an anthropological approach to the technopolitical substratum of the VUL, which can be regarded as an experimental and therefore key part of a larger smart city project involving the whole city of Vienna. Taking the example of Aspern's region, the general suggestion of the analysis is that the historical contrast allows us to note that, while in the past technology and politics have appeared explicitly linked, in the present the discursive settings of the "smart urbanity" tend to conceal the relations of power (i.e. the political economy) behind a seemingly pure technological improvement of the ways we will dwell in the cities of the future.

#### 2 INTRODUCTION: HORSES AND THE EXPLICITNESS OF POWER

The novel Ein Spion in der Schlacht bei Aspern<sup>1</sup> starts with the description of what, in the time of the Empress Maria Theresa, it meant to be a "big wagoner" (Grossfuhrmann):

We must go back to the year 1756 in order to start this novel. In this year, in the time of Maria Theresa, there was a house in the Fuhrmanngasse, in the Leopoldstadt quarter, which had the number 109. The house belonged to one of the so-called "big wagoners", who were those that brought "big amounts" of trading goods into the province of Austria, for which they needed to have at least 40 or 50 horses.

The big wagoner Jakob Hübler was an especially distinguished man. He owned 80 horses and one could see his wagons in every commercial street of Moravia, Bohemia, Styria, Hungary and even in Italy. Jakob Hübler was a rich man. But he wanted to become richer: I won't stop, he once said, until I have 200 wagons, for which I will need at least 1200 horses (Bräuerle 1891).

The beginning of the novel recreates the social, historical and physical landscape in which the battle of Aspern-Essling later took place. In the 18<sup>th</sup> century, the power of a merchant could be quantified as being the number of horses he possessed. But this was not a local particularity of the "province of Austria", nor is it a measure of power confined to the late 18<sup>th</sup> and early 19<sup>th</sup> century. Horses, or more accurately the "horsepower" of an engine, continue to indicate the social status of the person to which they belong, even in the present day. Today, however, there are additional facts that destabilize the correlation between the number of "horses" of an engine and the real power of its owner. On the one hand, a working class man might have a powerful car if he invests a big part of his wage into buying it. Hence the number of "horses of power" one has does not reflect one's actual position within the structure of power of a given society. On the other hand (and this is what is at stake for the following analysis) the "horses of power" of a vehicle is a technical, metaphorical term, that disguises the complexity of the material and social conditions of control and use that constitute the real power this person gains by possessing a specific technology. To be sure, in 18<sup>th</sup> Austria one could not possess 80 horses and be defined as "poor"; in the 21<sup>st</sup> century, however, there might be found more than one humble citizen on the periphery of Vienna driving quite more than 80 horses of power.

The articulation of power with a specific technological object or a measure of technological strength seems to lose its equivalence in the context of postindustrial society. In 21<sup>st</sup> century neoliberal democracies, the

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<sup>&</sup>lt;sup>1</sup> "A Spy in the Battle of Aspern". Note that all translations from German to English are mine.

distribution of power is not as explicitly linked to technology as it was in the Age of Enlightenment. The reasons for the dilution of the intelligible conditions of dominance are evidently too complex to be encompassed here.<sup>2</sup> Notwithstanding, in the following analysis it will be stressed how different periods of the history of Aspern can be associated with concrete technological objects and materialities that enabled specific configurations of power. As mentioned previously, this short historical reading aims at stressing the contrast with what happens in the most recent period of the history of Aspern. Interestingly, within the current smart city project Seestadt Aspern (VUL), the power that will be exerted over its future population does not reveal itself in any explicit form. Nothing indicates that the future smart city involves specific forms of domination. On the contrary, its ecologically concerned, technologically engaged and politically participatory, democratic spirit is permanently highlighted. But in contrast with the "clean" depiction suggested by the involved companies and government institutions, recent analyses stress the necessity of unpacking the political economy embedded in many smart city ventures (e.g. Hollands 2008; Newman et al. 2009; Deakin & Al Waer 2011; Vanolo 2013). Likewise, the VUL project entails a political economical program that must be revealed. This is not to say that the VUL is a "wrong" or a "bad" urban project in any moral or political sense. It is rather a call for attention to the technological rationale that, in the form of sheer technical discourses on the quality of urban life, downplays the fact that every technological implementation (and to a greater extent when reflecting on "urban" scale) must be understood along with its political economical logic; that is: its capacity to embody, enable and reproduce specific structures of power.

# **3 PREHISTORY OF A SMART CITY**

In 1981, at the exposition Aspern: von der Steinzeit zum Motorenwerk<sup>3</sup>, the director of Vienna's former History Museum mentioned three important events that determined the history of the Aspern region: first, the battle of Aspern-Essling (1809), in which the Napoleonic army failed to cross the Danube; second, the inauguration of the Aspern Airfield (1912), which was of great importance until World War II; and third, the installation of a General Motors engine plant in 1980. In addition, the exposition aimed at showing the archeological objects found in the area, which dated from the Neolithic period onwards and which would "deploy thousands of years of history before the eyes of the beholder" (Waissenberger 1981).

Three decades later we can add a new event: the emergence of the Vienna Urban Lakeside, whose official history began in 2007 when the Swedish company Tovatt Architects & Planners won the bidding process with its comprehensive plan of the future "smart quarter". That history, as aforementioned, originates from a much deeper temporal, factual and environmental anthropocene. I refer to it as the "prehistory of VUL", not because it must be sought solely within the historiographical time of what we formally know as "prehistory", but to stress that in the past there was obviously no notion of a "smart city" in the region of Aspern. There is not a continuous chronological line along which we can see the development of the idea of a "smart city" from the Neolithic period to the 21<sup>st</sup> century. There is no "single history"; rather, there are diverse histories that sometimes overlapped but that did not necessarily originate with one another. The term "technopolitical (pre)history" is therefore not employed in any teleological sense, but rather to outline an analytical frame that focuses on the intertwining of technologies and the structures of power in different periods on the same landscape. The following points will suggest that a technopolitical analysis is thus central not only to the account of the events that occurred in the region of Aspern before the history of the VUL officially started, but also in order to disclose the articulations of power and technology as they underhandedly irrupted in the 21<sup>st</sup> century with the name of "smart urban planning".

# 4 THE TECHNOPOLITICAL STRATA OF HISTORY

Before the VUL, the two biggest infrastructural projects undertaken in Aspern were the Airfield (1912) and the General Motors Factory (1980). The ground was excavated for both projects and as a consequence of these excavations different archeological remains were found. It is precisely in the wake of big technological ventures that the presence of previous human technologies is discovered underneath the landscape's surface. This is how the "natural" terrain becomes a suddenly humanized place; in this case an archeological site. The



 $<sup>^{2}</sup>$  The analysis of the advent of "biopolitics" by Michael Foucault (2008) constitutes, in this regard, an excellent reading of the historical and anthropological conditions that faded the explicitness of the forms of political with the onset of Liberalism.

<sup>&</sup>lt;sup>3</sup> "Aspern: from the Stone Age to the Engine Plant".

access to lower geological strata of the region of Aspern has been enabled by these significant technological undertakings and continues to be done as a consequence of the VUL construction. Despite certain controversies having arisen because of the "suboptimal" conditions in which the current digging is being carried out, the promotion of smart urbanity seems to be the priority of the government rather than the interests of archeological knowledge.<sup>4</sup>

At any rate, according to the findings of the early  $20^{\text{th}}$  century archaeological excavations, the region was populated from at least the late Neolithic period, as shown by the many tools shaped in stone or in horns of red deer. Also found were remains of ceramic pots deriving from the Bronze Age, more specifically within the central European Urnfield culture (Franz 1927). The more recent excavations, on the occasion of the General Motors Factory and the VUL, have confirmed the hypotheses of two prehistoric settlement phases: one in the late Neolithic period (Cooper Age) revealed by the typical ceramic shapes of the Baden culture (3300 – 3100 BC), and another in the late Bronze Age up to the middle Urnfield culture (1300 – 1000 BC), from which the remains of construction posts were gathered. Hence the diverse objects of the prehistoric material culture collected in Aspern allow us to gain a rough depiction of the technological nodes of these periods: Ceramic pots, horn artifacts, loom weights, spin whorls, firedogs, stone axes, shaped silicon, remains of clay huts, etc. (see Penz 2010).

In the period between the start of Christian era and the Middle Ages human settlements proliferated in the adjacent areas. The economy of the region was characterized by agriculture, timber trade and the production of flour by means of ship-mill technology. Despite the increasing number of human settlements in the area, the population density remained low for hundreds of years. Thus, the historical data concentrates on a striking event that occurred in the early 19<sup>th</sup> century, namely the Battle of Aspern-Essling, to which the many historical documents and archeological remains bear vivid witness. In the mass graves, for instance, are to be found the skeletons of French soldiers and slain horses, as well as military clothing, ammunition and weaponry. In the time of the Napoleonic Wars, weaponry was quite explicitly at the core of technological power. The editors of Museum Aspern 1809 describe in detail the advances in military technology of the epoch and its correlation with the violent power struggle that was spreading through Europe:

Among the many reforms undertaken by the Archduke Charles must be counted the renewal of the army's equipment, especially weapons and firearms, which contributed to the technical advances of the epoch. This new equipment had been planned for a long time, since the year 1798 (...) but the permanent warfare, the subsequent economic struggles and the negative results of the military campaigns had forced them to evacuate the world wide known Viennese rifle fabric, after which the Steyrer fabric (1800) and the Ferlacher (1805) fell into hands of the enemy, providing them [the French] with more than 50.000 firearms and, at the same time, delaying the 1798 planned renewal of the Austrian equipment until 1808 (Dassler 1981).

If warfare, the fight for hegemonic power in Europe, and weaponry were the motor of technological progress during the Napoleonic Wars, by the end of the 19<sup>th</sup> century, this landscape was testimony to some of the first motorized flight attempts. Beside the several zeppelin landings that took place in Aspern, the most important event was without doubt the inauguration of the Airfield in 1912. An aviation school and an aviation museum complemented an infrastructure that served as a military airbase in both World Wars. The Aspern Airfield rapidly became a symbolic place and, accordingly, was never detached from politics. Thus, for instance, while in 1913 the emperor Franz Joseph was pictured following one of the popular flight shows through binoculars<sup>5</sup>, in 1930 Adolf Hitler chose precisely Aspern to organize a "massive meeting", which he announced with bright orange posters on which one could observe the black swastikas along with the promises of Hitler's success in his fight for "bread and freedom" (see Müller & N.S.D.A.P. 1930).

The Airfield served the Wehrmacht during World War II and until 1955 was used and controlled by the Red Army. Aeronautic technology and the control of its infrastructures was therefore openly linked to the structures of power of the first half of the 20<sup>th</sup> century. After the Russian occupation, the Airfield installations were mainly employed for civil aviation purposes, and in the second half of the century, the technological performances undertaken in the area acquired a more ludicrous tone: when Schwechat took over the function of Vienna's principal airport, Aspern turned into a car race spot. The Austrian Automobile Club hosted all kind of races: Touring, Formula Ford, Motorbike, Formula Five and even Formula One.

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<sup>&</sup>lt;sup>4</sup> http://derstandard.at/1334530900570/Wiener-Stadtteil-Archaeologische-Schaetze-in-Aspern.

<sup>&</sup>lt;sup>5</sup> http://www.asperniq.at/magazin/luftschiffe\_und\_tollkuehne\_flieger/

Famous drivers such as Stirling Moss and Niki Lauda saw victory on the Aspern circuit, and international figures such as the Saudi king Saud ibn Abd al-Aziz came along to enjoy the race and to solemnly deliver the prestigious prizes.<sup>6</sup>

Automobile technology has continued to be characteristic of Aspern from the 1980s to the present day as a consequence of the General Motors Factory. At the time the factory was built an uneven trade balance was endangering the Austrian economy. At the end of the 1970s the former Federal Chancellor, Bruno Kreisky, suggested fabricating an "Austro-Porsche" in order to increment the exportation rates. Conflict of interest with more powerful German companies, however, ruined these plans. In 1978 the Austrian government organized a congress to gauge the possibilities of improving the country's performance in the exportation of automobiles. Austria was deemed too small to produce its own cars on the large-scale, but Aspern was seen as an optimal place to build an engine factory, the General Motors corporation (nowadays the Opel), that would revive this sector of industry.

The main activity in Aspern, before the construction of the Vienna Urban Lakeside began, was the car industry; an industry that (as everybody knows) has always been tightly interwoven with politics. Perhaps for this reason, the engine and gear mechanism production at Aspern attracted the prominent Austro-Canadian entrepreneur Frank Stronach, a man who attempted to purchase the Opel factory in 2009. It is worth mentioning that Stronach was not only interested in car technology; he tried to enter politics when he ran as candidate for the Austrian presidency in the elections of 2013, creating the Team Stronach party. Curiously, alongside his political career, his areas of business also encompass weapons production (he is well known for the Eurofighter) and even horse racing.<sup>7</sup> One could suggest that the control over weapons and horses somehow transports us once again to the Napoleonic wars and to the 18<sup>th</sup> century "big wagoners". The times change and its contexts are often incomparable, but if one looks at the example of the man who tried to invest in Aspern's engine factory, the struggle for power and technology seems to freely move up and down in the time, sometimes mixing ideas, practices and materials, thus letting the strata of history reveal their own potential for recursion.

### **5** CONCLUSIONS

I have sketched some of the historic and prehistoric events that have marked the landscape of Aspern in a technopolitical sense. Despite having drawn a brief illustration of it, the central idea is that the view from the present backwards allows us to reconstruct the intertwining of power and technology in the past. It is my suggestion that, in contrast, the analysis of this articulation in the present time entails more difficulties. Thus, the depiction of the current project of the Vienna Urban Lakeside as a merely technological undertaking seems to provide us with an incomplete picture. Smart urban projects need to be analyzed not only in technical, but also in political and economical terms. The VUL likewise needs to be approached inasmuch as it entails the reconfiguration of specific relations of power. The history of Aspern is only one example that evidences the unavoidability of considering technological advances along with the structuration of the relations of power that prevail in a given society. A smart city project is not an exception. It has been suggested that social anthropology and other social sciences may unpack the ways in which power is currently reshaping itself in order to pervade within the cities of the future. The VUL marketing campaign, for instance, boasts the smartness of its future citizens by highlighting their efficient and technologically screened control of energy use.<sup>8</sup> This is highly desirable, but many questions remain. One of them could be whether it is even possible for "smart citizens" to be solely technologically proficient: that is, unconcerned with the historical, ideological and economical principles that underpin the perfect lives that others have designed for them.

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<sup>&</sup>lt;sup>6</sup> http://www.technischesmuseum.at/motorsport-in-oesterreich/veranstaltung/articleid/2150

<sup>&</sup>lt;sup>7</sup> http://en.wikipedia.org/wiki/Stronach\_Group

<sup>&</sup>lt;sup>8</sup> http://www.ascr.at/portfolio-type/smart-citizen-einbeziehung-nutzerinnen-beim-thema-energie

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