



FROM BORDEAUX TO ATHENS

HOW ENVIRONMENTAL CONDITIONS INFLUENCE
OUR WAY OF LIFE & PERCEPTION INTO THE CITY ?

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- MUNICIPAL POPULATION : 250 776 inhab. (2014)
- METROPOLIS' POPULATION : 760 933 inhab. (2014)
- DENSITY : 5 059 hab./km²

- ALTITUDE : Min. 1 m and Max. 42 m
- MUNICIPAL SURFACE : 49,36 km²
- METROPOLIS' SURFACE : 578,3km²

- MUNICIPAL POPULATION : 664 046 inhab. (2011)
- URBAN POPULATION : 3 090 500 inhab. (2011)
- DENSITY : 17 475 hab./km²

- ALTITUDE : 170 m and more
- MUNICIPAL SURFACE : 38,96 km²
- METROPOLIS' SURFACE : 427 km²

Source Datas on Annexes

HOW ENVIRONMENTAL CONDITIONS INFLUENCE OUR WAY OF LIFE & PERCEPTION INTO THE CITY?

First of all let's define properly the term "Environment" which is a word with different meanings. Obviously, Environment in a common definition means natural elements like the air, the natural landscape, the climate, the water etc. but it's also a matter of atmosphere, quality of life which surrounds us in the everyday life. In this case, the environment is perceived like a subjective feeling depending in our own way of living into the city. In this essay, we will talk about those two meanings through different points.

INTRODUCTION

TWO DIFFERENT URBAN FABRICS WITH A STRONG & NATURAL STARTING POINT

From a satellite view, we can notice that Bordeaux and Athens both started to grow from two obvious existing environmental elements: the Garonne river for Bordeaux and the Acropolis hill for Athens. Indeed, Bordeaux, former swampy city, went through three phases of radioconcentric construction around the river.

Bordeaux during the 7th century BC, is a small roman city, organized on a grid pattern. Highly influenced by Rome, capital city of the empire protected by a defensive wall, Bordeaux confined itself in a roman castrum.¹

Then in the 17th century, the city started to expand beyond this castrum, on the marshes. Thus, in 1754 the defensive walls were destroyed, remaining important outlines to limit the urbanization. Bordeaux became an open city.

²

Finally, in the 19th century, the urban sprawl developed so much that mayors needed to react: they created the boulevards as a new limit to urban sprawl but also as a boundary between Bordeaux and its suburbs.³

So we can distinguish the old organic streets, from the Antiquity, and the new straight axes cutting through existing plots.

The urban structure of Bordeaux thus relies on 3 patterns: one organic (irregular fabric), one functional (grid pattern) and one radioconcentric.⁴

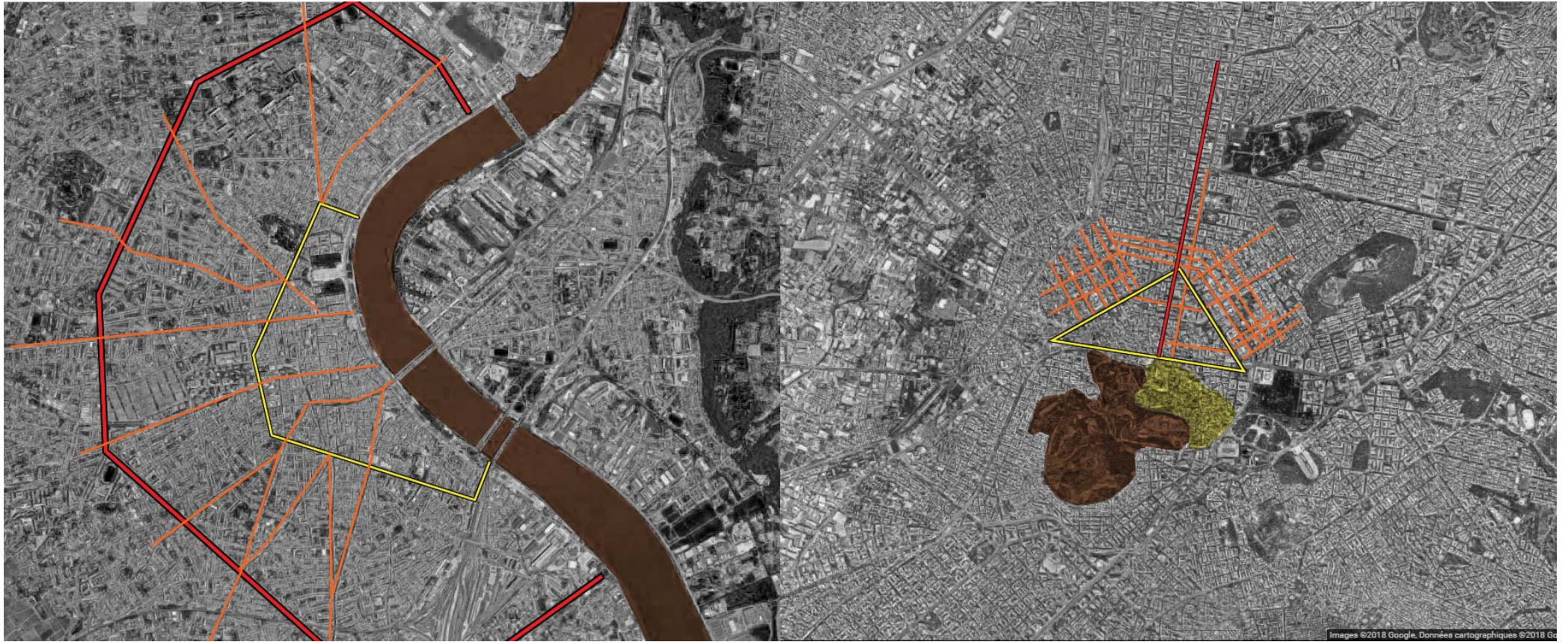
Athens, was built also on a radioconcentric way. During the domination roman period, it was a simple small city where the constructions often reused antic stones. When the city was reduced as a result of invasions, Athens was limited by the current Plaka neighborhood and the antic Agora.

Then, after the independence war against the Ottoman Empire, Athens became the new capital of the Greek state in 1834. But the city was half-ruined. The first preoccupation of Othon, first greek king, was to re-build the city, trying to find again the glorious past and to give the cachet of a modern capital. He appealed foreign architects with a neoclassic style who had a real interest for antiquity. That's why Plaka started to have some beautiful houses with a neo-classical architecture.⁵

In 1833, a new urban plan was also established with a direct influence from the neo-classic style. Thus, the new city incorporated half of the ancient one, and expanded to the West, the North and the East. Two major axes in the alignment of the Stadium and Pireos were defined and formed an isosceles triangle of which Omonia's place was the top.⁶




From this triangle, the network of the roads was developed in one hand on a radial plan starting from circular squares, and in another hand in parallel and perpendicularly to the major axes, still on a regular design, creating rectangular plots.⁷

The city is clearly drawn by steps, with organic axes (irregular) around the Acropolis inherited from its past, and then with a radial and straight-lined configuration from the isosceles triangle.



Comparison of the urban development of Bordeaux and Athens through history

Graphic scale  500m

-  Starting point
-  Main axes of the first phase
-  Main axes of the later phases

II- THE WATER AS AN ASSET

Historically, Bordeaux is an active centre of maritime traffic thanks to its wide river. It was used to transport metals, wines, oils, copper, pottery etc. Its harbor was always an important transit place between the Atlantic Ocean and the Mediterranean sea.

During the First World War, the port sites were used for military bases. Between 1939 and 1945, the commercial traffic decreased and was replaced by imports useful to the war industry.

Unfortunately, because of this industrial past, for a long time, the docks were inaccessible. They were filled of storage sheds surrounded by fences and big open sky parkings. Between the stone bridge and the train station, all those industrial installations blocked the access to the river. Docks were used for transit and parking⁸.

All of these reasons, gave a morose image to the city's landscape. The urban community of Bordeaux took the initiative in 1999 to organize a competition for redesigning the docks in order to re-connect the city with the Garonne. Michel Courajoud's project was selected.

Nowadays, the Garonne and its promenade along the docks allow to visually re-connect the left and the right side of the river⁹.



Picture of Bordeaux's docks- N° 1 in Annexes

It's a lively and breathing space in a city which allows the inhabitants to have rest and to see the water flowing. They create an intimate relationship with the river.

Close to the city centre, we come here to have a walk, as a meeting point, do sport with friends or family, admire the superb Place de la Bourse and its water mirror etc. A lot of events such as fairs, running, markets, transform the docks in an major asset for the city.

Athens and the water are also connected thanks to Pireos Port, but this time on a larger scale. Definitely this port is also an asset for the greek capital because it's a huge industrial commercial and touristic platform, but it doesn't have the same relationship than the inhabitants of Bordeaux have with the Garonne.

Pireos has also a marina but everytime I went there, I only experimented the Port as a transit area, inappropriate to have a good time looking at the boats. Indeed, I came just to take boats for the islands, so I didn't stay a long time there comparing to Bordeaux's docks. Moreover, the port is physically far away from the city centre, doesn't help the Athenians to consider the port as a meeting point.



Picture of Pireos Port- N° 2 in Annexes

In Bordeaux, we could think that the river, because of its brown color, is polluted. But it's not true. Actually, the presence of argile particles inside gives this color to the water. Nowadays, the pollution of the water is really limited because Bordeaux stopped its industrial activity. And the water flows provoked by the tides are playing an important role to evacuate as a «flush».¹⁰

We are conscious about the importance of the tourism for Athens' harbor, but now in Bordeaux, since a couple of year, the Garonne is also becoming a way to travel and to increase the tourism in the metropolis.

Unfortunately, because the attractivity of Bordeaux as a touristic city is undoubtedly growing, the number of cruises boats which are stopping in Bordeaux is considerably rising. In 2017, 53 stops were planned, 14 just in september. Because of that, the ecologists of the city are really worried about the pollution caused by this maritime traffic transporting flows of tourists with cruise liners.¹¹

According to Pierre Hurmic, a local politician from the ecologist party, those huge boats provoke a lot of air pollution. Generally, the cruise liners that stop 24h-48h, don't turn off the motors to still produce electricity. It's a real problem because the heavy fuel oil and the maritim fuel oil have a negative impact on the health. In 2015, he said that the heavy fuel oil has a sulphur content 3500 times superior to the one that we are using for the diesel in our cars.¹² He would like that the city thinks seriously about this issue for the respect of the environment.

In Athens now, unfortunately, a tragic event happened in September 2017. A 45-year-old oil tanker has sunk near the island of Salamina, about seven miles from Piraeus. It was carrying more than 2500 metric tons of fuel oil and marine gas oil.¹³

It's a pity for Salamina (second homes island) because it's already part of one of the most polluted zones of Grece. Indeed, it's located in front of the big port, the construction sites and Eleusis' raffineries.

The Greek authorities didn't lose time to clean up the fuel leaked which was spreading near Athens and the popular beaches. Directly, they banned swimming. The first thought was that the leak was contained to the area of the shipwreck but, finally it soon expanded to the coastline area known as the Athens Riviera starting from Pireaus until Vouliagmeni, including Glyfada. Voula Toutoutzi, local politician for the fishing, qualified this pollution as an economic and ecologic catastroph. Also the waters off Salamina are frequented by protected species such as seals and turtles which are endangered by this disaster.¹⁴

In both cases, either in Bordeaux than in Athens, we see how water is at the same time an economical asset but also a wickness when polluting acts are committed. We have to be conscious about the immediate and potential long-term effects of our actions into the environment.

III-BORDEAUX & ATHENS' URBAN SEAS CALM VS ROUGH

Nature plays kind of an important role in the way we feel about a city and when you arrive in Athens, one of the first things that you notice are the green hills and mountains surrounding you. It's so different from the so-called "flat city" of Bordeaux, known both for its invariant topography and its low buildings. Athens' hills and mountains are like islands emerging from the undulating sea of white buildings. You can see the buildings sinking slowly as they were following the stream of the streets flowing deeper and deeper.

From wherever you are, you can always spot an "island" in the distance, and use it as a landmark to find your way like the ancient navigators. Everyday, going up and down would awaken and revitalize the body, making you feel alive more than ever, unlike in Bordeaux where you are wandering mechanically, without really paying attention.

From Lycabettus, you can admire the big green "beaches" formed by parks and gardens, places where citizens can catch their breath, before going back in the city. However, because some green spaces are not correctly designed and also because of the economic and social current situation, more marginal people began to stick around athenian parks, which gives you a sense of uneasiness and insecurity, discouraging you to come back.

You can enjoy for instance the long path leading to the neighborhood of Thissio, in the lower part of the acropolis entirely public and surrounding by free nature and different kind of vegetation.

We can also find some of those green breathing spaces in Bordeaux, especially near the waterfront. Unfortunately, contrary to Athens most of the green spaces in Bordeaux are private, hidden behind severe white stone façades. Indeed, the urban pattern of the city is mainly designed by plots of city houses protecting in a "green-heart" constituting the private gardens of each house.

Fortunately, to talk about a precise example, the school of architecture in Bordeaux provides us a pleasant environment where classrooms are surrounded by landscape designed areas. This feeling remained when you arrive in the school of Athens through the pedestrian planted part of Tositsa street. We discovered a campus protected by plant screens and punctuated with small gardens connecting the school buildings. It's a perfect cocoon to study.

BORDEAUX



Picture of the view from the top of Bordeaux- N° 3 in Annexes



Picture of one of Bordeaux's streets- N° 4 in Annexes

ATHENS



Picture since the lycabettus- Made by Dupouy Sonia



Picture of one of Athens' streets- N° 5 in Annexes

IV- FEELINGS INTO THE STREET

A-The street seen in section

When we walk in the streets of Bordeaux, the feeling is completely different than the one in Athens. During the «beautification» period of Bordeaux in the 18th century, the intendants such as Boucher or Tourny started to draw straight planted promenades becoming later important axes of urbanization which are the boulevards. The city opens itself and the streets are drawn in the respect of the prospect rule and the vegetation is planted in a precise way.¹⁵

Thus, the buildings had to be aligned with a reasonable height. Indeed, wider was the street higher were the buildings surrounding it in order to let pass the light and refresh the air.

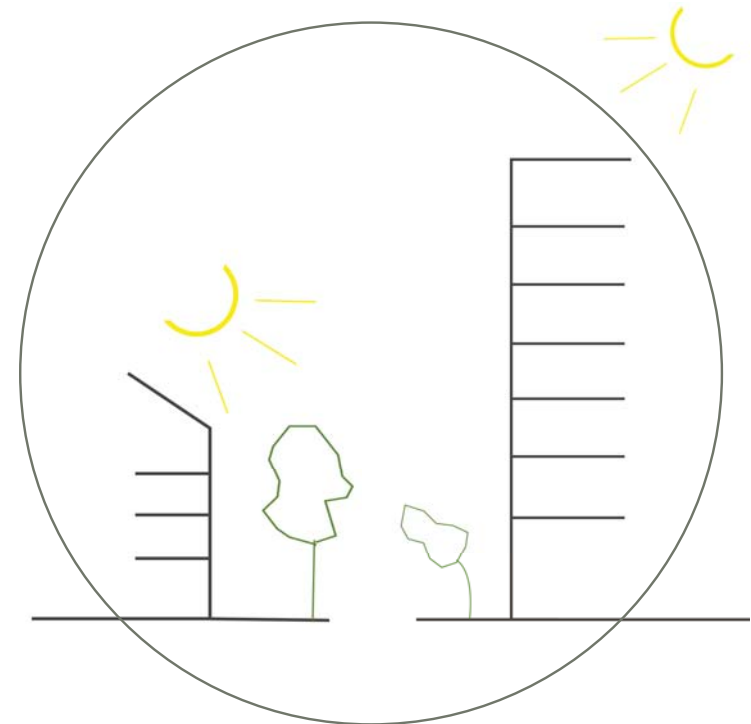
Athens is completely the other way around. Apart from the neighbor of Plaka, the city consists of very high buildings giving the sensation to be crushed reinforced by the narrowness of most of the streets.

In some places, as a pedestrian, you feel the bad effects that this contrast provoke on you. Often, the streets are dark and you smell a lot of air pollution. Indeed, the air can't be refreshed because it stays prisoner between the high buildings. The consequence is the creation of unpleasant micro-climates in the everyday life.

Moreover, the planted vegetation certainly brings a character more bearable to the streets but it is also a serious problematic. Trees are planted on the sidewalks which are not really usable. Pedestrians sometimes needs to walk in the car road because there is not enough space for them.

Trees go wild even in narrow streets. They tickle the high façades and bend over the road to meet each other, looking for some light.

The lack of light gives you the impression that trees are not growing as they would like to.



Sensitive section Bordeaux vs Athens

BORDEAUX

ATHENS

Sensitive photomontage



Cours de Verdun

Mame street

IV- FEELINGS INTO THE STREET

B-Two different ways of occupying the public space

More generally, French people attaches great importance to urban regulations. That's why in Bordeaux, you can feel it in the way shops and restaurants timidly extend outside on the street, afraid to exceed the limits they were imposed. It gives you the feeling of cleanliness, consistency, but also of a strict and bleached city. Furthermore, only a few trees show up in the streets, always perfectly cut so that they won't cause any harm to the inhabitants and drivers.

Whereas in Athens, yes, pedestrian areas are invaded by tables, plants and other furnitures, but it feels more spontaneous and it brings life to streets, and a particular charm to the city. It gives the impression that the Athenians are used to create micro-public spaces surrounded by vegetation (bushes, trees, flowers etc.) in order to protect themselves from the constant car traffic and the lack of space only given to pedestrians.



Picture of one of the bars in front of the docks- N° 6 in Annexes



A street in Plaka's area- Made by Dupouy Sonia

IV- FEELINGS INTO THE STREET

C- Two different ways of using balconies

(Graphs in page 14 Related to annexes 16,17,18)

You can feel a real contrast on how people are using their balcony between Bordeaux and Athens. Of course the climate is one of the reasons. If we look at some data of the year 2017 concerning three criteria: the temperature, the precipitation and hours of sunshine for each city we can prove that the climate is more clement in Athens than in Bordeaux.

Indeed, for instance, if we look more precisely on page 14, the medium temperature in July for Bordeaux is 22,1° instead of 28,8° in Athens. In January, the medium temperature for Bordeaux is 4,6° instead of 8,2° in Athens.¹⁶

Then, if you observe the total accumulation of the precipitations for one year in each city, we conclude that Bordeaux is much more humid than Athens. Indeed, in one year Bordeaux accumulates 746,1 mm of rain instead of 357 mm for Athens.¹⁷

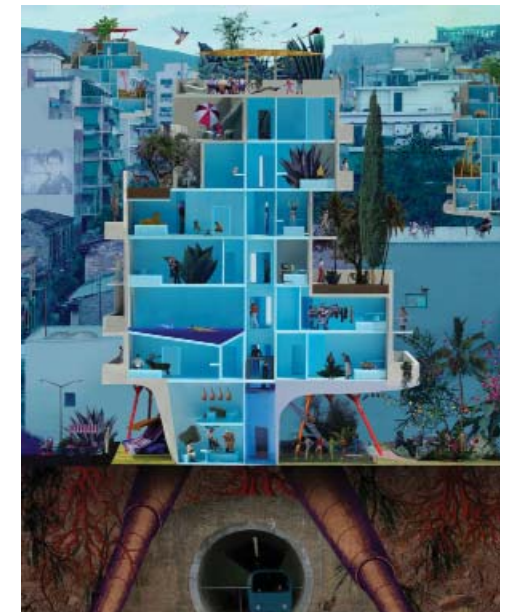
And the last but not the least, if we compare the number of hours for all the months we can see that it is only on April and May that Bordeaux has more hours of sunshine, respectively 281h and 271,2h instead of 236,7h and 226h for Athens.¹⁸ Otherwise, for the rest of the year, Athens is sunnier than Bordeaux.

If you walk in the streets, you notice that the high polykatekies are punctuated by larger balconies than Bordeaux and sometimes, with an accessible rooftop. So, thanks to the Mediterranean soft climate of Athens, we can understand why people are more living outside than inside. The collage of Karadimitriou and Maloutas, gives a quite clear image of how Athenians live.

You feel that terrasses, roof-top and balconies are the extension of their inside space in the outside one. Inhabitants decorate their balconies with overflowing (certainly to filter the air pollution and to fill the lack of vegetal public spaces) planters, and coffee shops' owners add some shrubs to bring life to their store. It breaks the cold feeling that mineral cities, such as Bordeaux, tend to convey. Indeed, the narrow balconies firstly designed in order to show off are today mainly empty, unused.

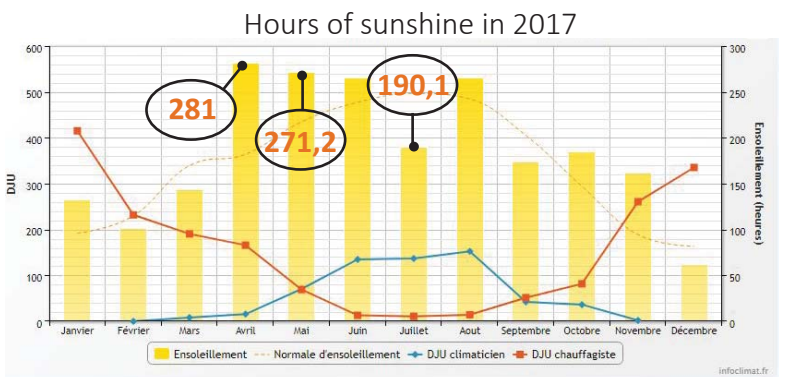
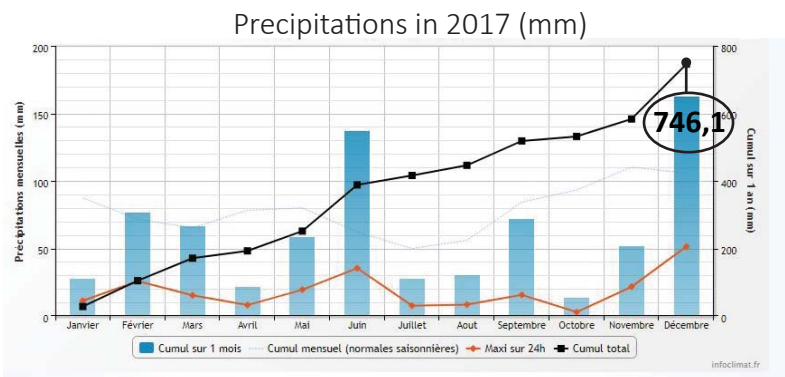
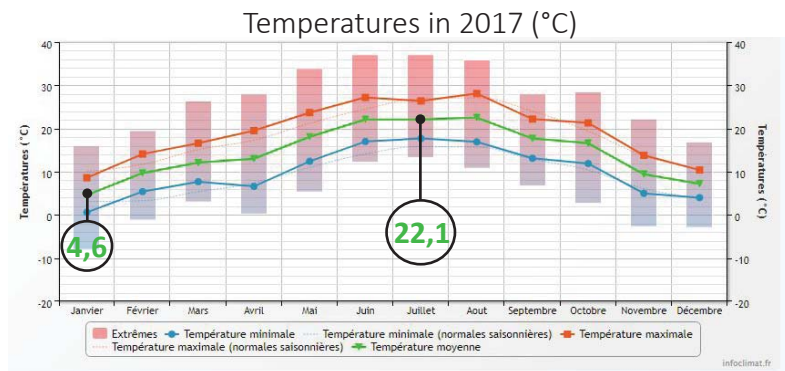


Cours d'Alsace in Bordeaux-
N°7 in Annexes

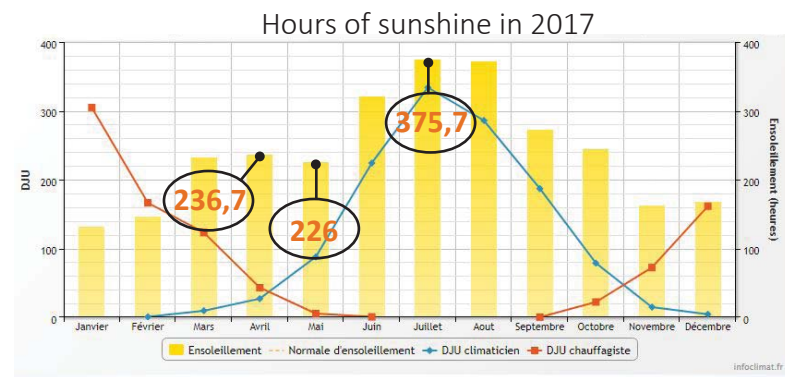
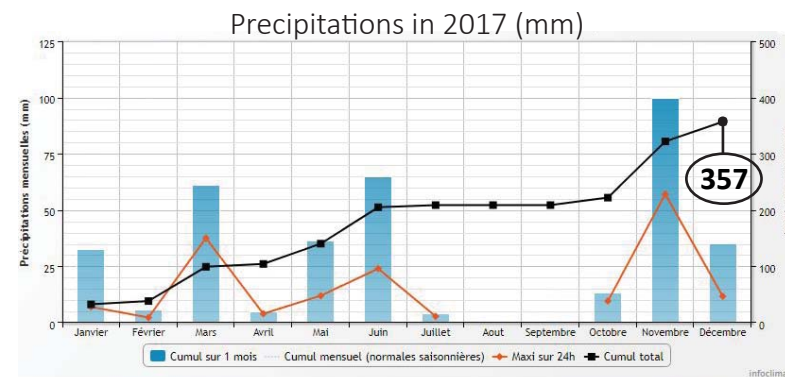
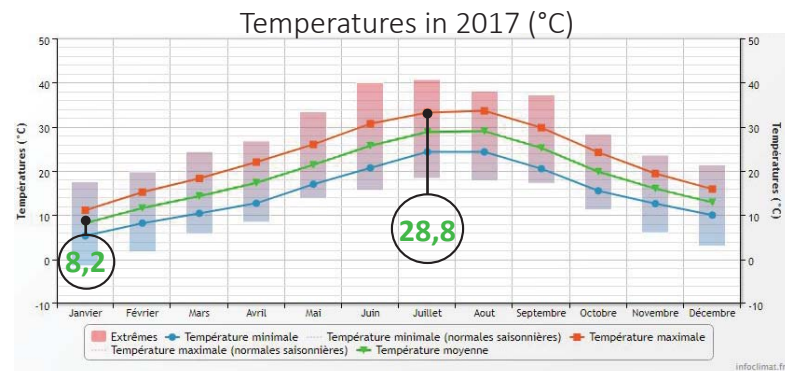


Karadimitriou & Maloutas 2002-
Point Supreme Architects- N°8 in Annexes

BORDEAUX



ATHENS



IV – WHAT ABOUT THE AIR?

ON THE WAY TO A MOBILITY 2.0 VS STUCK IN THE TRAFFIC OF THE PAST

Today, Bordeaux is part of the cities taking more and more initiatives to encourage a soft mobility within the city. Indeed, the tramway and its widespread network allow a lot of people to avoid the use of the car to move in the city centre and its periphery. And if people still want to use car, Bordeaux even has a rental system of electric cars spread across the city.

Here Bordeaux's flatness is quite an advantage since it is perfect to move by bike. Once again, rental systems are available for inhabitants who enjoy more and more this means of locomotion.

Moreover, it's really pleasant to walk into the city centre because a lot of streets are exclusively for pedestrians. Walkways are wide, regular and allow an easy circulation preventing people to interfere with each other. Furthermore, a lot of paved streets encourage cars to reduce their velocity. All those equipments reduce both the air pollution and the traffic noise within the city centre.

In Athens, we could say that most of the time the situation is the other way around.



Picture from the old stone Bridge of Bordeaux- N° 8 in Annexes

Apart from some pedestrian streets in the city centre, and some disseminated wide walkways, it's not that easy to move as a pedestrian. Unfortunately, car is everywhere, pollutes and gives itself the right to park on walkways, making the task even more difficult to walk. It feels like Greek people don't worry about the air pollution since most of them keep driving huge and old car models inappropriate for urban mobility. The car traffic, particularly during strike periods, is unbearable. We can smell all the gas oil escaping from tailpipes, and hear the noise so loud of their constant horn.

Moreover, unlike Bordeaux, Athens' high buildings prevent the noise from escaping, and even increase it by reflecting the sound on the walls. Definitely, Athens is a city with a variant topography, but still a large part stays flat. We could easily imagine nice bicycle lanes, wide walkways because all the potential is there to restore the balance between the different actors of the city. The atmosphere would be so pleasant if pedestrians and cyclists could regain their rightful place.



Picture in Athens Via Wikimedia Commons- N° 9 in Annexes

If we compare now the two cities with datas concerning the air pollution, we will see that there are similarities between the sensitive and the scientific analysis.

Of course, we can't ignore the fact that Athens concentrates much more inhabitants than Bordeaux (datas on page 3) so definitely they are not at the same level of environmental issues but it's still interesting to analyse them both concerning the air pollution.

To do so, we are going to compare the air quality index based on the concentration of the fine particles called Pm10 in the air, really harmful for the health. The limits for the protection of the humanity health are the followings: the concentration of those particules has to be 50 µg/m3 for the daily average. And it doesn't have to exceed 35 days per year or 40 µg/m3 for the average per year.¹⁹

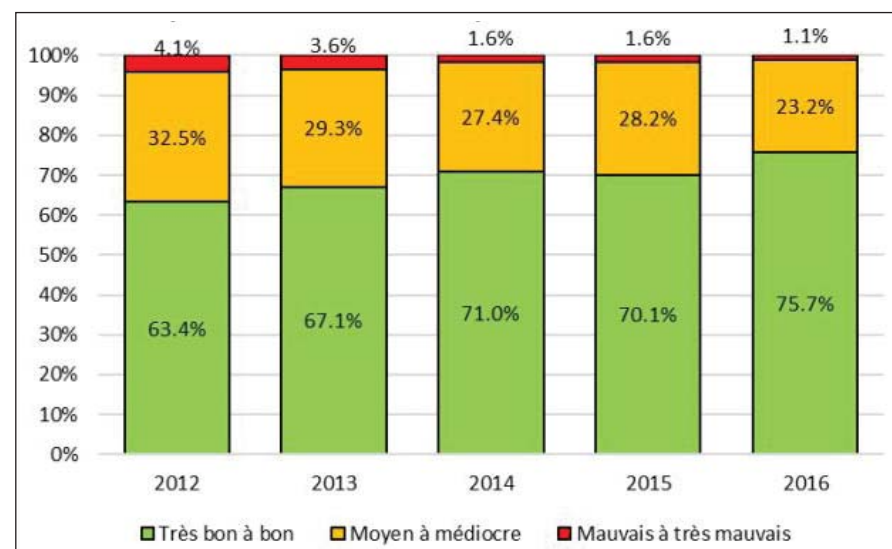
Indice ATMO	PM10	Niveau
1	0 à 6	Très bon
2	7 à 13	Très bon
3	14 à 20	Bon
4	21 à 27	Bon
5	28 à 34	Moyen
6	35 à 41	Médiocre
7	42 à 49	Médiocre
8	50 à 64	Mauvais
9	65 à 79	Mauvais
10	≥ 80	Très mauvais

The air is not harmful

The air pollution is seriously problematic

N°20 in Annexes

Firstly, if we look how the air quality changes in Bordeaux from 2012 to 2016 we can notice that the city reduced the air pollution. The percentage of the Indice ATMO from 1 to 4 (the green color) increased year-on-year. It means that in 2016 the air of Bordeaux was healthier than four years before.



Distribution of the air quality index since 2012 in Bordeaux N°21 in Annexes

Then, according to the results given in 2016 for the quality of the air, for the concentration of Pm10, Bordeaux exceeds the limits 35 days²¹. Athens, according to the review *We demain* exceeds during 90 days²² this limit which means that Athens is part of the cities where the air is the most polluted and dangerous for the health in Europe. Perhaps, this is an issue that the greek capital could reconsider because the major part of the population of the country is living there. More the population is, more the needs and the environmental issues are.

But as we said in the second chapter of the essay, Bordeaux has also to face some issues, concerning the negative impact of the maritime traffic. The organisation Atmo which studies the air quality, starts a study in April of the current year in order to have more information concerning the air pollution generated by the cruise liners.

Indeed, as we said, those boats don't have any other solution than letting the motors running to have electricity. Twelve extractions points are located all around the port. This study will end the first of June and the results will be known in September.²³

But definitely, if this touristic activity is growing more and more every year, we can do the hypothesis that it will have negative impacts on the health and first of all on the citizens that are used to have a walk, to meet, to do sport along the river.

As a conclusion, we could say that it was enriching to compare those two cities because through different angles and scales, from their urban fabric to the use of the balconies in the private space, we observed (through feelings and datas) that they were completely different.

To finish with a more personal point of view, I would say that I achieved the goal of my Erasmus. I wanted to discover a new way of life, a new climate, a new urban scale, a new language and Athens was definitely the key to reach this goal.

Even if the dissimilarities are important between the Greek and French ways of life, I never felt insecure or uncomfortable since I'm here. Indeed, I love the outgoing mood of the Greek citizens and the rhythm so proper to Greece.

To tell the truth, I feel more home in this Mediterranean city, warmer (socially, environmentally) than Bordeaux, a city which knows a phenomenon that we call «boboisation» since a couple of years.

ANNEXE- PAGE 3

Routard.com [on line] (consulted on 16/01/2018) <http://www.routard.com/guide/athenes/1942/carte_d_identite.htm>

Bordeaux- [on line] (consulted on 16/01/2018) <<http://www.bordeaux.fr/p287/bordeaux-en-chiffres>>

Population.City [on line] (consulted on 16/04/2018) <<http://population.city/grece/athens/>>

ANNEXES

^{1,2,3,4}Chantal Callais & Thierry Jeanmonod, *Bordeaux Patrimoine Mondial*, Tome 1, Geste, Octobre 2011

^{5,6,7}L Kallivretakis- Athens Social Atlas- Planifier Athènes au 19e siècle [on line] (consulted on 14/04/2018) <<http://www.athenssocialatlas.gr/fr/article/planification-au-19e-siecle/>>

⁸Chantal Callais & Thierry Jeanmonod, *Bordeaux Patrimoine Mondial*, Tome 1, Geste, Octobre 2011

⁹ Laurence Dequay- Le miracle des quais à Bordeaux [on line] (consulted on 05/05/2018) <<https://www.marianne.net/societe/le-miracle-des-quais-bordeaux>>

¹⁰ Jean-Paul Vigneaud- Les idées reçues sur la Garonne, ce fleuve que l'on connaît mal- [on line] (consulted on 09/05/2018) <<https://www.sudouest.fr/2012/06/17/une-garonne-que-l-on-connaît-mal-745564-2760.php>>

^{11,12} SudOuest.fr Bordeaux- Escales de paquebots à Bordeaux : les Verts réclament des mesures de la pollution [on line] (consulted on 20/05/2018) <<https://www.sudouest.fr/2017/09/01/escales-de-paquebots-a-bordeaux-les-verts-reclament-des-mesures-de-la-pollution-3740244-2780.php>>

¹³ Iliana Magra - Floating Tar, Dead Fish: Oil Spill Threatens Greek Beaches [on line] (consulted on 20/05/2018) <<https://www.nytimes.com/2017/09/14/world/europe/greece-oil-spill.html>>

¹⁴Tribunedegenève- Pollution après le naufrage d'un pétrolier en Grèce [on line] (consulted on 20/05/2018) <<https://www.tdg.ch/monde/pollution-naufrage-petrolier-grece/story/21784397>>

¹⁵Chantal Callais & Thierry Jeanmonod, *Bordeaux Patrimoine Mondial*, Tome 1, Geste, Octobre 2011

^{16,17,18} InfoClimat [on line] (consulted on 12/05/2018) <<https://www.infoclimat.fr/climatologie/annee/2017/bordeaux-merignac/valeurs/07510.html>>; <<https://www.infoclimat.fr/climatologie/annee/2017/athinai-airport-athenes/valeurs/16716.html>>

19 Respire- Association Nationale pour la Prévention et l'Amélioration de la Qualité de l'Air [on line] (consulted on 12/05/2018) <<http://www.respire-asso.org/particules-en-suspension-pm10-pm-25/>>

²⁰Wikipedia L'encyclopédie libre [on line] (consulted on 12/05/2018) <https://fr.wikipedia.org/wiki/Indice_de_qualit%C3%A9_de_l'air>

21 Atmo - Bilan 2016 de la qualité de l'air en NouvelleAquitaine [on line] (consulted on 12/05/2018)<https://www.atmo-nouvelleaquitaine.org/sites/eq/files/atoms/files/rapport_bilan_qa_2016_dept33.pdf>

²² Maxime Bourdier - Huffpost- Pollution de l'air: le palmarès des 100 villes d'Europe où l'on respire le mieux (et le moins bien) [on line] (consulted on 19/05/2018) <https://www.huffingtonpost.fr/2014/06/05/pollution-air-palmares-100-villes-europe-respire_n_5450549.html>

²³ Denis Lherm- Bordeaux : la pollution des paquebots mesurée à partir du 5 avril [on line] (consulted on 19/05/2018) <<https://www.sudouest.fr/2018/04/04/bordeaux-la-pollution-des-paquebots-mesuree-a-partir-du-5-avril-4343118-2780.php>>

ANNEXE- PICTURES

Maps on page 5: Google maps satellite views, modified by Mehiti Servonnat

N°1 - Rémy Martineau - Bordeaux : animations sur les quais [on line] (consulted on 16/04/2018) <<http://be.france.fr/fr/actu/bordeaux-animations-quais>>

N°2- Daliana IMO 7007265 Rodanthi Romilda and Marina GA Ferries docked Piraeus Port of Athens Greece [on line] (consulted on 16/04/2018)- <<http://www.asisbiz.com/ships/GA-Ferries/pages/MS-Daliana-IMO-7007265-Rodanthi-Romilda-and-Marina-GA-Ferries-docked-Piraeus-Port-of-Athens-Greece-01.html>>

N°3- Thomas Valadon- Rue89Bordeaux- CUB : le PS veut aussi expérimenter l'encadrement des loyers [on line] (consulted on 16/04/2018) <<https://rue89bordeaux.com/2014/09/cub-ps-plaide-lencadrement-loyers/>>

N°4- Laurène Philippot- Carnet d'escapades [on line] (consulted on 16/04/2018)- <<https://www.carnetdescapades.com/2017/11/visite-bordeaux-week-end.html>>

N°5 - Chris Goldberg - Cityscapes and Skyline Photos [on line] (consulted on 16/01/2018)<<http://www.skyscrapercity.com/showthread.php?p=142242112>>

N°6- Le Map Bordeaux [on line] (consulted on 16/04/2018) <<http://lemap-bordeaux.com/map-listing/vintage-cafe/>>

N°7- Loi Malraux [on line] (consulted on 16/04/2018) <<https://www.loi-malraux-immobilier.fr/programme-loi-malraux/bordeaux/252/21-cours-d-alsace-lorraine.php>>

N°8 Point Supreme [on line] (consulted on 18/05/2018) <<http://www.pointsupreme.com/content/research/athens-representation.html>>

