

## **ABOUT THE METROPOLITAN SPACE ABOUT THE DATA PROCESSING ABOUT THE SELF SUFFICIENCY**

Two situations are obviously concerned by the study :

1. Interventions in an existing Town
2. A New Town with all the implications the new technologies allow.

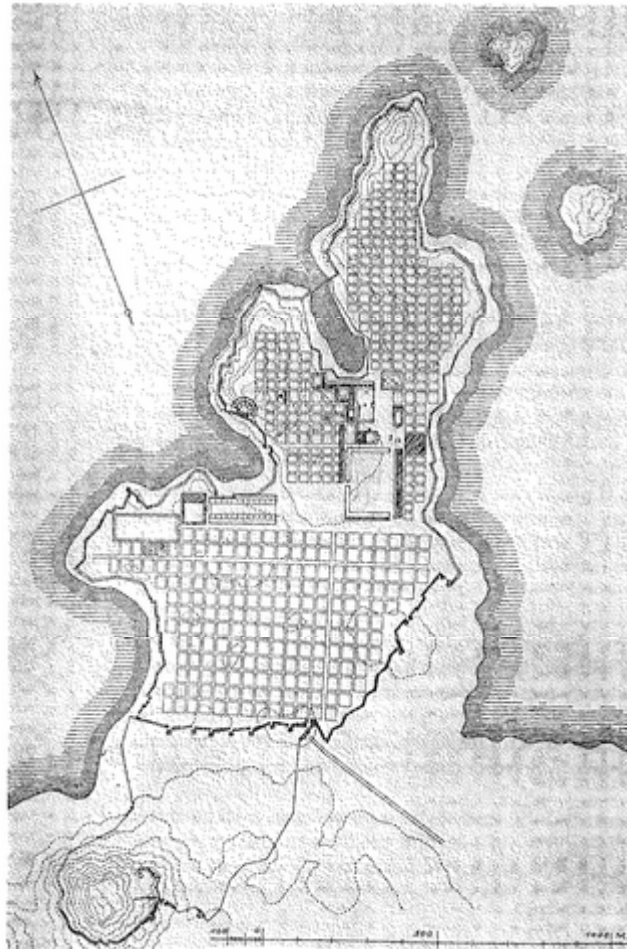
### **PRELIMINARY**

**In the way of progress arriving with the scientific research in no-polluting processes in industry and energy production we have to review :**

- the extent of urban territory
- the prior definition of a Town

In history, not about the town growing spontaneously, but the very premeditated formal pattern and social foundation - as an urban concept developing the perfect pre-established harmony – see **Hippodamus**.

**Miletus, Ionia, plan (Gerkan A.V. "Griechische Städteanlagen", Bodin 1924**



Completely destroyed by Persian in 494 BC the construction of the new Miletus begins 15 years later.

It is the first time the geometry and the countenance of the City are deliberately premeditated

The regular street grid leaves the possibility to a progressive way in building the City.

It is also the first time the idea of the practice of democracy is inscribed in an urban form. The restricted number of people living in the town gives to everybody the opportunity and the social obligation to take part in the government of the City.

This form of participative democracy arrives to perfection in the period of Pericles government in Athens.

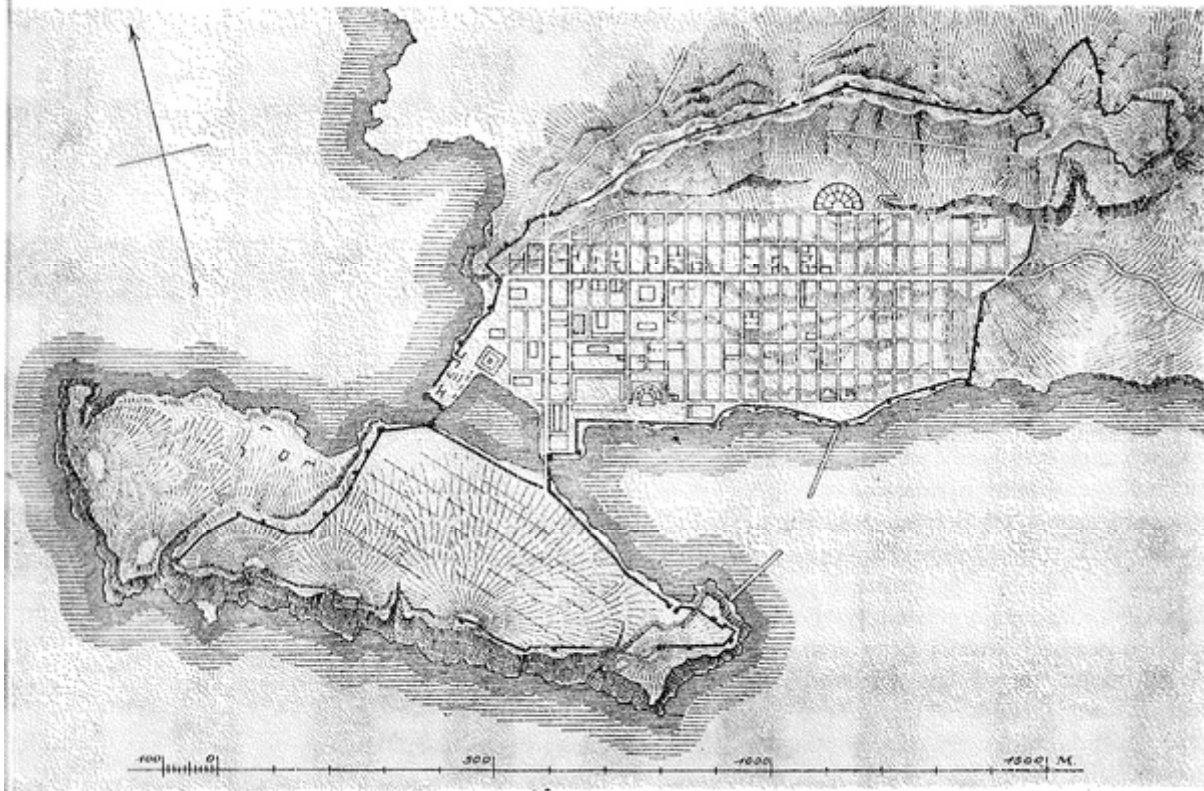
The political situation of Miletus and the permanent danger of invasion and Persian occupation incited people to leave.

A number of Ionian thinkers arrived at Athens after Xerxes' invasion, perhaps because the Vth-century Ionia experienced relative material poverty and was thus non longer an

agreeable place or perhaps, at first, they had escaped from the Persian army, into which they had been conscripted.

The 5<sup>th</sup> century BC Ionian who found his way to Athens was **Hippodamus of Miletus**, a political theorist who was famous for a theory of town planning. However, the laying out of cities on orthogonal, or rectilinear, cannot quite be his invention – such geometrical layouts are already found in Italy in the archaic period at places like Metapontum and later China. Hippodamus arrives to Athens and works for the plan of new Piraeus with its new harbour. The *agora*, principal space in the town, had his name.

#### Cnidus, Ionia, (Gerkan A.V.)



The best geographical position is linked up with the best topographic situation. The small rocky island gives the opportunity to build two harbours, a small military one on the east side and, in the west, a very big commercial harbour. The walls protecting the City are situated north on the highest point of the land. The City is perfectly placed on the biggest maritime ways from East to West and to North. Cnidus is one of these numerous cities which already disappeared with the new partition of the world.

The Hippodamian concept, more than its geometrical expression, contains a repartition of all social and political elements composing the city life.

When Hippodamus had established the idea of a Perfect City his project had a detailed and dimensioned plan of all functions composing the City.

Indeed, influenced by Thales, the division proposed by Hippodamus is consonant with the sense of geometry associated with a project involving all the society – an Ideal City.

The community is composed of farmers, artisans, warriors (the more numerous categories)

The functional plan is organized in three functions: sacred, public and private.

Litigations also are submitted to three different kinds of laws.

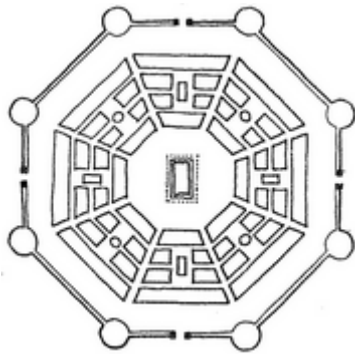
Farmers, living outdoor but considered as *citizens*, find refuge in the City in case of danger.

The direct heritage of Hippodamian idealisation can be found in some Italian cities 2000 years later. In Bologna, in the very beginning of XV<sup>th</sup> century, the archways all along the

streets in the centre of the town, in case of danger, protect farmers living outside the town but belonging to the urban community.

Renaissance in Italy, than in Europe and in America, was a real revival in conceiving a new and fortified town, very inspired by ancient Rome (see Vitruvius).

**Marcus Vitruvius Pollio** born in 70 BC. His work "*De architectura libri decem*" is dedicated to emperor Augustus. (Münter G. "*Idealstädte*", Berlin 1957)



Working for the best new way to fortify the town, Vitruvius proposes an octagonal wall which also protects of winds.

The plan here is one of possible interpretations of the detailed description, the graphic documents have disappear.

### ABOUT A CONTAINED TOWN IN A TEMPERED SPACE

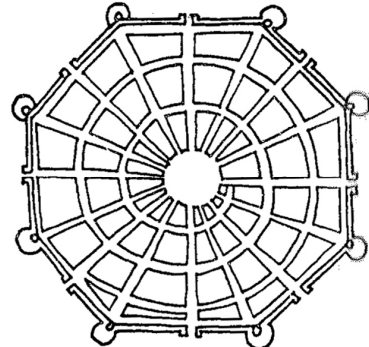
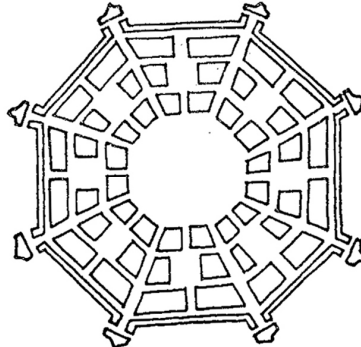
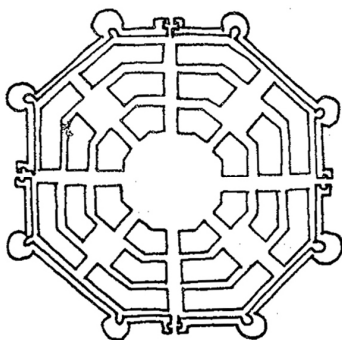
Influenced by Vitruvius and allways corresponding with the war and with different kind of arming serving the war, many architects of Renaissance looked for the best model for an Ideal City.

**Antonio Averulino (named Filarete) plan for Sforzinda (Münter G.)**



The relationship between the discovery of Vitruvius's work in the spirit of Renaissance but also the much more humanistic concept of being, less dependant of dogmatic way of thinking gave birth to a very new but linked to Greek and Roman antic way in creating space.

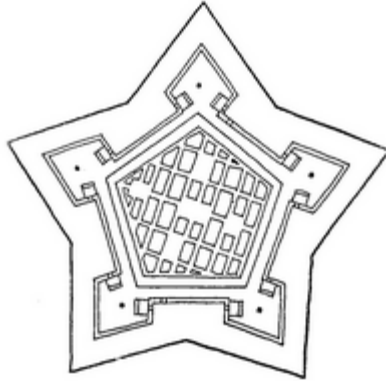
**Francesco Martini, three theoretical plans (Münter G.)**



Chronologically, the first Renaissance thinker and architect was Battista Alberti in his treaty "*De re aedificatoria*". The second but the biggest event was the invention of printing in 1450 by Gutenberg. Then the knowledge and its enlargement can play a very new game with the image of the universe.

Francesco Martini working in the end of XVth century was a builder of fortresses. In his "Trattato dell'architettura civile e militare" he divides his plans in three categories: radial, mountainous and checker-patterned. His radial model was positively influenced by Filarete, the mountainous one by Vitruvian description influenced himself by Platon, and the chess-board plan by Hippodamus.

**Pietro Cataneo, theoretical plan (Münter G.)**



Builder of fortresses Pietro Cataneo published his "Architettura" in 1554.

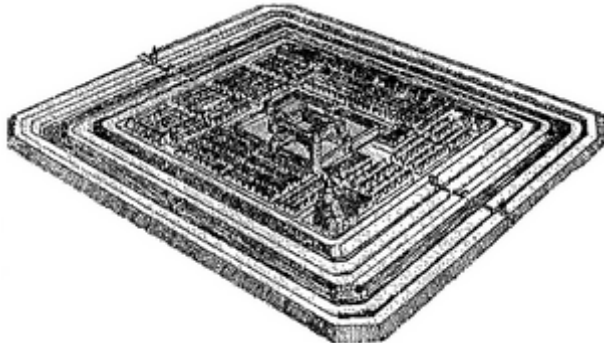
His plans of the City are always geometrical and the walls are adapted to the size of the town.

He left a lot of theoretical plans presented to-day in Galleria degli Uffizi in Florence.

## 1. THE TERRITORIAL AUTONOMIE IN THE PAST

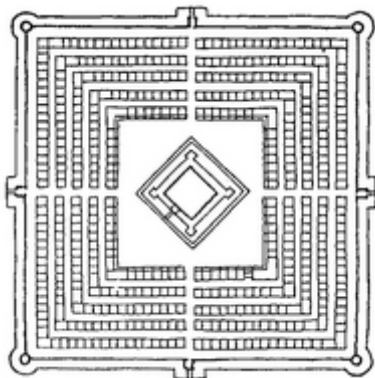
The walls protecting cities was necessary to discourage enemies and to insure its inhabitants. Staying protected in a limited space, the number of people living in the Town was defined by the physical obstacle the walls formation constitutes.

**Albrecht Dürer 1471-1528, theoretical plan of the City (Münter G.)**



After two years stay in Italy Dürer designed a serie of new towns which he published in the end of his life ("Etliche Unterricht zu Befestigung der Stett, Schloss und Flecken")

**Heinrich Schickhardt 1471-1624, plan of the City of Freudenstadt (Münter G.)**



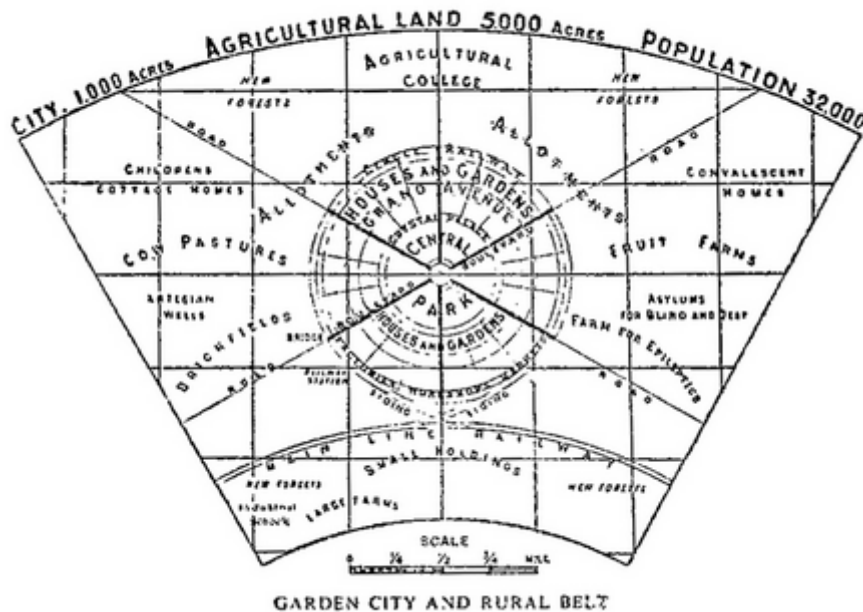
In 1599 prince Friedrich of Wurtemberg decided to build a new town for Protestants pursued by the city of Salzburg.

The City, destroyed during the 2<sup>nd</sup> world war was rebuilt. It represents a real geometrical perfection where all the functions are submitted to the purity of the concept.

For exemple, the church is invisible. Situated in the angle N-E of the central square, the church is composed by two naves forming a right angle in the place of the altar.

Once the *progress in arming* concluded and cannons finding their place in the museums, we don't need anymore to look for the best self-defending urban situation. It opens the space for an unlimited expansiveness.

**Sir Ebenezer Howard 1850-1928, founder of the English garden-city movement (Howard)**



In the 1880s Howard wrote "Tomorrow: A Peaceful Path to Social Reform" and published it in 1898 and in 1902 as "Garden Cities of Tomorrow". He proposes the founding of "garden cities" – each a self-sufficient entity – not a dormitory suburb – of 30.000 population. The idea was to reverse the large-scale migration of people from rural areas and small towns to cities which were becoming overpopulated. Howard's Garden Cities were intended to provide rural districts with the economic opportunities of large industrial cities. He persuaded practical businessmen that his idea was "financially sound and socially desirable" and founded during his life two garden-cities: Letchworth in 1903 and Welwyn Garden City in 1920. But the idea of a perfect relationship between people living in the centre of the new town and the zone of farmland could not resist and the number of 30.000 has increased so rapidly that the proportion of two zones could not be maintained.

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## 2. THE EXPRESSION OF THE ANTI-CAPITALISTIC IDEOLOGY IN THE URBAN PLANNING IN THE BEGINNING OF XXth CENTURY

First was the industrialisation and the appearance of a new *class of workers*, then some revolutionary movements as 1789 in France.

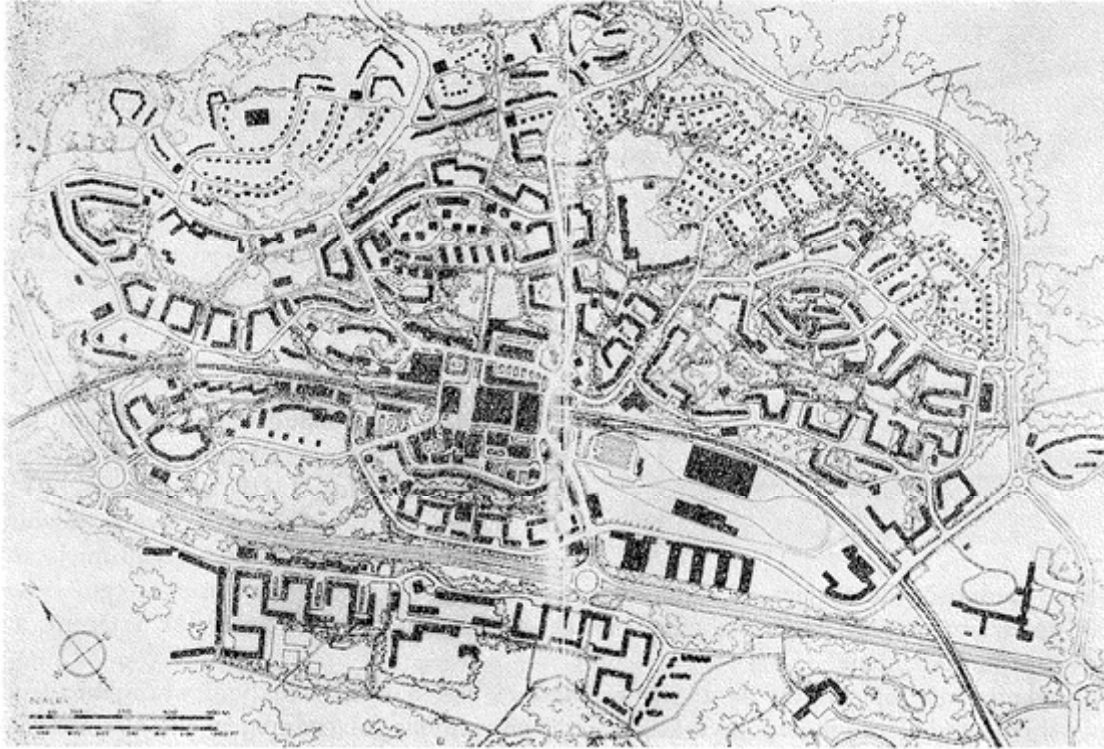
The October Revolution in Russia in 1917 had, at the beginning, a very ambition in the renewal of urban form in a new social situation. The new way of life in the new social pattern had to express its new organisation in the town space.

But some economic problems, a lot of social problems, the delay of lateness in industrialisation and some infantile illness in the new social situation, some errors in the consideration of the style (style of life and its esthetical expression) between the *petit-bourgeois model* and the proletarian artistic ambitions.

In result the most *bourgeois* model was retained as the expression of a proletarian victory on the urban space, the less revolutionary possible – the defeat and the manifest failure in the interpretation of the revolutionary mind and disposition.

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#### Välingby, Sweden, a new town builded in years 50



Sweden escaped the catastrophe of the second world war. A low density of population, a good economic situation, a high level of life, the traditional good professional formation associated with the idea to build a new town...

The new settlement named Välingby took place not very far from Stockholm.

Was it a reaction to the tendency of geometrical planning influenced by Hippodamus, by Italian Renaissance or by the Charter of Athens ? Out of the geometry of the railway station in the centre, the style of the town of Välingby is so romantic, so sentimental with its tracing of streets and gardens...

The liberty in implantation of buildings is associated with all functions necessary in the town: shopping, Town Hall, theatre, cinema, restaurants, coffee bars, library, offices, church, meeting-hall, parkings outside, garages...and housing, from the highest to the lowest.

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The very spectacular development of transportation insure us to have what we need everywhere.

Any obstacle to extend cities, *any modesty* in the way of using space.

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### 3. THE TODAY SITUATION WHERE THE TERMS OF GLOBALISATION AND MONDIALISATION REPLACES OTHER NOTIONS

and the only distinction divides the world in two categories: the poor and the rich (with the subdivision of poor countries or regions in two categories: those who possess mineral goods and others). And we live in this *simplicity* everywhere !

## **AND NOW**

Someone, probably, looks for the space each person needs to walk, to sit-down, to sleep...  
Then we have to add the very gesture our activities need.

Then we superimpose all this multitude and we obtain the *density*.

... the caricatural functionalism ...

Then we ask ourselves on how to create some new frontiers between urbanised space and, eventually, the pasture our cows need (if, ever, we need milk or meat).

In some places we are more numerous, but our capacity to move in the space stays more or less identic.

We can improve public transportation and imagine the distances become shorter. Even in this exercise the limit exists.

We have to legislate.

But it is not very easy.

We have to invent new laws, a very sophisticated range of conditions each territory needs to accomplish all the necessary functions the urban space has to achieve obtaining conditions to be named TOWN.

Here we are,

and it is not figuratively...

## **IF WE HOPE TO CONTAIN THE TOWN IN A TEMPERED SPACE WE HAVE TO DEFINE AT FIRST ITS COUNTENANCE :**

1. social
2. politics – national, regional or departmental institutions
3. the subsistence of the common life divided in two categories :
  - A. physical qualities
  - B. economic qualities

### **A. PHYSICAL PROPERTIES**

1. easily accessible lodging
2. health service
3. teaching, from the very first to the highest level
4. distribution of goods
5. leisures :
  - a. each day pleasures
  - b. exceptional events

### **B. GOVERNMENT OF THE CITY**

1. City head office
2. governemental representation ( state, region )

### **C. ECONOMIC QUALITIES**

1. Employment

Various forms of productivity

- a. serving directly the inhabitants
- b. on the regional scale
- c. national and international trade

### **D. PHYSICAL STRUCTURE OF THE URBAN TERRITORY**

Preliminary definition of the urban scale (numerical).

The urban concept is based on all knowlegde we have about the borderless production of energy using new technologies, for water and air as well.

It surpresses and abolishes the frontiers between the various activities and limit the distances witch separe them by a long tradition.  
By definition we are speaking here about a large Town.

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Different cases appear:

### **1. INTERVENTION IN AN STRONGLY URBANIZED TOWN**

Here we have three different kinds of medical (surgical) interventions :

1. Plastic surgery - embellishment – see: improvement in looks
2. Orthopedical surgery – interventions in structure
3. Gastro and intestinal surgery – modifying fonctions

to be studied, case by case, theories don't apply to existing urban situation where we have to contain and to densify the already very dense.

### **2. A NEW TOWN**

We will enumerate here some fondamental elements in planning :

- functions,
- metropolitan space
- programming and its limits

and, first, the view point on the self-sufficiency

- changing caracter of function's urban and architectural expression,
- *rational* implantations and its instability
- capacity of adaptation or adjustment to the new conditions (way of life, production)
- planning and its variety as the insurance against daily excessive migrations
- system of public transportation – travelling by rail ( street-level, underground or elevated )
- the association or twin location in production and decisional functions
- the disappearance of the old division of functions by a generalised use of all the new anti-pollution technologies
- the generalised introduction of the scientific research in the field of no-polluting energy – the only way to shorten distances and to surpress the very (too) long way between the merchandise, goods and its consumers – with no restriction, from the largest to the smallest – from the energy for a metropolitan space to the smallest bowl of rice.

The new form of concentration, thanks to the new technologies will definitely not resemble or look like the functional divisions due to old technology of production in which the old-fashioned industrial answers are out of fashion.

In the very beginning we looked at first for the defensive caracter of the place to implant the City. The visibility, the amability, then a good land to farm all around, the presence of well protected water out of danger if attacked by enemy.

We have now to defend ourselves against the apparent facility to do and to have everything everywhere. The town is not a dormitory.

The very moment of technological knowledge of today has to be present in our research in the new image of the time. But it is not only to look on what we know about planning towns at a time we have to invent it, but the very way to imagine the City new life can be.

One's more we have to look to the past and to judge if there is some similitude between our needs today and the history of our settlements in the past.

Living in a big town is an everyday surprise in the exercice to be alone and together simultaneously.

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## THE SUBSTITUTION OF THE CONCLUSION

The planification is more necessary than never.

Before or first of all we have to decide what we want to obtain.

Is it the town representing all our activities: living, working, enjoying, learning than teaching, be born, grow up, die...?

Or, if we decide to do it partially, eliminating some functions and keeping some others, we can ask ourselves if we are still working for a town.

And once more we turn our regard to the past.

The very close past or an older one.

And we still see that we need, at first, to know what we need and put forward as a pretext that would be like some idealisation of urban life coming.

At the very beginning was the specialisation

The peasant producing wheat or rice finding in the town the consumer; the baker baking bread, the shoemaker, the dressmaker, the metal-worker, the teacher, the doctor – all of them needing each other... and standing all together because of common needs...

Then people urbanize the district and make it more like a Town or a City.

The roads going from one town to another giving the opportunity to find something new...the very beginning. The war and the peace – the idea of defensive space closely linked to the urban conception.

The image of a new town today does not express any political or social implication.

Stay the everyday gesture to accomplish, to live in, or to endure it

In our today *simplicity* in social and political trade,

In this out-of-implication position,

In this very situation of globalising and mondialising all our activities and (who knows) all our ambitions, we have to ask what kind of power persists and keep its first function which is to do and to take the best decisions in the well-being of the society on the whole.

Something like a general view of what is good for us.

Forgetting all we know about technology we have to choose the best climate (the best atmosphere) for our City: relief, winds, meteorological surveys, water resources, the nicest landscape to admire – because we need to breathe, to drink, to move, to love, to meet friends, to work and to enjoy it...

prof. dr. Alicia Listowski, architect, urban planner  
2008, Paris, France

