PROBLEMS AND SOLUTIONS OF ENVIROMENT AND URBANIZATION IN THE WORLD

I – THE PROBLEMS OF TODAY

While demographic data still shows a world population growth one can see that unbalanced trends are destroying human cohesion and building social exclusion in cities and regions. MAIN ISSUES – STRONG MIGRATION FLOWS; INCREASE OF DEMAND ON METROPOLITAN AREAS.

Another side of the problem is the permanent increase of demand of nutrients and other resources while most of them are locally becoming less and less. OTHER ISSUE – CONGESTION OF MARKETS, UNEVEN DISTRIBUTION OF OFFER AND DEMAND, HOMELESS PEOPLE.

A third problem lies on technology development with large impacts on environment, employment, on economy and on social aspects, bringing UNBALANCED EFFECTS on them, very difficult to deal with.

A fourth question lies on the rapid changes of mentalities and beliefs, through globalization and the world-wide spread of information, where most PEOPLE IS LOOSING A SCHEME OF HUMAN VALUES, getting confused and becoming an easy target for marginalization, drug addict, crime… or suicide!

As a result there is a rapid growth of panic in big cities and metropolitan areas, destroying their character of a "space of an integrated social relation" and bringing instead the walled condominiums and street crime. ISSUES: SOCIAL CONFLICTS AND CRIME, ATMOSPHERE OF FEAR.

II – THE PLAN

As intelligent beings, human communities have to become conscient of the problems, study them and take the policy measures to face them on a positive way.

One needs to forecast the evolution of communities and their settlements through a method of projection, looking for a plan and a strategy to fight the negative trends and to enhance the positive sides and take creative new ideas. This plan will bring a new forecast, based on the trends but also on the citizens will and on the means put at the plan disposal.

Plans have to understand the systemic nature of development and to consider all the aspects for city and regional planning.
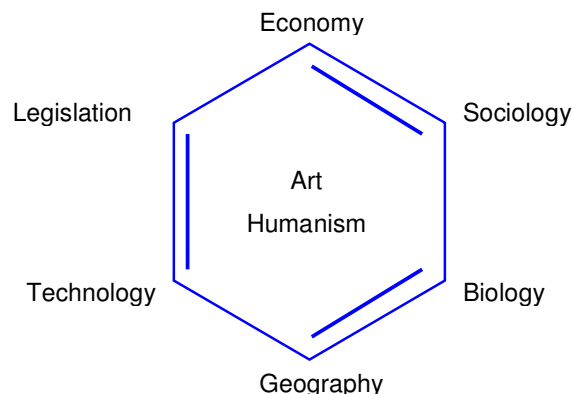
Taking in account so many aspects, the elaboration of plans asks for a team work, a scientific interdisciplinarity and its political frame, plus citizen's participation, having in mind the two main postulates for development planning:

> **Respecting Nature**
> **Human Solidarity**

The process reaches a state of
TRANSDISCIPLINARITY
through planning.

Plans

Planning
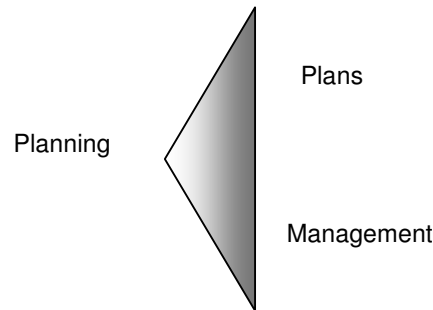
Management

Where:
Planning without a specific management policy opens the possibility of impacts that would betray the plan.
Planning without the presentation of the plans is not democratic and eliminates the involvement of stake holders and citizens.
Elaboration of plans is difficult because of natural differences among the methodologies of each partner.
Experience show, the advantage of having two separate roles, bio/physical in once side and socio-economic in the other, but strongly coordinated.

Development Planning

Bio-physical   Socio-economic
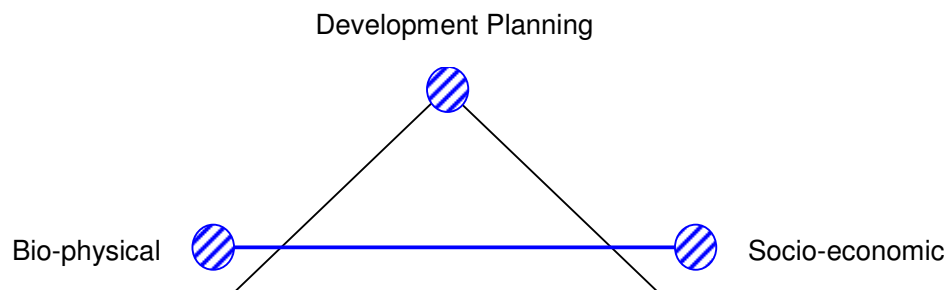
It is important to analyse what must be the planning management:
1) **Administration organization and public powers**
2) **Human rights and land ownership rights and duties**
3) **Strategy and programming (available resources)**
4) **Monitoring (scientific support)**
5) **Sectorial Services, ONG stake holders involvement and citizens participation**

Bio-physical issues briefing us to territorial plan methods but they ask for a previous definition of a strategic delimitation of the
PLAN – SPACE (let us say the space A)

Assuming that one is able to settle the physical limits of the Plan-Space (what is on art and a scientific problem) it is important to consider the need of framing that space on the bigger plan-space where it lays (let us say B). And may be it will be useful to also consider the bigger plan-space where they both belong (C). And so on. The opposite exercise in to discover the smaller plan-spaces where detailed plan has to be launched.
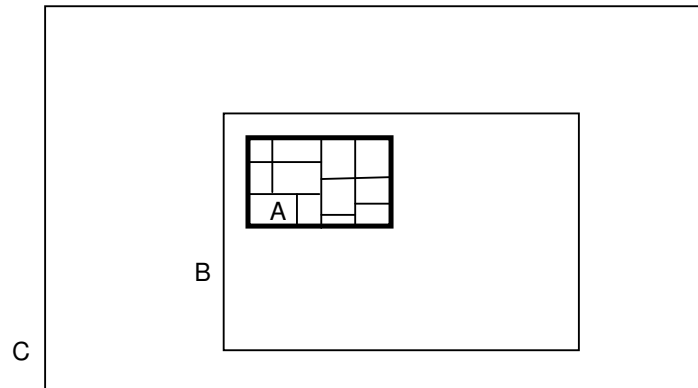
Both studies of larger areas could bring inter-actions to the plan of A.

Delimitation of plan-spaces is very important as it always have some influence on the solutions or even on the possibility of finding one. This is why professionals frequently work with more than one plan-space, using them as exercises to get the better understanding and the better conditions to solve the problems.

Besides the need of a multi plan-space to study a territory and its plan, also the time horizon asks for a multiple target:

Short term planning horizon
Medium term planning horizon
Long term planning horizon
Very long term planning – VLTP

The time could respectively be 5, 10, 20, 40 and more years.

A plan cannot choose one of these horizons. We have to consider all of them

In any case, a plan always needs a STRATEGY for its implementation.

III – WHAT IS HAPPENING? WHAT IS WRONG?

- People having no shelter…
- Vacant houses (no demand for the offer)
- Empty traditional town centres (the car)
- Polluted waters
- Polluted air
- Traffic congestion and no parking available sites
- Unsafe traffic
- Crime, city social risk (fear)
- Land overuse, spoiled city silhouette and identity
- Too much noise.

IV – THE PEOPLE AND THE EDUCATION POLICY. <u>PROFESSIONAL PLANNERS</u> – PERMANENT EDUCATION

Planning is a civic attitude able to avoid conflicts but sometimes there are conflicts that came within the exercise of planning. The real origin of the conflict is not the plan that the conscious of it. As conflicts can be minimize if one knows them earlier it means that plans contribute to minimize conflicts. Further more, planning includes a method of conflict resolution through active mediation. It is the 3[d] solution method. Facing two opposite opinions – black or white, the active mediation refuses to choose one of them and also a compromise between the two. It answer is to look for a 3[d] solution, a proposal outside the scope of existing alternatives, putting a strong effort on the search of 3[d] solutions, a creative solution bringing a completely new idea, unexpected but fitting the real needs.

Getting for people a planning attitude, meaning capacity and will for citizens participation and a strong wish of agreement, then planning become easier and more effective.

To increase citizen's planning attitude it is necessary to educate children from early teaching, starting at 7 years old with the teaching of walking, running, climbing ramps and going down the hill, crossing roads, respecting flowers, considering traffic lights and other signs, helping and asking for help on the street, etc.

At 14th years old, one can expect that students will learn about technical infrastructure, the origin of water supply and its types, the nature of technical infrastructures, the understanding of maps to find a place or a street, etc.

Furthermore it is important to explain the meaning of land ownership and the social nature of civil rights and of sustainable development, taking in account the rights of nature generations.

Planning is therefore contributing to a mentality of peace, of getting agreements, of looking for 3[d] solutions. The PLAN is the democratic tool of planning, allowing transparency and participation.

As a synthesis one can see planning education as a model with many entries centred on Art and Intuition, an ever-ending activity, without rest, using all the ways-through to get the right answer to the right question:
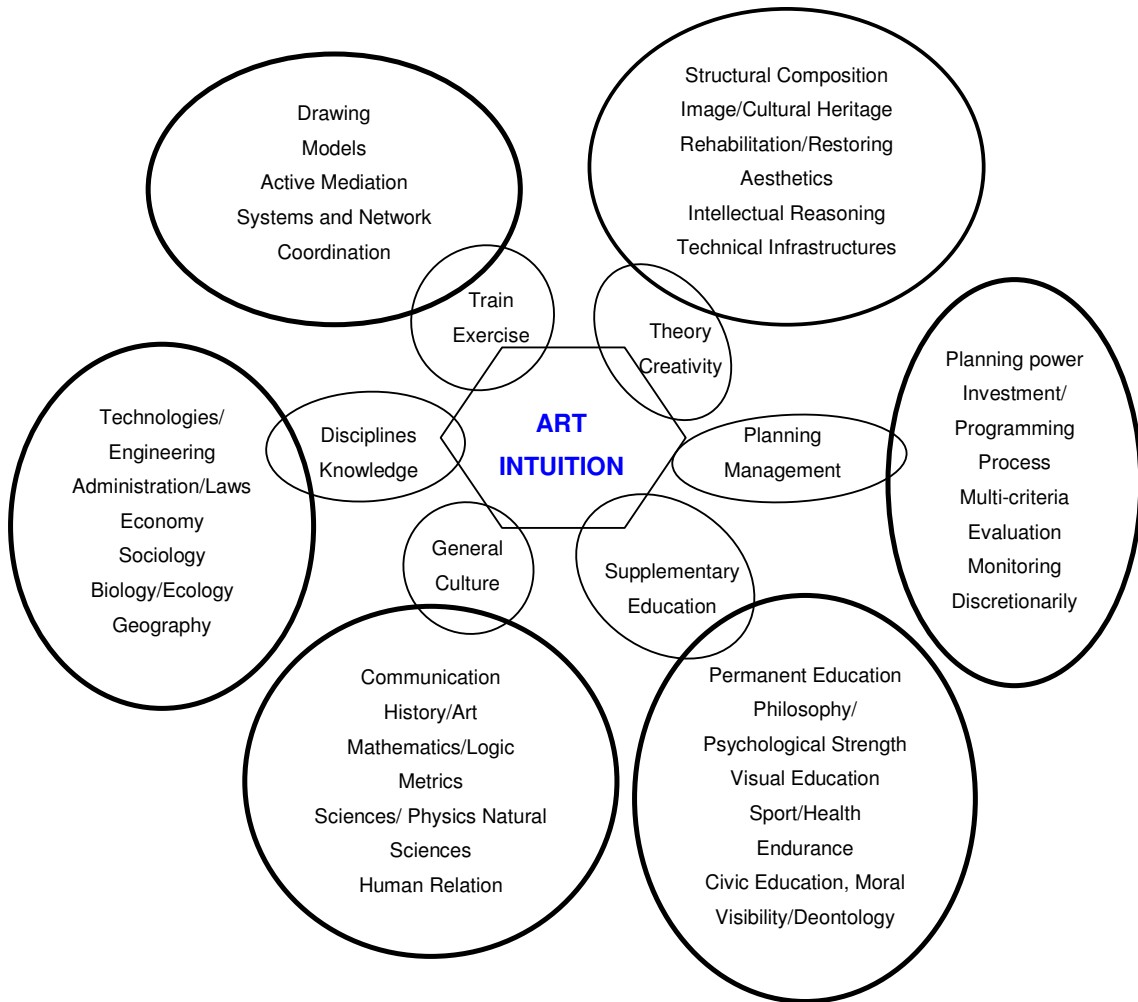
IV.1 – Permanent education

Planning needs a strong physical professional support and senior professionals need a highly demanding education. Citizens also need a broad education in general. City development in order that participation of people will become possible, effective and bringing

all the people to a common goal – providing life quality in cities, for everyone and on a sustainable way.

Permanent education seems to be the answer, either for professionals or the population in general.

I suggest a scheme like this:

7 years old – children will be informed about city risks and potentialities, how to walk and how to cross the streets, how to follow instructions of agents, traffic lights and signs, how to get help, how to get water, food and devices to communicate. Also how to be kind towards disable and wild life, or aged people, how to respect flowers and greens, how to amuse themselves and how to watch things happening around them. This teaching would be for everybody.

14 years old – students will be informed about maps, about contour-lines, about distances, about transports, about organizing a city trip, about evaluating a townscape and reporting about what one see and feel on a city fabric. Also about altitude, rivers and floods, sea and erosion, risks and civil protection. A bit of City History will help.

17-19 years old – Course on urbanism: mapping, statistics, GIS, houses location (climate and energy), subdivision, slopes, streets and roads, green structure, social facilities. Having this two years, students would get a certificate to enable them as surveyors and maps producing helpers.

19-21 years old – Continuation of the previous 2 years course, becoming town-planner junior having to learn the main disciplines for professional planners and to train design and getting an art approach.

21-22 years old – Master course (continuation of the previous course of two years).

At that time 22 to 28 years old professionals are expected to follow their normal professional life.

28 years old – Advanced town-planning studies (senior), or PhD with two or three years more to elaborate a final dissertation. Training of dialoguing and image design.

42 years old – Refreshing course or chosen subject specialization within urban and regional planning.

56 years old – Up-dating – certificate of up-dating or new specialization within urban and regional planning.

70 years old – Up-dating and use of new tools or preparation to write papers or to give lectures on matters of his/her experience to younger professionals.

84 years old – Eventual preparation to give lectures or papers on maters of his or her experience, or reconversion towards another area: children education, agriculture, botanic activity, social help and civil protection.

This education activity could combine some of the attendants of different ages in order to optimize the results, always underlining the bridges between subjects:
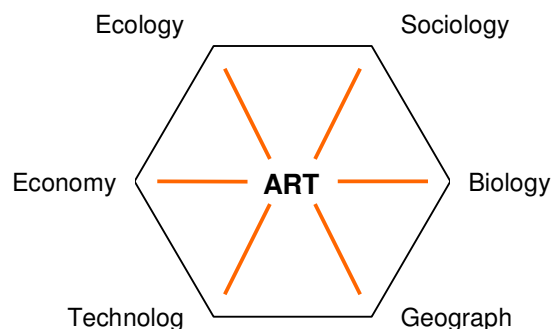
The main subjects for professional education would be:
- History of City Planning,
- Evaluation of alternatives (multi-criteria),
- Writing reports and messages, dialogue and oral presentation,
- Training of city design and messages illustration (images),
- Training of structural design and models development,
- Metrics and meaning, economic framing of city development.

The 19-21 years old junior's course will include these disciplines:
- Geography and GIS,
- Ecology and Natural Values,
- Sociology and Citizens Participation,
- Economy and Development Policies,
- Administration and Management,
- Urban and Regional Engineering – Technical Infrastructures Network;
- Cultural Heritage and Art.

plus studio training on composition and drawing and on comprehensive synthesis.

Human dimensions to be considered on urban and regional planning:
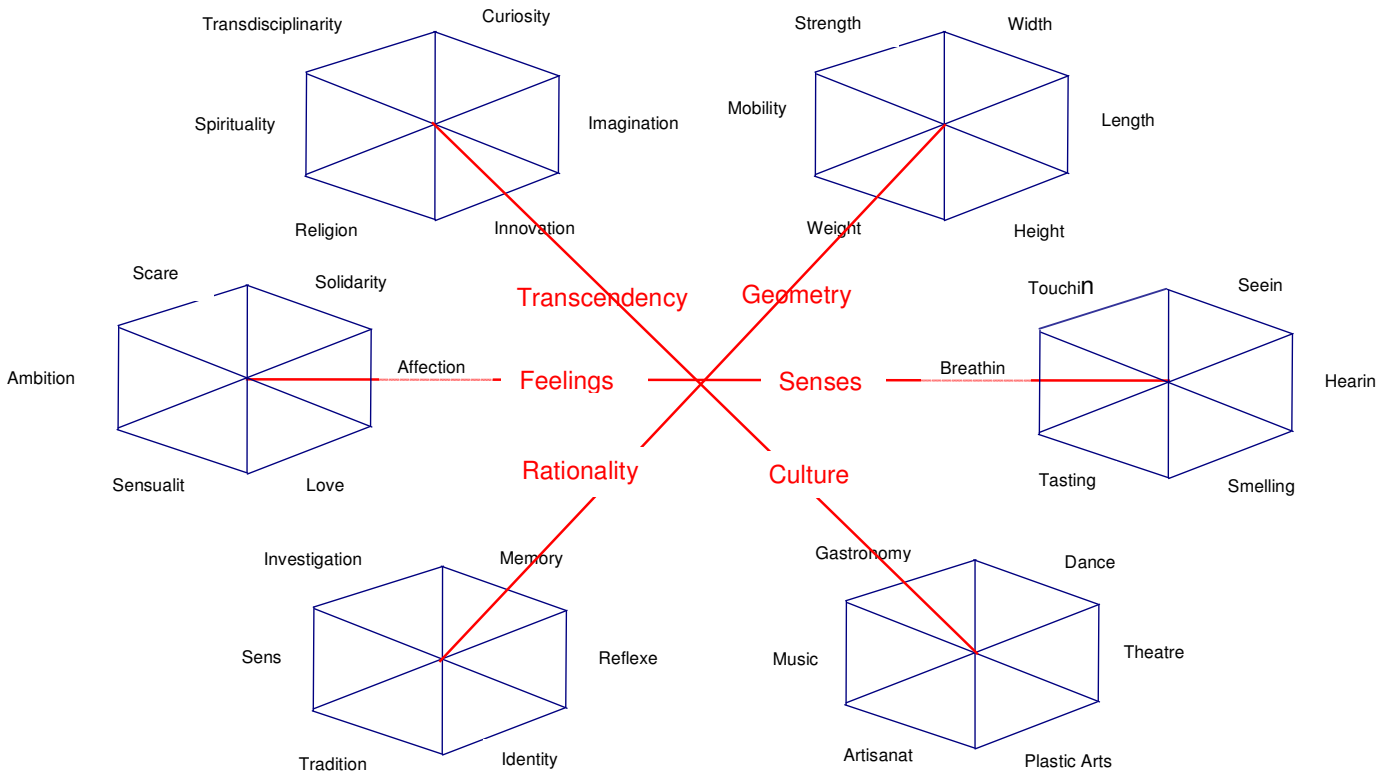
V – PLANNING CULTURE

Knowing the problems that mankind have to face, knowing the capacity of planning to deal with issues and having a citizen planning education it is possible to build a planning culture, a way of anticipating difficulties, of looking for solutions and of solving conflicts, avoiding war!
Looking to History and making scenarios for the future one can remember the trends around the world and arising from the Mediterranean Civilizations. To be quick one can use simple diagrams:

1) Great civilization developed around Mesopotamia between the Hindu planes and Nile River.
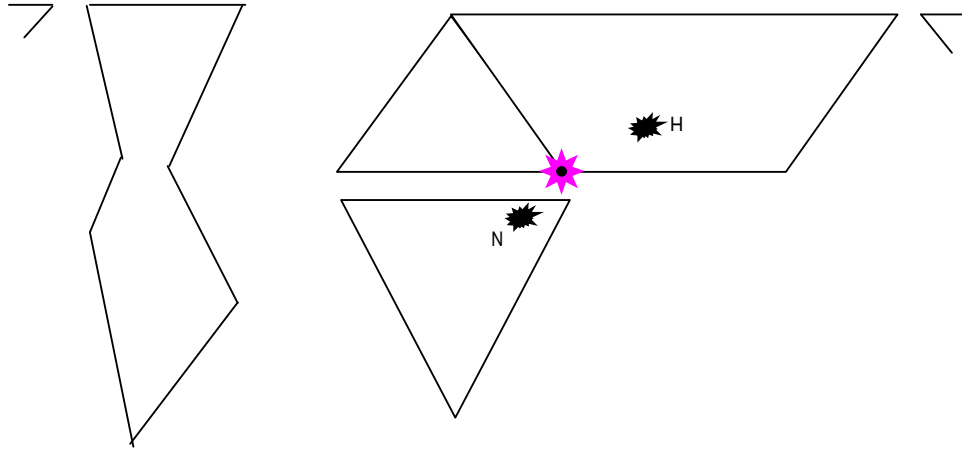
2) From this civilization centre, migrations looked for space to east and to west (avoiding very cold of north Europe and the very hot of Africa).
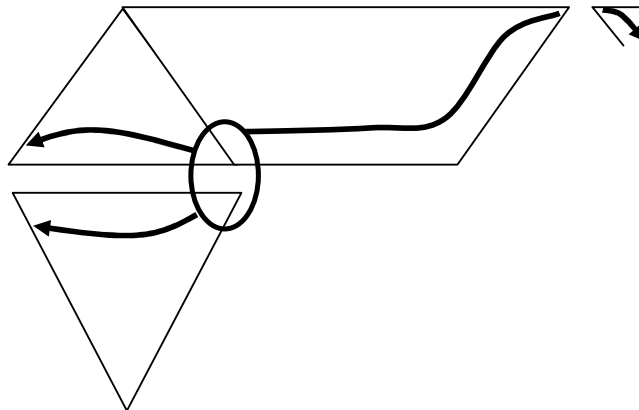

3) To the east they found a lot of space and even could cross to America, while those going to west found an end to these expansions – the Atlantic Ocean.
4) Then each one that went to west tried to cross to the other side and an explosive tension was created (Southern people invading the north and Northern's invading the south).
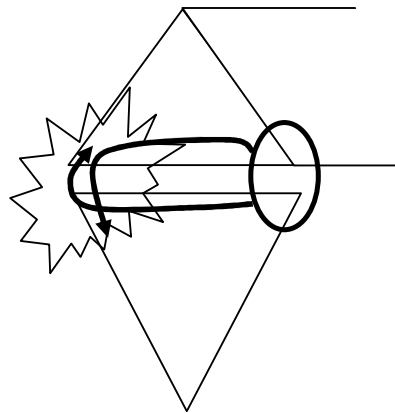
5) These terrible tensions went on and on and only faded away when Portuguese conquered the know-how of navigation in all oceans and finally got to India and Asia by sailing boats (to reach the countries of precious stones, precious woods, spices, silk, porcelain, culture, etc.). The door was open to 500 years of European world supremacy.
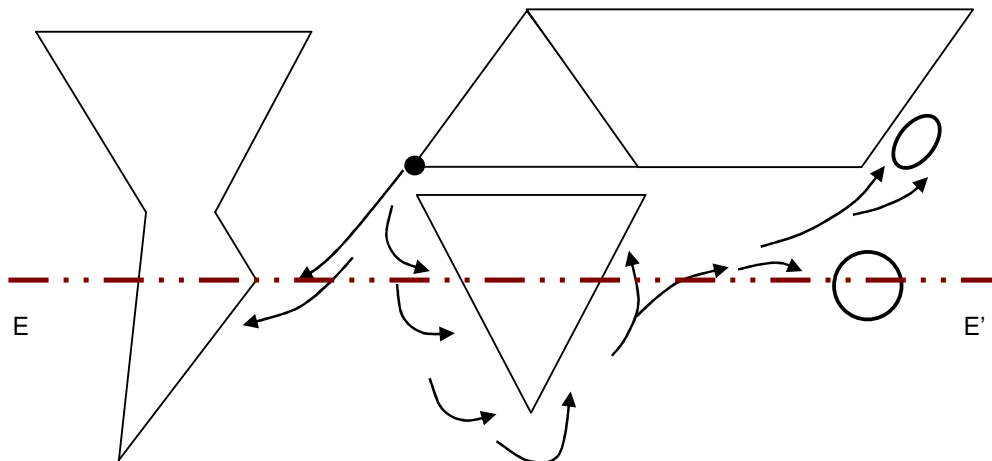

6) Two years later the missing link from Europe to the West and to the South (meaning to cross the Atlantic Ocean and simultaneous to cross the Equator, closing the maximum circle of world-wide migrations) was finally obtained, through the command of Pedro Álvares Cabral on his way supposed to be to India… the famous "Tordesilhas" treaty allowed Portugal to get the leadership of south Atlantic migration.

7) Europe went on having different countries and ethnic groups fighting each other, only united by the Roman Empire and later on surrounded by the Ottoman Empire (south and east) fighting the Austrian Empire to the Centre of Europe. Wars went on all the time. Carlos V tried to dominate Europe and Napoleon follow the same idea invading a large part of the continent.

8) Terrible wars arise later on with German trying to expand, 1870, 1914 and 1939. The defeat of German, Italian end Japanese on 1945 put an end on these kinds of wars and on the hegemony of Europe in the World. United States and Soviet Union shared the leadership of the world. The cold war started. Europe countries were then weak, not able to discuss among them the leadership of the World.
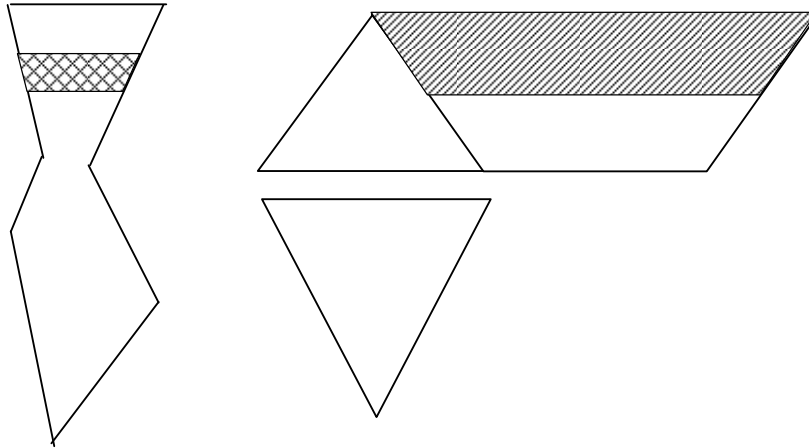
9) The obvious solution for Europe was its union, forgetting about ancient divisions and getting all the nations around an economic program, expecting to represent a third force into the world balance. The only problem being the time needed to create a union and to become linked within main political and cultural principles, then getting a power and an objective. **For the first time** the union of Europe is achieved by a peaceful way based on the feeling that the future of Europe depend from this united power. This strategy avoids the idea of one of the European countries conquering the others.
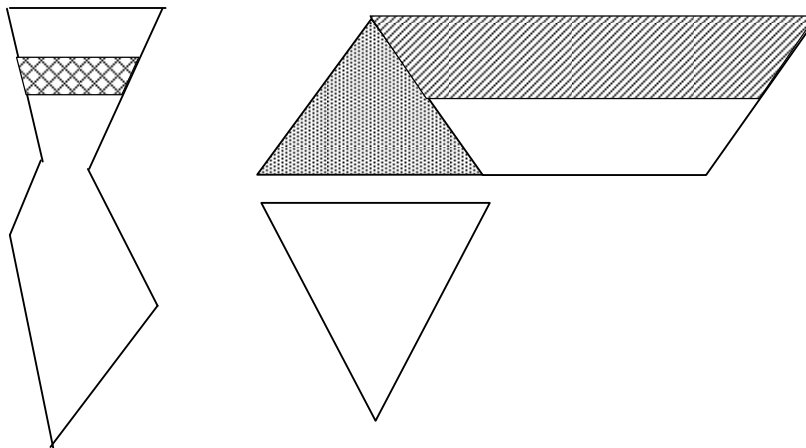
10) Looking to Europe, one can see differences between north and south, between east and west. The differences between east and west are much less then between north and south, due to the fact of the Mediterranean Sea being the great canal of transports from the antiquity to our XX century. Phoenicians were great navigators that also came and settled in Portugal, coming from Syria and from Carthage. Venetians and Genovese also went to the east and many other people went around the Mediterranean Sea.

North

South

West   East
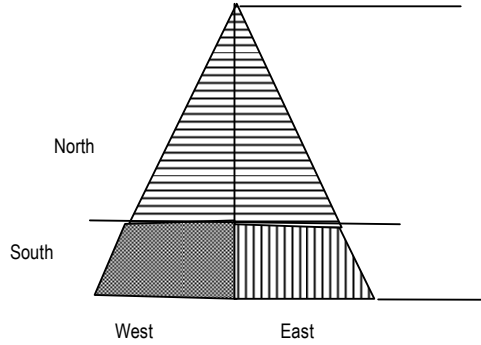
11) The culture and character of southern European people was the main root of the European civilization, corresponding to an ancient and great experience of contacts all over the world, starting by a synthesis of values coming from Africa, from Asia and developed around Mesopotamia.

| Ancient wars must now give way to understanding and peace |

12) Along these Mediterranean countries and the Mediterranean Sea is the best place to start the building of a "diaphragm" able to mediate between the poor southern countries and the rich northern countries. To succeed it is necessary to create a strong muscle, as the diaphragm inside our body. The "very northern" and the "very southern" countries are not suitable to be mediators for a balanced world having in view a human development and peace. Starting by that Mediterranean strip that I called World Diaphragm it is necessary to strength the Mediterranean countries and associate them on this purpose, then reinforce it by enlarging it until the African side, after that to create roots inside Europe and inside Africa and finally going to Asia and to American, starting by Mexico and Brazil.

1st Step   2nd Step

Diagram getting stronger and stronger for peace and development in order to get a North-South balance

3rd step
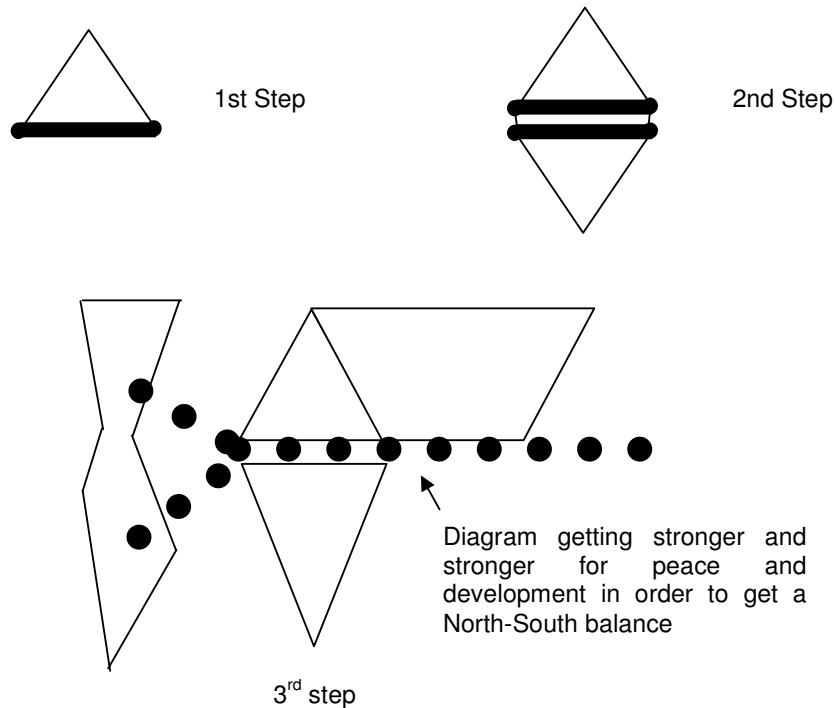
13) The importance of Lisbon and Istanbul is reinforced by the role and structure of the two corner peninsulas:
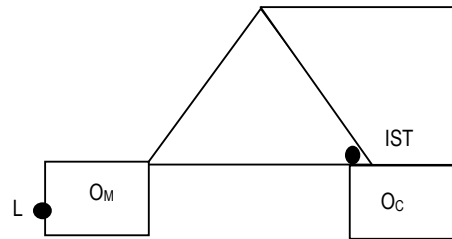
At west we can see the main economic city of Madrid and the historical and old cultural city of Lisbon, while on the east one can see the Turkish capital of Ankara but also Istanbul as the oldest and largest cultural/historical city of Turkey and of Europe.

Lisbon and Istanbul, two ancient imperial capitals, both built on hills and reflecting their images on the water around, showed a lot of points in common with great resemblance, having a common heritage. Roman roads network and Mediterranean Sea main link made it easy to get quick relations all along the "White Sea".

14) The History of Mesopotamia and Mediterranean civilizations is reflected on the design of its cities. A big difference of culture lies on the power of the investors and builders of the city. As a main rule one can find locations on very favourable flat spots and implemented a standard plan not taking in account previous land owners and private real estates. It is the attitude of conquerors and powerful people. Weak people behave on a completely different way. They choose a place with difficult access where they can provide means of defence like hills, plus some fortification walls. The city design will be organic to take in account land morphology and pre-existing ownership of agricultural plots and buildings. The result will be a gridirons scheme for the powerful people, for the others we get an organic network.
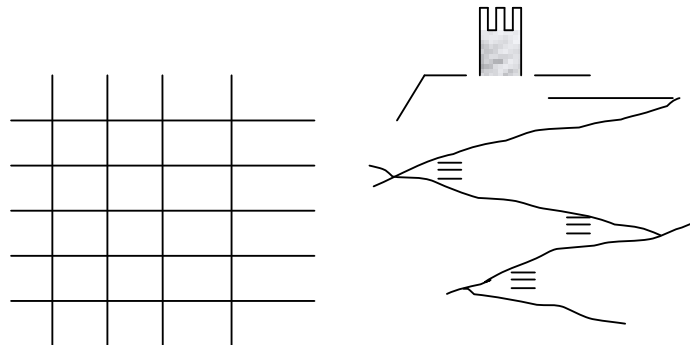
15) Evolution of culture and conditions of defence and protection showed a varied pattern of city design, as cities must be seen as a site and a protected space where to settle and live.

16) City planning became an activity to deal with risks:
   a) The enemy, the invader – the answer can be a hilly town and a wall for its fortification.
   b) The need of water to survive – it means choosing a place near the water and devices to catch it, including aqueducts.
   c) Risks of erosion by the sea – it is wise to put the city far from the sea line and on a rocky elevation.
   d) Soil subsidence – avoid the risky slopes and provide good sustaining walls.
   e) Street crime – police organization and safety doors and locks.
   f) Generalized crime against houses and people – condominiums and security guards. Today fear is bringing back "walled cities"…
   g) Flood – respect the potential flooding space and reinforce drainage.
   h) Fire – put houses far from forests and use different devices, plus fire brigade organization.

   i)   Earthquakes – avoid building on seismic faults and reinforce the building structure, providing shelters to be used in case of catastrophe.

17) City planning is furthermore dealing with balance between offer and demand, capacity and thresholds (metrics):
   a) Capacity to deal with flows/traffic.
   b) Capacity to feed the people (water and nutrients).
   c) Capacity of social infrastructure.
   d) Capacity of sewage and solid waste treatment and assimilation.
   e) Financial capacity to solve problems.

VI – KEY TOOLS FOR SUCCESS ON URBAN AND REGIONAL PLANNING

A) Anticipation of bad trends – timely answers, public administration capacities/monitoring, this means **permanent planning**.
B) Subsidiarity plus solidarity among public institutions and levels. This means **quick help** and power changing every time it is necessary.
C) Civil services – new mentality. This means **permanent education**.
D) Education of citizens, meaning **instruction and culture**.
E) **Environment observatory**, spreading the information obtained.
F) Creativity – models and alternatives, it **means know-how, training and specific capacity**.
G) Responsibility, transparency, communication → **Planning**:
   i. Conscious of the issues. Definition of Plan-Spaces.
   ii. Ideas/creativity. Contact with citizens and communities.
   iii. Evaluation of alternatives (costs, impacts, effects and side-effects, resources needed, strategy for implementation).
   iv. Messages and communication devices.
   v. Shaping and limiting neighbourhoods and organic units-plan spaces.
   vi. Incentivating life together (vitality).
   vii. Full-employment program and strategy.
   viii. Spaces for creativity and launching of ideas.
   ix. Incrementalist way of improving.
   x. Plans gradually detailed – collegial kind of approval.

VII – SCOPE OF PLANNING

From city planning arises the need of regional and territorial planning. To get the best solutions and avoid negative conflicts there are already many transfrontalier plans in Europe, showing the capacity of planning to anticipate difficulties, to find 3rd solutions and to get harmony in a win-win kind of process.
Planning of countries is being more and more developed and the next step will be international plans. European schemes for Europe development already start to appear but a long way is still necessary to obtain positive results through planning.
Humanity must find ways of wise and peaceful development. Citizens' education and citizens' participation are always within planning conditions and tools. Visual education can help different culture and languages to come together and to find a common policy for development.
Let us put planning on the first row of our professional strategic policies.
Never forget that city and regional planning needs an understanding and a balance between:

Privacy   Meeting