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Compact Spawl in Greece: A theoretical analysis

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"COMPACT SPRAWL" IN GREECE. A THEORETICAL ANALYSIS

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ABSTRACT

Cities probably represent the most complex and creative component of man-made environment. Nowadays their structure has been altered since the obvious limits (boundaries) of the "classic city" have been changed as result of the expansion of urban functions to the rural land. The main scope of this project is to present the complex aspects of an idiomorphic phenomenon, named "compact sprawl" of the Greek cities which is stamped by the giant growth of a "latent urbanism", such as the urban sprawl with a parallel fit of compact structures within old city boundaries. Through a theoretical approach of their partial basic spatial characteristics and taking into account the reality of the Greek urban planning system, the critic approach of "out of plan areas" is seek, in relation to the tight and coherent structures of the city centers, to create a great disharmony. In particular, this phenomenon has significant inflation at the districts of dynamic cities and coastal locations due to an enormous development of tourism. The analysis showed that while the Greek system of urban planning exhibits a "functionalist practice" with adoption of binding building clauses and regulations of land use which approximates in some point, mainly in aspiration level, the principles of a compact city and at the same time deconstruction procedure is operating which does not obey to any kind of rules, subjected to the needs of the market economy and reliant to its political and social acceptance as a procedure of urbanism. The result of the specific practice is the creation of particular and severe environmental problems and mainly the destruction of the urban form and also of country's cultural identity. Some recent policies with the implementation of land use plans and building abatements may seek for the limitation of this phenomenon, but with no essential results and mainly without succeeding in convincing for the social and political convenience of the abatement of the specific kind of building.

Key-Words: *compact city, urban sprawl, Greek urban planning, planning framework, Legal aspects, Sustainable urban patterns.*

1. INTRODUCTION

Urban planning is the result of a local or central political - administrative system and the prevailing cultural perceptions. While it is involved in the social practice itself, it is neither static nor standardized. It is an extremely dynamic process, utilizes the regulatory authority and contributes to the management of environmental development and protection. The acceptance of the need for spatial dimension of policies and the avoidance of the large cost in the framework of current reality such as the globalized economy and technological changes, constituted the incentive for searching for suitable spatial patterns that affect the planning of cities and their districts, in such a manner as to formulate the conditions for "sustainability"[1] in a long-term perspective (Healey and Shaw, 1993). From this point of view, a common pursuit is precisely the incorporation of the new perceptions on ecology (environmental justice), the economy (self-sufficiency) and society (cohesion) in the spatial planning processes (Wheeler, 2004). A crucial issue is the production of form (image), structure and specific characteristics of cities such as their density, compactness, the intensity and the spatial distribution (mixture) of land use, the increase of mobility, the improvement of transportation and other infrastructures, the sector of technology etc. The challenge related to spatial planning is to be able to respond in a dynamic manner to this new geography of cities that is the result of social, economic and environmental procedures in time (Harvey, 1996).

In the specific contemporary framework, it is generally accepted that spatial planning in Greece is characterized by a gap between theory, the institutional framework and practical implementations (Economou, 2000a; Economou, 2000b etc). It is also characteristic that a systematic effort to clarify certain policy choices is missing (Delladeltsimas, 1997), and this creates a general vagueness in terms of the objectives. However, specific spatial results are recorded that can be traced in time and space, and primarily to be incorporated in the particular political, cultural and social reality of the country. The present article attempts to analyze the diversion between the general arrangements and guidelines set forth by the Greek institutional framework concerning the adoption of compact city principles, and the everyday reality which leads to an unavoidable urban sprawl with particular characteristics.

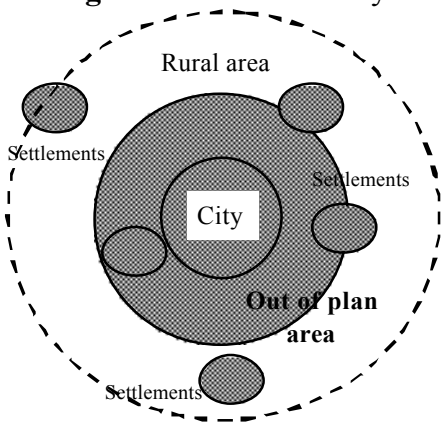
[1] Berke and Conroy (2000), Wheeler (2004), Wheeler (1998), Aggelidis (2004), Elkin et al (1991), Newman (2005), Haughton and Hunder (1994), Aalborg Chapter, New Charter of Athens, etc

2. "COMPACT SPRAWL" IN GREEK CITIES

It is widely accepted that the limits of a city do not just include the physical expansion of urbanized areas. The reality is that its functional space has expanded also outside the urban planning and administrative boundaries, including larger areas, suburbs and intermediate open spaces (Arvanitidis and Doris, 2008), making the distinction between urban and non-urban (rural) area one of "empty content". Due to a particularly developed transportation infrastructure reinforced by the new reality respective to informatics and technology, the conditions were created for the expansion of urban functions in a greater area. The process of urbanization, even though initially deemed as a natural invasion of the urban area to the rural space, is now very indiscernible (Okabe, 2005). Cities are not a univocal row of buildings but a co-supplied and co-dependant system that surrounds all human activities in greater "urban districts" (Arvanitidis, 2003). In this constant transition, a significant process takes place: cities expand, simultaneously minimizing the time and the distance between "inner" space and "outer" space, developing an urban continuity (EEA, 2006). This phenomenon has caused the so-called "urban sprawl"[2] as a basic and acceptable form of city planning.[3] Despite the appearance of countless neologisms on this phenomenon, the old definition of Melvin Webber "non-place urban realm" continues to adequately describe it (Gerolympou and Papamichos, 2004).

In Greece, in particular, the characteristics of urban sprawl differ to a certain degree from those in other countries, due to the "unconventional" building construction that is called "construction outside the city plan". Its form is common in the entire country and can be defined under a special framework due to its uniqueness. In any case however, its basic elements and primarily its impacts are the same as those in other countries (see Figure 1). The specific phenomenon seems to worsen rather than be confined, to a degree where urban sprawl (construction outside city plan), is today a very crucial in the

Figure 1: The Greek City



[2] The European Environment Agency (EEA, 1995) describes urban sprawl as *"low-density expansion of large urban areas under market conditions into the surrounding agricultural areas. Sprawl lies in advance of the principal lines of urban growth and implies little planning control of land subdivision. Development is patchy, scattered and strung out, with a tendency to discontinuity"*. For more see Nelson and Duncan, (1995); Gillham and MacLean, (2002) etc.

[3] Newman and Kenworthy, (1989); Breheny, (1992); Hillman, (1996); Jenks et al, (1996); De Roo and Miller, (2000); Burton, (2000) etc.

Greek system of spatial planning. It affects the quality of the greater district of cities and causes significant impact to the environment (EEA, 1995). Historically, it was caused by population growth and internal migration to cities (urbanism).

Today however, while population growth in general in Greece is very low, a series of economic, social and environmental factors aggravate the specific phenomenon. Its significance lies in the fact that it pertains to all uses and not just to the residential one, and is a common characteristic in almost all cities regardless of their geographic, economic and administrative characteristics (Andrikopoulou, 2007). A summary description of the impacts of urban sprawl is presented in table 1 below.

Table 1: Urban Sprawl – Parameters of the phenomenon

Macroeconomic parameters	**Microeconomic parameters**
Economic Development	Improvement of living conditions
Globalization	Land values (return on land)
European Cohesion	Availability of affordable agricultural land
	Competition of Local Governments
Housing Preferences	**Inner City Problems**
More space per person	Atmospheric pollution
Housing preferences	Noise pollution
	Small houses
	Unsafe environment
	Social problems
	Narrowness of open green spaces
	Poor quality of education
Transit	**Institutional Framework**
Automobile ownership index	Poor spatial planning
Road infrastructure availability	Poor implementation of spatial plans
Low fuel cost	Lack of horizontal and vertical
Poor public transit	administrative cooperation and coordination

Source: EEA (2006:17)

Spatially, urban sprawl encompasses the region of Greek cities and creates significant effects and strains primarily in areas of high economic activity and with specific characteristics such as coastal zones with high concentration of tourist activities and vacation homes. Mediterranean cities, in general, are deemed to still be a tank of urban variety, due to the prototypical image of density, urban complexity and social variety that is attacked by the new

trends that lead to urban sprawl. This becomes even more worrisome considering the well known vulnerability of inshore ecosystems (Munoz, 2003).

In an effort of tackling the phenomenon of urban sprawl, scientific research and policy making in nowadays, tend to agree on more compact urban forms, higher densities, variety and mixing of land uses, encouragement of mass public transit, participation of all involved parties, small environmental footprint etc. which would cause smaller consumption of resources. It is believed that if these tools and approaches were used by city planning, they would lead to lower gas emissions and the essential maintenance of the environment such as the protection of agricultural, forest, and free lands (Jenks et al., 1996). The "compact cities"[4], precisely attempt to satisfy all the above criteria. Recognizing the significance of such policies in the E.U., the thematic strategy on the urban environment (EEA, 2006) supports actions on a local level, in the broader framework of urban land management. Regarding urban sprawl, a framework of good practices was created, some of which are as follows:

- Development of long term plans that promote sustainable development and limit urban sprawl, supported by constant monitoring and recognition of impacts in the area.
- Policies for the re-use of brownfields and recapturing public areas for the support of more compact forms.
- Policies for avoiding the development in terms of construction of free land (green fields).
- Recognition of key factors such as the private sector and the local society, central administration, local government etc and their involvement in land planning.
- Management of urban and rural areas through the collaboration and coordination of local and regional governments for achieving sustainable development.

Source: EEA, (2006:44)

[4] As structural forms, they are illustrated as the evolution of the traditional European city of the 19th century and early 20th century. There is of course theoretical evolution that has been translated in a series of factors based on which these standards were formulated as acceptable. The creative work of Jane Jacobs (1961), who first presented a fundamental critique of the formalistic theory of spatial planning of that time, lead to the idea of a "compact city" which was proposed by Dantzing and Saaty (1973). Their vision hoped to improve the quality of life in urban areas but not to the detriment of future generations, an idea that is compatible with current principles of sustainable development. Primarily from 1990 onwards, a large portion of the bibliography focuses on compact city structures with various alternative layouts such as the concentric, polycentric, decentralized etc (Cervero and Kockelman, 1997). In this framework, they can be deemed as a result of a strong reaction to the principles of the modern movement and the Map of Athens.

Within this framework, the Greek system of urban planning supported on a functionalistic organization and the frameworks of regulatory provisions (Gerolympou and Papamichos, 2004), namely typical urban forms and control of building construction attempted to incorporate the principles of compact structures, with a series of laws such as Law 1337/83 and primarily Law 2508/97. This happened mainly through spatial variables that were introduced in planning, such as the Building Density Factor (hereinafter referred to as BDF), the coverage and the building construction ratio. They are approved by decrees (when incorporated in urban plans), or alternatively they are used through general legal provisions, such as the General Building Regulation (hereinafter referred to as GBR), which is in force for all of Greece. They constitute an attempt to quantify the building characteristics and they are neither connected to specific land uses, nor to local natural and functional characteristics of the area (Aravantinos, 2007:184-87). In the planning process, they stem as necessary components of an Urban Plan which has to conform to a series of specifications and urban planning standards[5], through which the needs of the city in units and land of all functions and uses are determined. The particular specifications are supported on procedures that applied during the period of the Urban Planning Reform (hereinafter referred to as UPR) at the beginning of '80s and constitute an effort for objective approach to spatial planning of cities. Their significance, even though not entirely accepted by a number of scientists (see Aravantinos, 2007:354), especially for the Greek framework where there is no proven and historical tradition in planning, is quite important, since they set forth the few conditions of a rational planning procedure. For residential uses in particular, in areas that are subject to urban planning for the first time (extensions of city plans) with the provisions of Law 1337/1983 & Law 2508/97, a maximum building ratio is provided, which cannot be greater than 0.8,[6] determining, thus, a specific pattern of construction densities.

Despite however the attempt to implement a specific regulatory framework relevant to building and the development of Greek cities, a parallel procedure has also historically arisen. While it can be said that city plans and building regulations, where such exist, set the limits of land development and attempt to utilize the tools, the principles and the procedures of planning, building construction outside the city plan is a separate alternative and prospect. As

[5] They were first incorporated in urban planning during the period of UPR and updated with Ministry of the Environment Land Planning and Public Works decision number 10788 (5.03.2004). They constitute a spatial-time parameter (quantitative and qualitative) that ensures the measure of adequate relevant to quantity and the measure of tolerable relevant to quality, of a regular function that is chosen and placed with urban planning.

[6] Pertains only to first city residential areas. There are corresponding limits for the second home (0.4) and for special land uses as well as for tourist activities, housing programs and public utility land uses.

a principle, the first regulatory framework in force even today was first set forth with the Presidential Decree of 1923[7], but it provided only for certain specific land uses (e.g. industry) that could not be located within cities and communities. The sequence[8] included a series of other uses until the end result that permitted residential uses and their institution outside the city plan resulting in an acceptable and legitimate rule (Giannakourou, 2007). The constant amendments which eliminated basic and structural legal provisions (ITA, 2006) as well as the general phenomenon of illegal building construction[9] were also factors which contributed to an even broader expansion of the "construction out of a city plan" phenomenon.

3. BUILDING CONSTRUCTION FOR OUT OF PLAN AREAS

The latest history of urban planning begins and it is connected to the first Legislation Degree (hereinafter referred to as L.D.) of 17.7./1923. Urban planning is provided in a scale of settlement or town, with a key institution the "city plan" (Papagrigoropoulos, 2007:89). The main characteristics of the Greek ground at that period are: a) the big amount of forest scheme and the agricultural landscape b) small towns and medium size towns, c) towns and small villages, d) low financial development of the original section and e) incomplete industrialization. The systematic treatment of the existing residential reality of that period, leads to the attempt of the towns planning with provisions of normative character and interventional urban planning. Therefore, the aforementioned L.D. of 1923 proceeds to the tripartition of the country from urban planning aspect in: a) areas "within urban plan", b) settlements which already exist in 1923 and lack of urban plan and c) areas out of urban plan and outside the settlements which already exist of 1923 (out of urban plan). Also it establishes the distinction of the land of the whole state in agricultural (cultivable) and urban (urban planned) aiming at the avoidance of the land's dissipation due to its improvident building. Hence, for the first time we are referring to the out of plan areas.

These areas of L.D. of 1923 are defined negatively. This means that the areas of out of plan construction are those which are located out of the approved city plan and the ones which are out of the settlements which already exist before 1923. The properties that are located within the inside planning area are described as rural properties or fields according to the close

[7] Through article 9 of the innovative law for that time, the imposition of terms is permitted for reasons of sanitation, safety, aesthetics respective to the erection of buildings on land parcels.
[8] For more see Presidential Decrees24/31.05.1985.
[9] Broad urban planning illegality (BDF violations etc) is due to practices and perceptions that do not respect the legislative provisions in force and the government's inability (complicity) in restricting the phenomenon.

interpretation of L.D. and are initially targeting to the rural exploitation and the production of natural recourses. However, in article 9 of L.D. of 1923, it is allowed the assessment by the administration of any terms and constraints of building at the grounds and constructions which are built and repaired in these fields of the out of urban plan areas aiming at the scheme of some of the urban planning's needs of hygiene, aesthetics security, general economy of the town and protection of the environment and ancients. This assessment is realized through presidential decrees or other deeds of the authority and regulates: a) the minimum allowable limits of the surface and the dimensions b) the maximum and allowable height of the buildings, c) the number of roofs, d) the maximum surface that can be covered by the buildings, e) the building factor, f) the spot of the buildings and the relevant water supply installations, illumination etc. It is noticed that by the enumeration of article 9 of the aforementioned decree, it is allowed firstly the building at the out of plan areas, with the assessment of specific terms and constraints and this comes in contrast with the initial destination of these areas as rural and therefore non allowed to build.

Furthermore, at the L.D. of 1923 it is prescribed that the out of plan building construction area includes: a) the areas that by nature remain at their natural state and require special attention (sites of archeological interest, architectural interest, coastal and reverine zones, etc.) which remain non buildable, b) the areas which fall under in a special legislative status quo, such as the rural areas, special cultivable areas, quarries etc., in which the building is forbidden and c) the areas which can serve the social economical life, which some times are buildable and some times they are not, without though to create districts with town planning.

The last areas, without the previous zoning planning, lead the administration to the approval of building terms, resulting at the areas of out of town planning to the uncontrollable development and the improvident residential building in them. According to the later L.D. of 1925, it was provided the faculty of building in areas of within the planning zone and casually of the limits of the settlements, something that practically means that it is allowed the building in areas of out of plan. Also, in 1928, it was provided the faculty of building in the out of plan areas for uses which serve the agriculture, the tourism, the holiday residencies, the industry and the hospital areas. The aforementioned regulations brought after-war the needs for housing and productive uses. In 1985, it was established the out of plan building for all

categories of land use (Vlantou, 2008),[10] including the residency and every other activity. Whatever can not be laid out within the town planning is legally allowed to be laid out in out of plan areas. At the same time, it is also allowed the building in settlements which are built before 1923 as well as the building of "within the zone" of the settlements.

From the above, it is implied that the out of plan building construction is an urban planning form which was invented in order to cover mainly the lack of urban planning of the countryside as well as and the lack of its in general territorial planning. It was developed until today aiming at the acquisition of financial benefit and boost of the investment and building activity, without design and with no re-examination of the building terms, land uses and planning of the financial activities. The out of plan building lead to the creation of unauthorized buildings, the fragmentation of land, the encroachment of forests and public areas and to the relegation of the natural and residential environment.

Although the planning of the countryside was attempted through the enactment of the first statute in 1979 and latter in 1983 with the institutional implement of Zones of Urban Control and the General Urban Plans in 1997, it was not completely attempted the constraint of the out of plan building. Up to nowadays although it has been enacted the General Frame of Zoning Planning and Sustainable Development in which there are provided control zones at the rural areas, zones for the protection of natural and cultural heritage, of many activities, the out of plan building can not be deleted due to lack of long term planning and town planning

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[10] Vlantou, (2008) says that *"internationally the functional ordainments of the countryside cover: the agricultural production, the protection of wild fauna and flora, the organized/planned residential or productive development, the entertainment, the mental calm and piece, the reassurance of needful natural resources (water, fossil wealth…). The addition of an extra function - against these - and mostly against the ex planning and program residential exploitation, does not stand. The dispersion of residence, an existing phenomenon in older pre-industrial periods, covered the needs and the model of development, which have radically altered since then. From the after-war years, in all developed districts, the presses that the countryside was facing were increased, not only due to the increase and moving of the population, but also due to the increase of the size and the intenseness of the uses which originate by the financial and social demands. The financial antagonism leads certainly to the antagonism of uses. The agricultural activity, as a mail ordainment of the countryside, began to be doubted. Therefore the need for development and management of the area of countryside came up. Everywhere at the west world, the territorial planning and programming appears in order to negate the conflicts between the assurance of the interests of the original section and the right claims of other functions. In any case, the diffused, random development is not accepted. The protection of the countryside goes first"*.

11 From 1923 until 1985 the general building terms were in force. Already, by means of the Presidential Degree 24/31.05.1985 as this was amended by virtue of Law 3212/2003, the general building terms in out of plan areas involved a minimum field surface of 4.000 sq.m. and face at a public street of 25m. At the aforementioned general building rule there were distinctions in several fields which were considered at average of the above rule as integral and developable. With these exceptions it is observed the intense building at these areas, which should remain non- buildable.

policies. The limits are dimly between the urban and out of urban area resulting to the continuous downgrade of the natural and residential environment.

4. CONCLUSIONS

In contradiction to what occurred in other European countries, the policy that was followed in Greece did not involve the implementation of the principles of compact cities but one of facilitating construction by all means and manners, which essentially undermined the rational planning and the achievement of the sustainability of cities (Economou and Petrakos, 2004; Economou, 2007; Vlantou, 2008 etc). There was an almost complete acceptance of the urban sprawl as a means of spatial development and urbanization for Greek cities, which resulted from the complete submission of conventional planning procedures to the market economy. This is in complete contradiction with the new principles and approaches that deem the city as a part of a social and ecological system of low impact (WCED, 1987; Williams et al, 2000; IUCN, UNEP and WWF, 1991; ICLEI, 1994 etc). This is primarily due to the urbanization that resulted from the particular characteristics of economic development, where land exploitation overshadowed other uses such as agricultural etc. It is certainly obvious that the issues of Greek cities reflect to a large degree the structural problems of the country's economy, comprising the spatial expression of the post-war development model (Pavleas et al, 2009; Gerolympou and Papamichos, 2004). The specific discovery rather involves the "Achilles heel" of planning and a contradictory discovery, since in the invocation of social interest is hidden an unadulterated privatization of land and its private exploitation.

The regulations of land use also, in the Greek institutional framework in planning, are not governed by complete rational rules respective to sustainability, which as a notion, rather remains in the sphere of its theoretical invocation. Reality formulates certain competitiveness in land use, incorporated in the laws of the market, return on land and land ownership which develops within the cities, outside the cities and primarily along transportation corridors (Getimis, 1989:55-56; Economou, 1995; Aravantinos, 1997 etc). Of course, the use of building ratio which is the main characteristic feature of Greek cities for all uses and not just for residential, offers flexibility for adaptation and functional management of the residential supply to a particularly effective degree for the ultimate fulfillment of the economic and social demand in land. Essentially, the specific characteristic feature constitutes the field of application of the theories of Burton (2002), which defines a horizontal (lengthwise) or

vertical (varied use within the individual building) combination of mixed land uses within a residential unit and are characterized by adaptation to the more recent technological developments and innovation.

The legislative provisions that regulate construction outside the city plan, even today are general, without specifications according to local or other characteristics, have a complete nature and only set forth certain specific restrictions (completeness, facing a common use street, building lines etc) which in practice facilitate instead of restricting such forms of building construction (see Beriatos et al, 1994). From its critical approach, it is obvious that in no case it can be characterized as compact, nor cohesive. It is rather an "incorrect urbanism" which extends beyond the formal boundaries of the cities (Christodoulou, 2008) and the areas with particular developmental characteristics (tourist areas, islands etc). As a phenomenon, it characterizes perceptually and not only so, the urban districts and aside from its random layout, presents strains along the transportation corridors (Economou, 1995; Aravantinos 1997). It is characteristic that in order to formulate the situation elegantly, Vasenhoven (1995) states that the space out of the plan areas is treated as residual and Economou (1995:64) that it is a "hybrid" intermediate space without the necessary infrastructures.

The recent efforts to restrict the specific phenomenon through planning tools and institutional measures (Law 2508/97, ZUC[11] etc), can limit to a certain degree building construction outside the city plan but in no case can they can solve the problem. They act retroactively and many times even hypocritically to look in accordance to the contemporary objectives of spatial planning. Prohibition of building construction is used only in exceptional cases (in seashore and beach zones, in forest and archeological areas etc) and the increase of the completeness that is proposed in the majority of cases does not have the anticipated results, since it causes intense social outcry. This is due to the fact that even agricultural land in Greece is perceived as "virtually" residentially exploitable, a characteristic that hides a surplus value that is lost with the prohibitive regulations.

Another dark point of the specific practice is the destruction of the cultural wealth of the country (residential tradition), the homogenization of the city aesthetics and primarily the

11 Zones of Urban Control (ZUC) of article 29 of Law 1337/83 are a regulatory tool of spatial planning. They may be designated, either around specific city plans and delimited settlements (paragraph 1, article 29 of Law 1337/83), or in sensitive areas that are located along coasts or banks of public lakes or rivers or other special protection areas (paragraph 2, article 29 of Law 1337/83).

breakdown of the State law that acts for the social benefit and not for individual security. Furthermore, the environment, of the cities as well as of the suburban and rural areas and the island and seaside land, was the big loser. It was always the limiting factor of the poorly meant development, a brake in a philosophy that is not encountered even in the most liberal (deconstructed) regimes. This is also the oxymoron of the issue; that while the institutional system of the country expresses an intense intervention on land, the result is the application of a fully liberated procedure of land exploitation.

IN LIEU OF AN EPILOGUE

The relationship between sustainability and compact cities contains primarily two main antagonisms; between density and urban expansion and between intervening planning policy and the free market (Newman and Kenworthy, 1989). In the Greek example, the rational management of land was essentially sacrificed under the weight of an idiosyncratic political system and a social reality (regime of land ownership, small ownership etc) which lead to intense urbanization, as a factor of production of wealth and incorporation of the weaker social layers in the economic system. Also contributing to this was the lack of structures and tradition respective to land planning but also the one-dimensional development that was supported, mainly in the post-war period, by the construction activity and overexploitation of land (Economou, 2009). The consent between citizens (pressure on authority), policies (client system) and administrative mechanisms (deconstruction of legislation and tolerance of arbitrary construction) of the State (ITA, 2006), can essentially be characterized as a "complicity" or an honest "compromise" (win – win situation) towards a common vision, that of development at all costs. Apparently, economic enlargement and wealth came out as winners as well as social cohesion, since the exploitation of the land essentially dulled the inequalities and created a new middle class that subsequently became the steam engine of growth.

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