CITY FORM AND ITS TRANSFORMATIONS—
THE CASE OF THESSALONIKI

by

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Submitted to the Department of Architecture
on May 11, 1984 in partial fulfillment of the
requirements for the Degree of Master of Science in
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ABSTRACT

The study views the city as a system of built forms and spatial
relations which is additively produced over time through successive
transformations resulting from redefinition by different social groups
of their physical domain. This framework of thought is applied and
explored in a detailed case study.

In the introduction, the topic and the basic ideas of the approach are
set. The choice of Thessaloniki as a working example is explained and
the concepts and structure of its analysis are presented.

An introduction to the city is given by an outline of its history and
presentation of its privileged geographic location and topography.
Historical periods corresponding to circles of the city development
are individually analyzed in sections covering historical context, pre-
vailing functions, description of built form and concluding remarks
where a synthetic view on change factors and transformation outcomes is
taken. The division in periods, Hellenistic, Roman, Byzantine,
Ottoman and Modern, traces the successive rebuilding of the city
upon the same territory from its foundation in the 4th century B.C.
until the recent past.

In the conclusion, the ideas evoked by the analysis are reorganized
around the themes of permanency, change and their dialectic synthesis in
the phenomena of city transformation.

Thesis Supervisor: Julian Beinart
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TO MY PARENTS

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The city, however, does not tell its past, but contains it like the lines of a hand, written in the corners of the streets, the gratings of the windows, the banisters of the steps, the antennae of the lighting rods, the poles of the flags, every segment marked in turn with scratches, indentations, scrolls.

Cities & Memory 3

Italo Calvino, Invisible Cities
INTRODUCTION

This study views the city as a system of built forms and spatial relations which are additively produced in time through successive transformations resulting from redefinition by different social groups of their physical domain. Transformations of the city are composite phenomena in terms of processes and outcomes. City form, on one hand, is constantly susceptible to change: cities expand, decline or are destroyed; natural deterioration and the everyday life of people leave their marks; new forms, functions and symbols are introduced, while others become obsolete. On the other hand, despite the innovations and breaks, a continuity is implicit in city form in the elements which persist and survive over time, points of reference or remains around which new realities are built. Cities contain time in layers and in this manner they are produced. Under this scope and interest city transformations are the object of this study.

In our approach, cities are conceived as the physical domain of operation and, therefore, as products of societies--economic systems, social, institutional-political and cultural forces at play. Economic phenomena are the driving forces determining the development of cities (or their decline). However, although these forces set the basic directions and limits, they do not explain the particular ways in which cities are, ultimately, transformed. The total framework of the social, political and cultural factors, as these are expressed and synthesized at the given time, must be considered.

Further ideas can be proposed. Built space imposes itself as a factor conditioning its further production. One set of reasons is related to the very medium which has its own characteristic properties and norms of transformation. Built forms, although in the long run susceptible to deterioration or destruction from natural forces such as fire or earthquake, have a natural quality of persistence and stability. Their total replacement is usually a costly enterprise, while they can more easily be partially changed.

At the same time these built forms are the settings of society's
operation, they embody in their physical forms a complex reality of uses, economic and cultural values, hierarchies and relations. Built environments stand for a set of resources and a state of affairs and constitute an establishment which a new dominant order had to overcome. Built forms show an "inertia" to change as well as a potential to absorb new life styles and values.

Another conditioning factor in the phenomena of city transformations are the intermediate normative bodies of theories, practices, conventions, laws, etc. through which societies regulate the production of their built environments. These tools and methods express the given priorities and demands of the socio-economic framework but organize them in their autonomous logic and principles and formalize the specific norms and models ultimately determining the shape of built form. In this view the architectural and planning professions and related theories are considered to be intervening as relative autonomous factors in the process of city form production.

Our understanding of the phenomena of transformation of cities demands a careful definition and interrelation of the various factors at play in historical contexts. Changes in the values, practical means and normative theories which societies hold for built space produce different cities in time and place and result in different ways and degrees with which previous forms and patterns are incorporated or abolished in new realities. However, the transformations of cities evolve around and deal with some basic issues and problems and could therefore be defined and explored as general phenomena in themselves.

Substantial input regarding this conception can be seen in studies on city form which were developed recently by architects and show a set of common tendencies: an interest in studying city as architecture, as a structure of formal and spatial artifacts and relations and the consequent adoption, in terms of a conceptual framework and definition, of an "autonomous" approach. Basic ideas of some of the works have been stimulating and, freely borrowed, enriching the scope of this study. I would like to mention
J. Habraken's concept of Transformations of the Site, A. Rossi's Primary Elements, Memory and Locus, L. and R. Krier's Urban Typology and K. Rowe's Collage City and Contextualism.

These ideas regarding city form and its transformations will be applied and explored in an extensive exemplary study. The city of Thessaloniki in Greece was chosen for a number of reasons. It is the place where I have the closest personal experience and interest since I grew up studied there and intend to work there. A study under the proposed framework seems to be most appropriate for the city, as well as evocative in new ideas. Thessaloniki is the most remarkable example of an urban center in Greece which can claim a continuous life of more than 2,000 years. Founded in Hellenistic times, at the end of the 4th century B.C., it continued to stand and be rebuilt on the very same terrain. It has gone through several stages of economic development, usually as a regional center in a wider system of economic relations and spatial administration.

It has neither declined dramatically over long periods of time nor was its form determined in a single culminating moment in its history. It has gone through different regimes and civilizations -- Hellenistic, Roman, Byzantine, Ottoman and Hellenic -- all of which left their marks on the city. Its built form is an outcome of continuous transformations and superimpositions of layers. Available information from several studies in the fields of political and economic history, archaeology, architectural history, planning etc. allows the tracing of the city's development.

An enormous amount of material, given the complexity of the city's built form and the extensive time span which is covered, has to be organized in a way capable of conforming to the study's objectives, i.e. the identification of cycles of processes and outcomes in the city's transformations. The methodological problems of periodization and classification - description of the phenomena have to be dealt with from the outset. Both periods and descriptive concepts are made up categories which selectively isolate pieces of a complex and continuous reality in order to examine them in
light of a particular interest. Our study has to set its own working definitions. Our basic theoretical position on cities as products of societies, leads us from the start to a division in circles of major economic, social and political transformations inside which the production of city form will be examined. In this way we should be able to follow both basic parallel procedures, as well as define relatively autonomous expressions of space in relation to social phenomena. For the choice of descriptive elements of city form, again our consideration of cities as physical settings for the operation of socio-economic systems demands first of all an examination of how these settings are expressed in primary city functions. Secondly, we can concentrate on built form systems, the total pattern of circulation networks, open and built spaces and the architectural types, how they appear and organize the city.

After the clarifications we can present the total framework in which transformations of the city of Thessaloniki take place. An outline of the city's history and reference to its privileged geographic location and topography will be given as an introduction to the city. Historical periods of Antiquity - the Hellenistic and Roman Period, Middle Times - the Byzantine and Ottoman Period and Modern Times - The New City Plan after the 1917 Fire and From 1920's until the Present, will be analyzed in separate chapters. Each of them will cover the main topics of historical context, city functions, city form description and concluding remarks where a synthetic view of change factors and transformation outcomes will be taken. A systematic and well-documented analysis of the successive rebuildings of the city will be pursued in this setting.

In the conclusion, the ideas evoked by the analysis will be reconstructed around the themes of permanency, change and their dialectic synthesis in the phenomena of city transformations.
THESALONIKI - HISTORY AND TOPOGRAPHY

Thessaloniki probably was rebuilt on the location of an archaic settlement at the creek of Thermaikos Gulf but was founded anew in 316 B.C. as the military and commercial harbor of the Hellenistic Kingdom of Macedonia. Incorporated into the Roman Empire, it became an economically and culturally active capital of the province and, later, of an autonomous region. It became the second most important Byzantine city after its allocation to the east, a center of the Christian Church, a stronghold against multiple attacks from the north and the sea and a regional and international market. During the dissolution of the Byzantine Empire into autonomous kingdoms, for a period it acquired an independent vitality of economic activities, as well as political, cultural and intellectual affairs. The coming of the Ottomans established a new empire in which the city became a provincial industrial and commercial center with a strict social and economic organization among ethnic groups.

In the late 19th and early 20th century the city underwent a radical transformation. After having assumed the role of an agent in international scale commerce, it was incorporated into the Hellenic State and system of capitalist production and became the second major urban center after Athens. During this period the city expanded to 500 per cent of its historical Walled territory and acquired a new plan after the 1917 fire. Modern Thessaloniki underwent a second period of development during the 1960's with a rapid increase of its population and densification of its built form. Currently a city of 850,000 people, it specializes in wholesale commerce, industry, handicrafts and services and influences directly the entire areas of Macedonia and Thrace in northern Greece.

Although Thessaloniki, went through several historical periods which gave particular functions and institutions, socio-spatial arrangement and architectural form of the city, it none-the-less shows some basic common characteristics in its development. It has always been a provincial center of a wider socio-political system, a state or an empire, of great strategic importance for military or administrative control. It has consistently been a center of economic production
and exchange, a harbor and a station. It has never ceased to be a regional center, influencing the Macedonian territory but it has at times also been an active agent in international commerce. These interchanging roles which the city resumed in time should be primarily attributed to its geographic location which proved to be a crucial, positive factor in its historic continuity.

The city is an excellent natural harbor, an exit to the Mediterranean at the head of the Aegean Sea. At the same time it is also a natural station at the junction point of the land route axis, crossing N. - S. and E. - W. the Aimos (southern Balkan) peninsula. (Fig. 1) Thessaloniki has, therefore, been a convenient market place for the economic exchanges of the Central Balkans, Greece and Asia Minor territories and, in period of active international relations, an important stop between the Orient and European centers.

As far as its immediate environment is concerned, the city is in direct proximity to a rich plain and river as well as forests and mines. At the same time it is located at the geographic center of the productive mainland of Macedonia and has therefore consistently sustained its economic influence and function as a local market in its wider rural region.

Thessaloniki could thus successfully undertake and flexibly interrelate and combine commercial activities of varying types and scale. Because of this the city maintained historically its 'raison d'etre' and never went through long periods of dramatic decline. Parallelly, its stages of development coincide with its assumption of new important economic functions. It has historically, however, always been under the domination and dependence of a metropolis, following paces and directions of economic and cultural development predicted from outside centers. A provincial capital, the city has continuously been rebuilt around its harbor and market, in relation to its main entrances and axis of transportation, the crucial elements to its survival and prosperity.

The city's natural environment and topography have also been important conditioning factors for the development of its physical
form. (Fig. 2) The mild Mediterranean climate and surrounding landscape have been constant properties for the life in the city. Its amphitheatrical layout which follows the ground slope endowes it with interesting views and visual frameworks noticeable to those looking down from the hills or approaching by sea. The coast line to the south and a chain of hills to the north have been the natural limits for the city form. The 20th century expansion was linearly extended between them. The alignment of streets, steady, as we shall see, throughout history, was defined in relation to the coast line with the two major categories of streets introduced parallelly and vertically to it. The natural entrance to the city has been its western side, close to the junction of main land routes leading north, east and south-west following the lines of the river, the mountain chain and the coast. (Fig. 2) The transportation centers, the harbor and the station, have continuously kept their location to the west, where the major industries were also concentrated in the 20th century.

Around this basic structure, determined by environmental conditions, the city was rebuilt in new arrangements and forms in its successive periods of development. These are systematically discussed in the following chapters.
Fig. 1: Thessaloniki's location
Fig. 2: Main access routes and natural environment (Andrikopoulou-Kafkala et al., 1979)
ANTIQUITY

HELLENISTIC PERIOD

Historical Context - Important Events

In 316 B.C. Thessaloniki was founded by one of Alexander's successors, Cassander, ruler of the autonomous kingdom of Macedonia (at the head of the Thermaic Gulf).¹ Strabo suggests that the policy of population concentration from a number of small settlements in the surrounding area was applied, and this was the general practice of the Successors as well.²

Thessaloniki was planned as the major commercial harbor of the Macedonian territory. The site was chosen for its excellent qualities as a natural harbor and its appropriate location as an export center for the kingdom's productive mainland. The city's population rose quickly. Foreign nationalities were attracted and foreign mystery cults found fertile ground.

Like the rest of the Macedonian cities founded during this period, Thessaloniki had the status of a regular polis with its own Greek constitution which gave equal political rights to all of its citizens. The social organization was based on tribes and demes which were probably divided locally.³

The end of the period is marked with the conquest of Macedonia by the Romans in 168 B.C. and its final annexation as Provincia Macedonia in 146 B.C.

City Functions

As Macedonia entered into close political and commercial relations with the eastern part of the Mediterranean, Thessaloniki in all likelihood became the provincial port for the region's exports.⁴ Without doubt, the constant wars of the Successors resulted in the development of Thessaloniki into an important military harbor as well.

Administratively, the city was subordinated to the Kingdom of Macedonia but it also enjoyed a political autonomy primarily in the form
of self-management of taxation and municipal affairs.

Description of City Plan

The rectangular or "gridiron" system was applied in Thessaloniki's Hellenistic design, as was the rule for Greek cities founded after central decision. This model of planning practice, known as "Hippodamian," had archaic origins but was systematically developed in Ionia and particularly Miletus after the fifth century B.C. The whole city, divided into streets and building blocks, and above all, the stoas of the Agora were rectangularly laid out. The Walls, however, were irregularly built according to the needs of defense. 5

Archaeological evidence has supported the hypothesis that the two alignments which appeared in the city plan until the end of the nineteenth century went back to the city's original Hellenistic design. 6 At the southern part (Indication 1, Fig. 3) the grid was laid out in accordance with the coast line; whereas at the northern part, above the contemporary Egnatia Street (Indication 2, Fig. 3) the grid had a significantly diverging orientation, diagonal to the horizon points. The northern alignment was extended to the south in the fifth century A.D. (see Byzantine period).

The existence of two colliding grids cannot be explained as a result of adaption to natural conditions, since the common practice in antique Greek city planning was the application of a single rectangular grid regardless of irregularities of topography. M. Vickers, pointing to the only similar example of Miletus, formed the hypothesis of two distinct phases in the city's planning. 7 The first southern phase is placed in the late fourth century (during Cassander's rule) while the second northern phase is placed in the second century B.C. (during Philippe V's rule). This hypothesis is also compatible with the speculation that the preexisting settlement of Thermi was the nucleus of the first planned part of the city.

Regarding further elements of the city form, we only have suggestions from archaeological findings. A Hellenistic Agora probably existed at the northern part of the Roman Forum (Indication BIII, Fig. 3). Walls of a Hellenistic temple, Serapion, were found south to Egnatia
Street (Fig. 3) but are currently covered under modern constructions. Hellenistic Thessaloniki was a walled city but its limits are not known. The eastern edge probably reached the Byzantine Acheiropeitos church (Fig. 12). Masonry from the Hellenistic Walls has been found incorporated as construction material in later parts of the Walls.¹

The City Formation - Remarks

Since the city was founded by central action, this meant it was laid out with a plan. The design predetermined the formal layout, regular on the basis of the rectangular grid, as well as an organization within it of the main city functions. Established common practices of policy and design methods of that time were applied.

The two probable phases of the city formation were given distinct orientations, which implies a flexibility in the use of the neutral and rigid tool of the rectangular grid. The directory lines of the layout seem to have been determined by such factors as: the probable existence of an older build aggregation and the conditions of the physical environment, the coastline and the advantageous (in terms of view, lighting and ventilation) northwest-southeast orientation. These issues were important only in terms of the original decisions since soon afterwards the planning imposed its own order on the environment.

Although our direct information about the actual city form of Hellenistic Thessaloniki is almost non-existent, we can, nonetheless, speculate upon its basic organization and characteristics by having in mind the general prototype it followed. The central planning intended and produced a fundamental order in the city form. A first distinction was established by the Walls with the definition of the city's territory "inside" as opposed to "outside." A second distinction concerned the resolution of the public and the private domains. The Agora, the institutional-symbolic center of the city-polis was carefully given a concentrated form in cases of central design, and a centralized location in the total plan in blocks reserved particularly for this reason. The public centers also provided the open spaces in the city plan which was otherwise densely built. In the rest of the city the
blocks were given a regular layout so as to have standardized qualities. Only later would the future buildings impose a differentiation on the provided neutral basis. Consequently, the plan's implied qualities were: the creation of a center of public functions and spaces with a loose formal composition, however, as the complexes resulted from an accumulation of individual buildings, which in most cases only took parts of blocks; and a simple, rational design of residential areas with overtones of uniformity, rather than of an inbuilt hierarchy. These characteristics are definitely relevant to the origins of the Hippodamian model in relation to the democratic polis.

The clear structure that the city was given in its original design, i.e., a definition of built-unbuilt space and of generic functional elements of a street network and an institutional center would prove a solid basis for its future development.
Notes
1. The basic reference for historical information for the whole study has been Vakalopoulos, 1983.
5. Wycherley, 1969, Ch. 2.
Fig. 3: Hellenistic Plan (Vickers 1970)
Fig. 4: Thessaloniki in Hellenistic Times and City Plan in the turn of 20th century (Moutsopoulos 1980)
ROMAN PERIOD

Historical Context - Important Events

The Roman period begins with the victories of the Romans over the Hellenistic Kings in 168 B.C. and the annexation of Macedonia in 146 B.C. At that time Thessaloniki became the capital of Provincia Macedonia.

Via Egnatia, joining the Adriatic with the Black Sea (Fig. 5) was constructed in 146-120 B.C. The introduction of Via Egnatia had outstanding military and commercial consequences for Thessaloniki, the main station located approximately at the middle of the route.

After the establishment of Diocletian's "Tetrarchy" in A.D. 293, Thessaloniki became capital of one of the empire's four regions. Galerius became the first Augustus of the East in the early fourth century.

Thessaloniki was repeatedly endangered by the Goths in A.D. 269 and besieged by land and sea, but was saved by the army of Claudius. It was once again endangered, then saved, by Theodosius around A.D. 380. At that time Theodosius' general Ormisdas saw to the effective fortification of the city. This reconstruction established the final periphery of the walled city which was kept until the 19th century.

During Theodosius' regime a slaughter of 7,000 or more people, in punishment for the murder of the Gothic captain of the garrison, occurred in the Hippodrome which was subsequently abandoned as a "cursed spot."

With the death of Theodosius in A.D. 395, the Empire was divided into East and West. Thessaloniki was allocated to the East.

City Functions

The city's functions as a regional center were strengthened and clarified during this period. In the wider system of the Roman Empire the city possessed an important strategic location. At the junction point of naval and rural routes of north-south and east-west connec-
tions in the Balkan peninsula and the Eastern Mediterranean, it became an active commercial center during periods of peace.

Transition of population and ideas, as well as significant cultural activity, continued to characterize the city's life. Christianity, preached by Paul at the Synagogue of the Jewish community, soon found roots in Thessaloniki. By Galerius' times the new religion was well enough established to have martyrs -- a leading one was the Roman officer Dimitrios, future patron saint of the city.

During unstable times Thessaloniki has been repetitively used, either as a military back-up or as a strong-hold when attacks came down from the north. The defense works, the Walls and the harbor became important elements of the city form.

Under the Roman administration the city, first capital of a Province and later of a Region of the Empire, maintained its privileges of self-government. The extensive public works which the Romans undertook had a significant impact on the city's development.

Elements of City Form

The Hellenistic grid must have been upkept and elaborated during this period. There are two major sources of evidence for the location of Roman streets: archaeological remains of pavements, found in the course of excavations; and the position of the Gates in the fourth century Walls which marked the ends of the basic through-axis of transportation. Few changes were made to the entrances to the city in the next centuries (opening of new gates and closing of old ones). The main streets which survived successive rebuildings until the present go back to the Roman Times and are (Fig. 7):

-- Egnatia Street (Decumanus Maximus), from Chrysi to Cassandreotiki Gates;
-- Agiou Dimitriou Street, from Lytea to Nea Chrysi Gate; and
-- Venizelou Street (Cardo), ending at the Waterfront Gate.

As the street which crossed the Forum, parallel to and between Egnatia and Agiou Dimitriou, lost its importance in the future, the Wall Gates on either end were closed. Another street parallel to the
Sea-Walls connected the two southern corner Gates. Streets of the N.E.-S.W. orientation of Roman origins have been identified at the sides of the Forum and close to Venizelou, ending at the Leontos Gate towards the Harbor and the Yeni-Delick Gate to the north (Fig. 7).

Thessaloniki acquired a Roman Forum during the period. The date of its monumental construction is estimated around the second half of the second century A.D. The Forum was located between Egnatia and Agiou Dimitriou Streets (Fig. 7). Its northern part has been excavated. It was a closed complex with internal open courts at different levels, which followed the slope of the ground and were connected with monumental stairs. The remains of several of the stoas have been found as well as indications of the theater, library, stadium, gymnasium, exedras. One of the largest Roman bath complexes of the city took the northern border of the Forum. There Saint Dimitrios was martyred and the Basilica would later be built in his honor.

At the beginning of the fourth century A.D. a monumental complex was built on the eastern side of the city for Galerius' administration. For this reason, expansion of the city was necessary towards the area where cemeteries were previously located. A new line of eastern Walls also had to be built at a considerable distance from the old one. The project covered an area of 18 Ha and was centrally conceived and constructed. Its scale, layout principles, building types, construction techniques and architectural language were typically Imperial Roman. Parts of it show affinities to Diocletian's Palace in Spalato, consequently considered its probable precedent. The Complex was designed as an autonomous piece of the city along two vertical axes, approximately at the present location of Egnatia and Dimitriou Gounari Streets (Fig. 7). It was a composition of several parts. The "Rotonda," a cylindrical domed building for ceremonial purposes (according to the Pantheon prototype), was located north to Egnatia. A monumental street with arched stoas connected it with a Commemorative Arch of Triumph on Egnatia Street. South to Egnatia, the eastern part was taken by the Circus-Hippodrome. The Palatial buildings were located to the west and included an elaborate octagonal domed construction, probably a Mausoleum. The Complex in all likeli-
hood terminated at a harbor at its southern edge by the sea. The Rotonda, due to its continuous use for religious purposes, has been preserved through to the present. Part of the Triumphal Arch is still standing while foundation walls of the Palatial apartments and the Octagon have been excavated.

Like all big Mediterranean seaports, Thessaloniki should have possessed two harbors: an external Roman harbor at the end of the N.E.-S.W. axis of the Galerian Complex (probably on the same location of the previous Hellenistic); and an internal excavated one at the southwest corner of the Walls which was enlarged and fortified by Constantine the Great to be used as a base for his fleet (Fig. 7).

At the end of the fourth century, the city Walls were extensively reconstructed. Their enceinte, which would be kept stable in the future periods, was then established. The Walls formed a trapezoid with parallel eastern and western sides (Fig. 7). The southern Wall ran along the sea on the height of the present Proxenou Koromila Street (as opposed to that of Mitropoleos Street at Roman times). The northern part followed the hill line and terminated at an Akropolis at the north-eastern corner. The lower parts of the parallel sides were fortified with double walls. Towers for the enforcement of defense stood at several points and the curved artificial harbor of Constantine was well protected. The main Gates for the circulation of people and goods were located at the lower part of the parallel (four on each side) while at the southern part the gates opened toward the harbor. To the north the openings mostly served the circulation of troops in war time. The Walls were not only a necessary physical element for the city's survival but they also marked concretely its territorial limits.

A few remains of architectural constructions have been found which belong to basic building types of the period: two storey houses with internal open courts, a good number of Bath complexes at several locations and tombs of various types. The information is too scarce and fragmented for us to have an idea of the form of the greater part of the city.
Soon after the A.D. 313 Order of religious toleration, a first Christian church-memorium was built on the spot of the martyrdom of Saint Dimitrios, the Bath complex at the northern side of the Forum. However, the first Christian Basilicas started to be built only after the middle of the fifth century.

Transformations of the City - Remarks

During the Roman period the city underwent important transformations which have to be reconstructed with limited information. The two main institutional centers, the Forum and the Galerian Complex, have survived in pieces until the present due, basically, to use and archaeological interest.

The city seems to have undergone a substantial extension in size, which should have taken place with gradual rebuilding and without radical refutations of the existing plan. Only in a later phase were major new projects introduced which totally rearranged the city form. We have the first opportunity here to observe the directly related phenomena of the establishment of a new social and political system and the reorganization of the city. The new society's characteristics of a strong central authority and advanced administrative and engineering skills influenced its modes of treatment of built form. The Romans, although conquerors, in principle had a tolerance towards foreign cultures and their objective was the continuity and exploitation of the economic and other productive aspects of a place. The cities represented systems of resources and had an important role to play in the framework of the Empire. Attention should be drawn to two issues starting from Thessaloniki's case: despite the continuity in plan, a new order and form was introduced, which followed developed models and practices for the production of built space; and the particular city form already possessed a structure of similar qualities to the Roman prototypes which could stand as a satisfactory basis for further operations.

We can assume that in the regular and homogeneous street pattern of Hellenistic times the typical axis of the Roman city, the Cardo and the Decumanus, were then imposed. A major hierarchy which would
consistently persist in future times in all likelihood goes back to this period. The total street system was also further established and rebuilt, as the Romans undertook the extensive works of street paving and maintenance. The previous civic center of the Agora should have been the location of the Roman Forum which, with its new architectural types, introduced new functions and symbolic meanings in the city. We notice here the first case of appropriation of the institution-symbolic centers of the previous regime by a conqueror, an attitude that we shall see constantly reappearing in the city's history. We only have indications that the center of economic activities, the Market and workshops, stabilized their location at the proximity of the S.W. corner of the Forum, as well as expanded, due to the city's flourishing. Houses and baths (the basic private and public types of Roman architecture) were also spread throughout the city and should have completed its new form and image.

The most radical and long-lasting interventions, those which would be justified in time as persisting elements in the city form, came when the Regime was well established and the city had acquired particular functions and importance in relation to them. The administration center of Galerius had a double impact on the city form: an expansion of its size and a redefinition of its territory and boundaries; and the introduction of a new institutional and symbolic center for the needs of and with the image of a central authority. The project was built this time on virgin land for practical reasons of land availability but also had strong symbolic overtones of an autonomous and juxtaposing entity to the old civic center. The city form organization clearly shifted from mono-centric and bi-centric and a division between cultural and administrative domains was marked. The major fortified harbor for the service of military and commercial purposes was also built during this period. One more distinct center and pole for the development of economic activities was established. Finally, the Walls were given their stabilized periphery and although they did not affect the internal arrangement, they defined the city limits.

With the introduction of these elements a second phase in the city form development was completed. The Roman Thessaloniki was defined by
a new order and expression of spaces and architectural forms. The
generic functional elements of the Walls and Harbor would persist
for centuries. The uses and scale of the Imperial structures, on
the other hand, would soon be questioned. These should be given
viable transformation or they would fall to obsolescence.
Notes

2. The streets are mentioned throughout the study with their current names.
Fig. 5: Aimos Peninsula in 2nd Century A.D. (Dimitriadis, E.P. 1983)
Fig. 6: Roman Plan (Vickers 1970)
Fig. 7: Thessaloniki in Roman Times and the Walls (Gounaris 1982)
Fig. 8: Roman Forum (Vakalopoulos 1983)
Fig. 9: Galerian Complex (Macaronas 1970)
Fig. 10: The Archaeological Sites
Fig. 11: The Walls in the 20th Century
MIDDLE TIMES

BYZANTINE PERIOD

Historical Context - Important Events

The beginnings of a new period, the Byzantine, are placed at the end of the fourth century A.D. with the city's allocation to the Eastern part of the divided Roman Empire.

From the fourth century onwards the Balkans were under constant threat of attacks by northern tribes: Goths, Abars, Huns and Slavs. Thessaloniki remained the basic stronghold of the peninsula throughout the period.

There are reports of an earthquake of unusual strength around A.D. 620 which caused extensive damage to the constructions dating back to Roman times. After a successful resistance against a number of attacks, the ninth century for Thessaloniki was a period of peace and economic and cultural development.

In the early tenth century the city was besieged several times and in A.D. 904 was invaded by the Saracens. The invasion was followed by extensive damages and slaughter. In the tenth and early eleventh century Thessaloniki was threatened by the Bulgarians who laid claim to the Byzantine territory. The Byzantines finally imposed peace and stabilized their northern frontiers.

In A.D. 1185 the city was once more invaded, this time by the Normans. New damages and slaughter followed. It was occupied by the Franks of the Fourth Crusade from 1204 to 1224. In 1224 it became capital of Greek sovereigns until it was incorporated again into the new Byzantine State in 1246.

In the mid-fourteenth century Thessaloniki became a center of cultural production as well as of dramatic religious-philosophical and social struggles which culminated in the revolution of Zilotes.

After a sequence of Turkish, Byzantine and Venetian rule, Thessaloniki was finally occupied by the Turks and was incorporated into
the Ottoman Empire in 1430.

City Functions

The economic and administrative relations of the Byzantine Regime were based on agricultural production and a strong bureaucratic system. In the countryside the population was reduced and organized in small rural settlements while the important urban centers, like Thessaloniki, resumed specialized economic roles. One of the first was the distribution of monopoly goods which were under State control and operated by the upper class. Industrial production developed in the city by a middle class and was organized in a guild system. The importance of naval transportation for commerce increased during this period, especially when done at an international scale. Thessaloniki's harbor was an active center of economic relations between Byzantines, Venetians and Slavs. Fairs were also necessary for the economic exchanges between the city and the countryside. In Thessaloniki the "Dimitria" were held annually in October. A temporary city was then built outside the western Walls where people and goods from all over the Balkans and the Asia Minor gathered.1

The city was continuously a provincial capital of the surrounding territory of the Balkan peninsula in the several administrative divisions of Byzantine rule.2 In parallel, it has been consistently a basis for military defense used by the Byzantines and claimed by northern neighbors.

Christianity as the new established religion and, later, a strong institutional and ideological power in the Byzantine society was an important actor in the city's transformation. The Church's domain extended beyond strictly religious affairs, as it was a major landowner, had its own administrative institutions, and undertook social welfare.3 Respectively, the religious buildings came to dominate the city form in number and in scale.

After the desolution of the Empire in the thirteenth century, the city acquired political autonomy and power in the system of subdivided regions of the Balkans. Also as a result of the continuous wars and
instability, a rural proletariat gathered in the city. In the fourteenth century Thessaloniki became a center of significant original cultural production in the arts and architecture, as well as a place of evolution and conflict of pioneering philosophical and social movements of the times.⁴

Elements of City Form

From the fifth until the seventh centuries the major known interventions in the city form were the Christian churches, the centers of the recently established new religion (Fig. 13). These adopted the architectural type of the Basilica and were large complexes for the liturgical and symbolic needs of the Early Christians.⁵

The first Christian Basilica built in the city was Agios Dimitrios, a little later than 463. It replaced the small church previously built on the spot of the saint's martyrdom. It occupied part of the older Roman Bath Complex and was of significant size, similar to that of the present church. It was destroyed by fire and rebuilt in the seventh century (and several other times subsequently). The Acheiropoietos, dedicated to Panagia (Mary), was erected around 450, also on the location of previous Roman Baths. The church is the oldest Early Christian monument of the city, preserved and used until the present. In the mid-fifth century the Rotonda was used for Christian worship after necessary adjustments. It is believed to be the Asomaton or Archangellon Church of later literary references. Osios David, later the Chapel of Vlatadon Monastery, which is preserved until the present is believed to be part of a fifth century church. The archaeological remains of a large Basilica Complex, also standing on foundations of Roman Baths, were found below the seventh century construction of the Cathedral of Agia Sophia.⁶

From pieces of information we can assume that the unstable sixth and seventh centuries, together with the economic decline and drop in population, brought a shrinking and rearrangement of the form of the city. The old grandiose Roman constructions, irrelevant to the new economic and social context, were threatened by obsolescence. Parts of the institutional centers would be given new uses and additions
and would be in this way preserved (e.g., Rotonda) while others would lose their practical and symbolic functions, would be abandoned, and disappear (e.g., Hippodrome). In general, however, the Roman constructions, even though underused, should have continued as physical presences to compose the city form. Their extensive destruction is attributed to the 620 earthquake which marked a break in the city's development. Ruins of constructions were then left to be buried under the ground or were used as material for new buildings. The area of vacant land reserved for cultivation should have increased inside the Walls. The space was cleared for a new order and architecture to be applied to the city expressive of its new society. 7

We have gaps of information for the following centuries but we have indications about how the city form started to be established after the ninth century (Fig. 13).

By the tenth century a new institutional-administrative center was built at the N.W. district of the city. The Galerian Complex was probably seriously damaged by the earthquake in the eighth century and was subsequently abandoned. Traditions, continuity of name and, above all, continuity of use, prove the location of the Byzantine Palace. Turkish administrative complexes subsequently appeared on the same spot and the latest nineteenth century building is presently the "Deoikitirion" (Government Center) of the city's Prefecture. The Palace was destroyed to its foundations by the people during the Revolution of the Zilotes and its materials were used for the construction of Mourad II's Palace. It is not, therefore, strange that remains of the Byzantine buildings are not preserved. 8

The Harbor was a constant center of economic activities, which kept the old Roman location and construction and was consistently used during the period. By the fourteenth century a neighborhood of foreign merchants (Franko-levantines) with the name "Malta" was located at its proximity. 9

The city had a central Market which occupied the lower part of the Forum and its surrounding area. This was the "Megaloforos" or "Omphalos" of the Byzantines. The northern part with the stadium was destroyed by earthquake in the eighth century and made a place for new
buildings to appear. Most of the Roman constructions of the southern court, however, should have been standing until the end of the period. A remarkable case of continuity in space and use should be mentioned: the Panagia ton Chalkeon (Mary of the Coppersmiths) was built on a "profane spot", at the southwest corner of the Forum where the antique Chalkeftiki Stoa (Coppersmiths' Stoa) was located and where, until presently, coppersmiths' workshops were still concentrated. For a period of time until the ninth century a popular market moved around the Cassandreotiki Gate to a tax-free area. Besides its central market, the city also had several smaller specialized markets as the division of production in guilds demanded. Inns and hostels which provided spaces for accommodation and commercial exchanges were located in the western areas of the city close to the Gates, inside and outside the Walls. A Byzantine inn at the northeastern corner of the junction of Egnatia and Venizelou Streets would be transformed into the largest caravanseray of the city in the Turkish period.

The religious buildings, churches and monasteries, in many cases complexes including residences and hostels for the clergy, hospitals, orphanages, chapels, etc. were the new building types which, with their number, scale and architectural styles, characteristically dominated the form of the Byzantine city. We should in parallel mention here the legally established social and economic division of the city into neighborhoods on the basis of guilds and parishes. The numerous churches constituted the physical and symbolic-institutional nuclei of a new multi-centric organization of the city.

A large number of the religious constructions of the period were lost and the identification of their names and locations from literary references meets with many problems today. From the many monasteries and churches which densely filled Thessaloniki by the fourteenth century, only few survived until the present: the Vlatadon monastery at the eastern side by the northern Walls as well as several churches. From these we can follow the basic construction periods and architectural types which were developed in the city.

In the seventh century, in the middle of a threatening decline which the city underwent, a new Cathedral of Agia Sophia was built
to replace the Early Christian Basilica on the same location. The new building was three times smaller than its precedent, it adjusted its axis according to the northern alignment of Egnatia Street and introduced the domed Basilica church type to the city. It was supposed to reproduce in reduced size Justian's Agia Sophia of Constantinople. The Church underwent several reconstructions of which the most recent is currently carried out, for the restoration of the damages of the 1978 earthquake.\textsuperscript{16}

The next reported major religious building was the Panagia ton Chalkeon, built in 1028. It was the first church of the mature cross-domed Byzantine style in Thessaloniki. It is still in use today. It became the model for many religious buildings, most of which, however, have been lost without traces (Akapniou and Filokalou Monasteries, Nea Ecclecia, Ecclecia tou Kirtou, Agios Nikolaos).\textsuperscript{17}

The thirteenth century was a period of extensive construction of new churches, most of which are preserved and used until the present (Agia Ecaterini, Agioi Apostoloi, Profitis Elias, Theotokos Gorgopikoos, Metamorphosis tou Sotiros, Agios Nikolaos ton Orphanon, Vlatadon Monastery). Agia Ecaterini marked the beginning of the High Paleologian Style which was developed in Thessaloniki.\textsuperscript{18} A number of monasteries and small religious memoriums were also founded outside the city Walls.\textsuperscript{19}

We may assume that after the first centuries of decline the city enjoyed a flourishing due to its economic vitality. Sharp social differentiations in space should not have appeared among classes in residential areas, as the functions of state monopolies and guild production were not competitive.\textsuperscript{20} Literary sources mention a population of 100,000 in the twelfth century. The residential quarters of the city should have been gradually rebuilt more densely, probably six-story high residential units like those in Constantinople.\textsuperscript{21} A northern zone, however, towards the Walls was left unbuilt. The upper part of the city, above Agiou Dimitriou and Cassandrou Streets, is believed to have been given a first built form by the Byzantines. The irregular street pattern of the area probably dated back to these times, as the position of the original entrances of surviving
on Turkish streets indicates.  

In general, the geometry and regularity of the antique streets and blocks layout should have broken at the mature Byzantine city. The new constructions were situated, free from axial relations, and the built space borders did not keep alignments. The building blocks were internally redivided and reorganized loosely in irregular units, but the basic circulation axis of the street network was kept. Egnatia was the "Leoforos" or the "Wide Street" of the Byzantines and together with Venizelou Street attracted commercial activities around them. Other avenues, the parallel to the Sea-Walls and Agiou Dimitriou joined the Wall Gates. Agias Sophias Street, at the axis of new important religious monuments should have been established only at the end of the period as the Early Christian Complexes interrupted its course. Finally, the Walls, a security and a threat for the city's survival when enforced and neglected, respectively, continued to define the city's limits and territory. At the eastern and western areas outside them, the city cemeteries were located.  

Transformation of the City - Remarks  

The passing of the city into the social and political system of the Byzantine Empire was expressed in the transformations of its built space. The major stages can be identified.  

During the first couple of centuries there was no clear change-over to a new social and political system, as there was a great deal of continuity between the Byzantine and Roman administrations. A strong conflict, however, existed between the old and new world in terms of religion and cultural ideology which ended with the victory and establishment of Christianity. This situation was expressed in the city form, as we saw with preservation in total of the built fabric. The only major modifications were in the building of Christian religious complexes. We notice that the location of the known examples was either related to the old institutional centers (Agios Dimitrios at the border of the Forum, appropriation of the Rotonda in the Galerian Complex) or created new centers in the city (Acheiropoietos, Agia Sophia). As a rule, they took the space of previous bath complexes. This fact can be understood as a consequence of the availability of public land, necessary for the
size of the new complexes, but can also be interpreted as a yielding of the functions of the pagan society to the morals and commands of the new religion. The conflict of institutions and their symbols at this point was expressed by both appropriation-dominion of the old and creation of new centers. In terms of form, the new buildings were modeled after the Basilica, adopting the scale and type of public Roman-Imperial architecture. It should be noted that at the city pattern scale, the new complexes were original elements which introduced new qualities. They were placed freely, deviating from established axis and were introduced as important entities dominating the existing pattern rather than being subordinated to it.

A second stage developed after the intervention of a few centuries of instability and decline. It was between the 8th and 11th century that Byzantine society with its by then formalized economic relations, institutions, and culture came to establish new relations in the city. In built form, correspondingly, a period of negative transformations took place in which physical deterioration, augmented by natural disasters, was allowed to desolve Roman constructions. The institutional powers were expressed anew and with clarity in the city form: the church dominating with its numerous and spread centers, buildings and estates and the state rebuilding a palace in a new location. There was continuity within economic activities in their basic centers and locations (the Market and the harbor). These were further expanded and established an organization in units. With their original uses overcome, the Roman civic centers were partially absorbed in the new fabric. The residential sectors were thickly rebuilt and, in general, a condensed city was concentrated at the lower part of the Walled area, leaving the upper part for cultivation, crucial to the population's survival during the sieges. The basic axis of transportation and division in blocks were kept but the geometric alignment and regularity of lots found in the antique city were lost. Despite the basic spatial concentrations of administrative and economic activities, the city acquired a multi-centric organization with a remarkably smaller scale of institutional constructions and public open spaces than in the Roman period. This could be seen primarily as the result of a new economic and social order but also, in parallel, an expression
of the Byzantine culture's spirituality and esotericism. Architecturally, the forms also found an original functional and stylistic expression observed in the religious buildings. A first intermediate stage was introduced in the 7th century (Agia Sophia) and the high Byzantine style in the 10th (Panagia ton Chalkeon).

A third phase, during the last two centuries, was marked by the gradual dissolution of the socio-political system of the Empire in which the city temporarily reinforced its autonomous role as an international commercial center. During this period, the peak of the city form development was reached. Within the established spatial relations and patterns, new constructions, further densified and enriched the city. Simultaneously, an original version of the mature Byzantine architecture was formed. The social and political upheavals had consequences such as the violent destruction of the Palace, the symbolical center of the old institutions. In the last decades before the fall to the Ottomans the city gradually lost its population but its built form persisted despite the decline. The Ottomans found a deserted city standing as an available set of resources to be used and as such they appropriated it in their new social order.
Notes

2. Vakalopoulos 1983, p. 84.
5. Lavas 1980
6. Achaeologia 1983, pp. 18-22
8. Theocharidis 1959, pp. 16-18.
Fig. 12: Thessaloniki's Plan with Antique and Byzantine Monuments (Tafrali 1913)
Fig. 13: Thessaloniki in Byzantine Times
Fig. 14: Acheiropoitos Basilica and Agia Sophia Cathedral
Fig. 15: Panagia ton Chalkeon and Agia Ecaterini
OTTO MAN PERI OD

Historical Context - Important Events

After the Turkish occupation in 1430, Thessaloniki underwent a stage of threatening decline. The Turkish rulers soon took measures for vitalization, most important being the incentives which attracted the Jewish Immigrants from Germany and Spain after 1470 and 1492.

By the 16th century the population structure in three ethnic groups -- Jews, Turks and Greeks, was established and the city flourished as an industrial and commercial center in the Ottoman territory, reaching a culmination of prosperity in the 17th century.

After this period, peaceful conditions dissipated and the desolution of the Ottoman Empire started. Local industries and commerce to the Orient, dominated until then by the Jews, declined and were succeeded by economic exchanges between the Balkan regions and European centers operated by Greeks and Europeans. The city underwent periods of flourishment, then stagnation, keeping an average population of 40,000 people. Thessaloniki participated unsuccessfully in the Greek liberation revolution in 1821-1823. For a long period it was repeatedly struck by natural disasters, epidemics, fires and earthquakes.

In the beginning of the 19th century the city had 60,000 people. In the second half of the century European centers with increasing commercial interests in the area used Thessaloniki as a center which brought significant development to the city as well as the establishment of a bourgeois class.

From the first quarter of the 19th century the city was put under progressive Turkish rule which gave equal civil rights to the Jewish and Greek citizens. The city expanded and modernized. It acquired railway connections with Skopia-Europe and Constantinople in 1874 and 1896 and after 1892 new harbor constructions were built.

After the 1878 Turkish-Russian war, revolutionary movements broke out and at the turn of the 20th century the national claims of the ethnicities of Macedonia took the form of armed conflict. In 1908 the
Neoturks' revolution broke out in Thessaloniki while in 1909 - 10 the city was the base of a pioneering socialist organization in the Balkans, the "Federation." During the Balkan wars in 1912-13, Thessaloniki was occupied by the Greek army and annexed to the Hellenic State.

The city underwent phases of development which, allows for and in fact, demands an analysis of the sub-periods. These are: 1) mid 15th-mid 16th century, the beginnings of the Ottoman city; 2) mid 16th - mid 19th century, its establishment and development; and 3) mid 19th - beginnings of 20th century modern city, the emergence of the modern city.
Mid 15th - Mid 16th Century

This first period consisted of re-organizing the city according to the relations and needs of the new society. The socio-spatial structure upon which the mature Ottoman city would be further built was established during the first century of the occupation.

City Functions

A dominant Ottoman class, only part of the total Ottoman population, kept the exploitation of large estates inside and outside the city, as well, as its administration and military control exclusively in its hands. The latter ended up being a mechanism for the oppression of the indigenous population rather than for protection from external attacks.

The city's economic activities were enhanced by the incoming Jews who introduced weaving and commercial relations with Venice and Asia Minor. The rest of the population, the lower and middle class Turks and Greeks were involved in land cultivation, crafts and industry organized in guilds, and local commerce.2

Socio-Spatial Organization of the Population

The population increased steadily after the occupation when it had fallen to its lowest level of 7,000 people. According to census records, in 1478 the Turkish population was organized into small groups of 20-30 people (cemaat) while the Greeks were in larger groups of 100 people. By 1520 larger Turkish neighborhoods were established (mahalle) a large number of Jewish neighborhoods already existed and an increase was noticed in the Greek population. The total city population at that time was 25,000 - 30,000 people (1,375 Moslem, 1087 Greek and 3,143 Jewish families in a 1519 report.) Estimations for mid 16th century give 10 Greek, 40 Turkish and 12 Jewish neighborhoods.3

Indications are that during the 15th century the ethnic groups were mixed in the city areas. In this first period Greek and even Turkish neighborhoods kept Byzantine names and locations. These, however, were soon substituted with new arrangements in divisions and
names. In the 16th century the city's structure in ethnic areas and neighborhoods was established. Later on numbers would slightly increase with a change in limits and names.4

City Form

The city was deserted after the siege with its buildings deteriorating or torn down to be used as construction material.5 The new regime, however, soon moved to the next steps of appropriating the existing fabric and introducing new projects.

The occupation's objective was the economic exploitation of the city resources. With Mourad II's order an inventory of all estates and buildings was made. For the most part the large Church estates were distributed to the military and official elite to be used for cultivation and residences. Only the Mt. Athos Monasteries saved their properties in the city by negotiating with Mourad II. At the same time, the Greek population was encouraged to return and the Jewish immigrants were officially invited and practically given the deserted lower central part of the city.6

The defensive mechanism of the city, the Walls, the towers and the Akropolis, were occupied and put under control immediately after the invasion. The Akropolis became the base of the garrison and was exclusively inhabited by Turkish population until the end of the Turkish rule.7

The Christian churches were a category of buildings to which the occupation policy particularly applied. It was a common practice of the Ottomans to transform churches to Mosques in cities which were taken from Christians after a siege. In Thessaloniki this took place in phases, one at the end of the 15th century and one at the end of the 16th century.8

Acheiropoietos was the first church to be turned into a mosque by Mourad II who followed the tradition of praying for his victory and turning over to Moslem worship the largest church of the occupied city. All the major Byzantine churches gradually underwent the same fate (Profitis Elias, Panagia ton Chalkeon, Taxiarches, Moni Latomou,
Agios Panteleimon, Agios Dimitrios, Agia Ecaterini, Agioi Apostoloi, Agia Sophia). Last came the Rotonda, in 1590 - 1591, after having temporarily become the metropolis of the Christians. Only minor alterations had to be done for the Christian buildings to cover the liturgical demands of the Moslem religion: changes in the arrangement and decoration in the interior, addition of a wooden porch, a fountain and a minaret (the symbol, historically, of the church's occupation) outside. The occupation of smaller churches continued even in later times.

On the other hand, even when not transformed for Moslem worship, churches were taken from the Christians. A substantial number of buildings, churches and chapels, were closed by the Turks and were used either as storage spaces or were left empty after the city's occupation. The few Greeks were themselves unable to maintain the religious centers which remained in their hands. It was during this time that many Byzantine constructions were lost without traces. Literary sources refer to four major churches left to the Christians by Mourad II but these were all taken by the end of the 16th century. The religious centers and the population of the Greek neighborhoods would be stabilized only in the following centuries.

The addition of important new buildings in the city were begun by Mourad II who built a palace (Seray) in the north-west area of the city on the location and with the materials of the destroyed Byzantine Palace, of which there were no remains. In 1444, the Bey Hamami was built by Mourad II. This structure, very important in the religious and social life of the Ottomans was placed along Egnatia Street at the southern-eastern corner of the previous Byzantine Market. It is still standing today and was operated as public baths until recently. The Hamza Bey Cami was built in 1468. It is the largest mosque on Greek soil and an original example of Turkish architecture in Europe. It was located at the north-west corner of the junction of Egnatia and Venizelou Streets. The irregular form of its volumes was determined by the presence of important neighboring constructions. The mosque underwent extensions and reconstructions and presently houses shops and a cinema, still at the center of Thessaloniki's market
area. The Alaca Imaret or Ishak Pasha Cami was built in 1484 at the north of the city as part of a larger complex which included a religious school and a house for the poor. It is one of the few surviving mosques in the city. Finally the Bedesteni, following the closed market type common in Ottoman provincial commercial centers, was also built in the 15th century. It was located on Venizelou, south to Egnatia Street and was a strong, spacious construction where the luxury shops (for cloth, spices and jewellery) were concentrated for reasons of safety and taxation control. 11

First Stage of Transformations - Remarks

We have the opportunity to observe here, in the beginning of this period, how the passing to a new socio-political system broken by war and occupation was expressed in the city form. The basic attitude of appropriation which was applied will be discussed in light of the following two remarks: the economic base of both the previous and the new system did not change drastically; it was basically institutional and cultural differences that were introduced and the new regime clearly chose the politics of juxtaposition and dominance over the subordinate minorities.

The issue which first endangered and then secured the city's survival was the restoration of its productive activities. Although particular kinds of activities were introduced, their general categories, scale and organization remained unchanged: land cultivation, local and international naval commerce, industrial production in guilds. The newcomers - merchants - could easily adjust to the existing centers of the market and harbor which were both necessary and efficient for their demands. Land ownership was the second important economic issue which the new regime immediately resolved. The large estates were kept, as such, but fell into the hands of a new aristocracy and church while the restoration and protection of the middle class position and property was an official policy (Greeks and Jews were especially encouraged). In this view, the locations for the basic public functions (Palace and religious centers) and of the residential sectors had substantial reasons for continuity.
On the other hand, in the hierarchical system that the new theocratic society wanted to establish, differences and conflicts took a polarized expression in religious and cultural matters. With the transformation of Christian churches to Moslem mosques, the new dominant society exercised its power and imposed its own new content to the symbols of the previous one creating, at the same time, its absolute symbols of occupation. For this reason the Christians were deprived of any major religious construction in the city; instead all of their buildings were transformed to Mosques even when doomed to obsolescence in the middle of non-Moslem neighborhoods. The similarity of division of Christians and Moslems in parishes and neighborhoods was another reason promoting the immediate use of the existing multicentric fabric of the Byzantine city.

Finally, despite these basic continuities, a new social order as well as functions and cultural prototypes were introduced in the city. This was soon made explicit by the building of landmarks, impressive architectural constructions of important new uses in the points of reference of the new order which would be gradually established in the city with the necessary time lag for changes to be expressed in built form.
Mid 16th - mid 19th century

City Functions

With a basic social and political structure stabilized and land exploitation activities continuing, the city went through phases of development in relation to its assumption of new types of industrial production and commerce. In the 17th century the flourishing cloth industry and economic exchanges between Venice and the Ottoman Empire, both operated by the Jews, made Thessaloniki a richly populated and culturally advanced provincial town. However, after the importance of the commercial routes of eastern Mediterranean for Europe diminished, the city's prosperity fell particularly in its Jewish community. In the 17th century also a large number of well-off Jews converted to Islam and became a separate social group, the Donme. Greek, French and English merchants, taking advantage of the new political relations of the Ottomans introduced commercial activities with the Balkan region and central-western Europe. These acquired successive specializations according to the demand of an international market and were greatly affected by political instability. This situation of periodic vitality and decline continued until the 19th century.12

Socio-spatial organization of the city in ethnic areas and neighborhoods

The division of the city population into ethnic neighborhoods and area was a result of the social and economic organizations within ethnic groups which the Ottoman rule imposed. The neighborhoods were legally established units of social and economic administration (for taxation, draft etc.) usually defined as parishes with their religious centers. This system of division was constantly implemented in principle, although changes in the total number of neighborhoods appeared in time together with population fluctuations.13

From systematic studies of archives, estimations about the city neighborhoods (their number, names, population, territory and buildings) have been made for each century of the Turkish occupation (15th to 20th). For the 19th century 43 Mouslim, 16 Jewish, 12 Greek and 1 European neighborhood are recorded. All the information about their spatial organization has been written down on the city's plan of that
During the period the city population underwent fluctuations, mostly because of epidemics, and by the 19th century the total exceeded 50,000 people (Fig. 18).

From the 16th century onwards main areas were differentiated in the city (Fig. 17): the Turkish, at the northern part of the Walled territory; the Greek, at south-east part close to the Walls; the Jewish, at the southern central and western part of the city; the European (Franko-levantine) neighborhood south-west at the edge of the market; and the market, mixed with Jewish residences, at its traditional location around Venizelou Street south to Egnatia and at the new extension outside the city Walls towards the Harbor.

The proportion of the population into the areas occupied by the ethnic groups indicates that the density in people and buildings should have been lowest in the Turkish and highest at the Jewish neighborhoods. From descriptions, basically of travellers, we know that the ethnic areas were noticeably different in form. The Turkish area was considered the most beautiful and richest with nice views, spacious arrangements of buildings among gardens, well paved and maintained streets and good house constructions in stone or in wood. The Greek area was more modest, simple and dense. The Jewish was described as the most dense, dirty, poor and neglected. The European neighborhood had free-standing mansions following western prototypes. The residential units were correspondingly of different types as to their size, interior spaces and exterior facades. This was necessary given the differences in the family unit composition and life-pattern of the several cultures. It was also partially a result of institutionalized control which imposed restrictions on the height (12 peches - 7.68 mt for the Turks and 9 peches - 5.76 mt. for the other ethnic groups except for the Europeans) as well as on the coloring and decoration of houses of the social groups. Restrictions were also put on the number, size and form of the Greek and Jewish religious buildings which were not to prevail on and differentiate from the rest of the neighborhood constructions. Limitations were to a great extent self-imposed and controlled by the communities which wanted to avoid provocation of the authorities. The modesty of the appearance of the Jewish area in particular
was attributed to their traditional tactics and values of creating unnoticed environments on foreign ground and reinforcing their belief in the quick passing from life.\textsuperscript{18} The stabilization and reproduction of housing types was, finally, a matter of cultural convention, given the traditional modes of building production of all three communities.

City Form

The plans at the end of the 19th century, although presenting a further developed stage of the city form of the Ottoman Thessaloniki, are important documents on which further analysis will be based. Three areas of distinct characteristic patterns can be noticed in the plan, two being extensions of the city during this period (Fig. 16).

The upper part of the city (Baeri), although probably first inhabited by the Byzantines, was systematically populated and built by the Turks.\textsuperscript{19} North to the last long parallel of Cassandrou Street, the layout characteristically changed with its lack of geometry and regularity. There are no indications of a central planning of the area which should have been the outcome of gradual building. The lines of streets and the arrangement of buildings seem conditioned by factors such as topography, view, orientation and neighboring constructions. The streets were curving but the major among them (Olympiados and Athenas) corresponded freely to the long parallel axis of the old city. Built blocks had irregular shapes and access was provided in most cases by secondary dead-end streets rather than peripherally as in the grid system. The streets did not have regular width and boundaries and opened up in irregular spaces which, with their trees and fountains, formed neighborhood "squares". The area by the northern Walls, having houses surrounded by gardens and fields, was not densely built until the 19th century.

A new Market area (Misir Carsi) developed outside the Walls on top of the infill of the artificial Byzantine harbor.\textsuperscript{20} The pattern, although close to rectangularity and regularity, showed a division in numerous small blocks unusual for the rest of the city.
Consequently, a large portion of the area was taken by streets which were numerous and without a hierarchy in their layout. The same characteristics appeared also in the quarters of the market inside the city. The multi-fragmented pattern can, therefore, be understood as a result of the demands of spatial organization of the guild markets which were usually streets with shops located along either side.21

In the rest of the city the two antique grids despite the distortions in their street alignment and block division, still persisted as the basic system organizing the city form. Egnatia and Venizelou were again unquestionably the basic axis of the city. The streets, however, became all the more narrow with curving boundaries and dead-ends. A gradual densification and complication of the city fabric is assumed when comparing travelers' descriptions of the 17th, 18th and 19th century.22 The large open spaces in the city were also being taken by buildings and in the 19th century the only ones left were the Market (Un Kapan) above Egnatia and the space of the ancient Hippodrome, although a row of constructions already shrunk its periphery.23

After having discussed the built form pattern and the city division in ethnic areas and neighborhoods, the locations and architectural forms of the important public functions can now be examined.

Detailed information about the Market areas has been collected from census and travelers' reports which give the particular locations of the several guilds, as well as the number and type of shops, workshops and industries between the 17th and the 19th century. The shops were small with narrow facades on the streets which were usually covered with wooden constructions for the protection of people and goods from the sun. The Bedesteni continued to mark the center of the city area. In the 19th century Egnatia Street developed axially as a market. The authorities tried with legal measures to keep the market structure stabilized locally in order to achieve efficient taxation control.
In relation to the market activities the city continued to have a large number of places for the accommodation of travelers and commercial exchanges. These were concentrated around the Golden (Vardar) Gate and extended to the new Market area outside the Walls. Thessaloniki was also famous for its numerous places of popular entertainment, taverns, wineries, and cafés, also located close to its western entrance. The two main hostel types were the "chani" and the "caravan-seray". The big known caravan-seray of the city was found at the north-west corner of the Egnatia and Venizelou Streets junction and was believed to be a renovation of a Byzantine one.25

The administration center maintained its location at the north-west area of the city. Two administrative authorities, of the city and the province of Thessaloniki, had their headquarters built close by. These were big complexes (Konaki), also including apartments for the charem, the police, offices, prisons, services, stables, baths, temple and a tele-communication center.26

The religious centers of the three ethnic groups were spread in their several neighborhoods. The Muslim places of worship were of two basic types: Cami (Mosques) and Mescid (small prayer houses). They were numerous and easily satisfied the needs of the Ottoman population. The names, location and history of 38 Mosques and 49 Mescid of Thessaloniki are known. These were either the transformed Byzantine Churches or original constructions. The most important among the later were the Akce Cami (on the same location as the ancient Octagon and, according to tradition, the previous Christian Church of Agia Anastasia), the Kara Salih, the Suleyman, the Burmali, the Pismaniye and the Saatli or Selim Pasa Cami.27 It should be noted that only few grandiose Mosques were built by the Turks. The greatest number of constructions were simple provincial temples for the litourgical needs of the population and the transformed Christian Churches came to be the major Muslim Temples of the city. In general, a continuity in the location of religious centers was kept (from Christian to Muslim), even in the case of new buildings. This also applied to the numerous Muslim monasteries (Tekkes) which the city had in various neighborhoods as well as outside the Walls, 32
at the end of the 19th century. Well-known was the Mevlevihane Tekkessi, outside the western Walls, probably on the location of the Byzantine Monastery of Agia Matrona. 28

After the gradual occupation of their major Churches and the restriction for erecting new ones, the Greeks had to use the available existing smaller churches and chapels, most of which were owned by Mt. Athos Monasteries. They were 15, including the Metropolis at the southern-central part of the city. With few exceptions, these churches were destroyed several times, mostly by fire, and were rebuilt in the simple manner allowed by the Turkish authorities. Only three of the Byzantine Monasteries continued to operate during the Ottoman period (Vlatadon, Agia Theodora, Laodigitria). The first two were the religious centers of greek neighborhoods located inside the Turkish and Jewish areas respectively. 29 In the European neighborhood in the 18th century the Jesuits renovated and sensed an old 16th century construction located where a Catholic Church was first built in 1322. 30

The Jewish community traditionally wanted their synagogues to go unnoticed, consequently they were found on remote streets with plain exterior walls. Many of them kept the names of places of origin of their communities. Together with whole Jewish neighborhoods, they were burned and rebuilt several times. By the 17th century there were 23 Synagogones in the city. 31

As for the religious buildings are concerned, the general observation can be made that on the city scale the Moslim Temples clearly dominated within number and imagery. Thessaloniki was referred to as the city of Mosques' by travelers who were impressed by the view of minarets in the city's skyline. 32

As far as other public buildings are concerned, during the period Thessaloniki acquired a good number of Public Baths (Hamami). The traveler Evliya Celebi mentioned 11 in the 17th century. 33 The location of 7 has been identified and five of them (Bey, Yahudi or Halil Aga, Pasa, Yeni and Kule Hamami) are still standing in the city. Most of them continued their operation until the 20th century but nowadays are either empty (in the property of the Archaeological Service)
or, like the Mosques, house shops and entertainment activities. Community centers, schools and welfare institutions were spread in the various neighborhoods. Public fountains distributing drinking water were important local landmarks, usually at cross-roads and under trees, in small openings creating neighborhood squares. Cemeteries and mausoleum (turbe) of Turks were spread inside the city, usually close to Mosques, while cemeteries of all three ethnic groups were found outside the city Walls.

The antique institutional centers of the city were left during the period as open spaces with their construction ruins slowly disappearing under the soil. They were gradually taken as available land and built on in order to house the rising population. The Forum was taken by a Jewish neighborhood, the Hippodrome by a Greek one and the Galerian Palace by a Turkish. It seems, however, the standing fragments of the old buildings were kept and incorporated by the new built environments. The most famous, recorded cases among them were the Roman Gate of the western Walls, Galerius' Arch of Triumph on Egnatia and the remains of a two-story Stoa with anthropomorphic pilasters of the Roman Forum. The latter emerged from a Jewish house and had the popular names of "the Idoles" by the Greeks and "the Incantadas" (the Enchanted) by the Jews. These were stolen by a French archaeologist in mid 19th century and are found today in the Louvre Museum. During this period the first expressions of archaeological interest and incidents of robbing artifacts of antiquity were introduced in the city of foreign visitors.

Transformations Completed - Remarks

The establishment of an economic and social order under the Ottoman rule covering a long period of time and the paralleled densification and rebuilding of city form closed a further stage of its transformations.

The double structure of the social and economic system which differentiated ethnic-religious groups but organized them internally on the common basis of neighborhood and guild units gave its corresponding characteristics to city form. We have already observed
the continuity of major uses and places in the city such as the Market, the Harbor and the Palace in relation to a reproduction of basic types of land ownership and economic activities. The organization in neighborhood units by repeating on a similar scale residential aggregations and their centers of public and religious life, constituted and implicit common structure in the city. The persisting elements of the ancient plan the major streets crossing through the city areas and the division in basic building blocks, also reinforced unity of the built fabric (with the exception of the new extensions). The differentiation in ethnic areas and neighborhoods was most explicit in building shells, as it was expressed in densities, architectural types and styles.

The location of ethnic groups was established after a first selection of environments had been made. The dominant Turkish group moved to the north of the city where its fields were cultivated and the open land allowed expansions of constructions with a new pattern and comfortable living conditions. The Jewish group, as well as the Europeans, were attached to the center of commercial activities while the Greek group concentrated on the eastern area. The enclaves of individual neighborhoods inside foreign areas implied that local economic conditions, mostly land ownership, allowed exceptions in the otherwise clear division.

The establishment and preservation of a social hierarchy was objective of the Ottoman rule expressed and operated to a great extent through spatial relations. The stabilization locally of population groups and economic activities was a basic control policy. A lot of measures regulating more or less directly the production of built forms were aiming, mainly, toward economic and social issues (e.g. the restrictions for the height of buildings were applied as a simultaneous control for the economic exploitation of land property, buildings morphology, hygienic conditions and protection of residential areas from fire -- favoring the Turkish group).

Apart from staticism, the established social-spatial order had further consequences for the production if city form. Central action in the form of public works, maintenance, infrastructure etc. was not, as a rule, undertaken but was left to the communities. Local scale
changes were not promoted but the city was gradually rebuilt by successive substitutions of single units-buildings. An important reason for this was the law qualities of the construction (usually made of wood or mud bricks) which easily deterioried in time and were most susceptible to destruction by fires, the most frequent city disaster during the period (there are reports of big fires for the years 1510, 1545, 1560, 1569, 1587, 1610, 1620, 1734, 1740, 1840, 1849, 1988, 1890, 1910). As a result, distortions in the geometry of lots and street lines accumulated at a local scale but important changes in the total pattern were not undertaken. Therefore the latter was preserved in general. The city form was reproduced without innovations by means of simple legal restrictions and a self-regulatory mechanism operated by the residents-builders. This processes was appropriate and efficient, given the economic and social framework, and, without major problems, produced a balanced organization of functions and forms in the city. This, however, would cease to be the case by the end of the 19th century.
3) Mid 19th - Beginning of 20th Century

Economic Functions and Socio-Spatial Framework

The mid 19th century marks an important threshold in the city development. As a result of new demands in international markets and over a century of the accumulating effects of a decline in the system of Ottoman rule (wars, inefficient administration, loss of territories etc.) the city lost its productive resources and underwent hard times. Rural production fell and commerce in the Balkan territory conducted by the Greeks, was ruined. The city lost population which had for a long period remained static -- around 40,000 people. In the 1850's, however, Europe began new tight relations with the Ottoman Empire aiming at the latter's political and economic subordination. Thessaloniki then assumed the role of an agent-city for the commerce of European centers (French, English and Austrian) in the Balkan region. The wholesale flour commerce became most active and gradually became concentrated in the hands of a few wealthy merchants, mainly Jews. Commercial activities constituted the base of the city's economy, although industry was also introduced from the 1870's. The population increase was rapid: 90,000 people in 1880, 120,000 in 1895. In this framework, the first appearance of an upper bourgeois class and proletariat groups took place. The new social and economic phenomena were soon expressed in city transformations.

Important changes came at the political level as well. From 1839, a period of modernization of the Ottoman Empire (Tanzimat) started which was further promoted after 1856. Radical steps were made in two basic directions: equal civil rights and legal protection were given to all non-Moslem minorities of the empire; and the administration was reorganized in the model of the French State. This framework accelerated the development of social and economic phenomena and had important consequences in city form production. However, neither this modernization or the Neo-Turks revolution, which broke out in Thessaloniki in 1908, were able to catch up with the change. The demands of ethnic minorities for creation of independent national
states kept rising. Thessaloniki's case was resolved in the Balkan Wars, when in 1912, it was annexed to the Hellenic State.

Changes Related to City Form

The total changes took particular expression which directly and crucially affected city form. These can be defined as:

1) Population increase and city expansion.

By the end of the 19th century the city had a dramatic rise in population which in less than 50 years was tripled exceeding 120,000 people. The consequent result was the city's densification and expansion. The Walled city was all the more densely built and inhabited. Construction took over open spaces until none were left. After the wave of restrictions concerning ethnic neighborhoods the height of buildings rose throughout the city. The most important event, however, was the city's extension beyond its historically defined Walled territory. (Fig. 24). The Walls were, in fact, by now obsolete and an obstacle to the city's smooth operation and extension and their southern periphery was demolished between 1873 and 1911. The new areas built were an eastern suburb and immediate extensions of the old city on both its eastern and western side.

2) Emergence of new socio-spatial organizations

Thessaloniki's population continued to be a mosaic of nationalities in the 19th century. The 1913 census gave 61,500 Jews (39%) 46,000 Turks (29%), 40,000 Greeks (25%) and a small number of Europeans, Armenians, Gypsies, Servians and Bulgarians. However, the institutional and functional ties of the ethnic groups and neighborhood system were continuously breaking and new social and spatial differentiations based on income and class started to appear. First the new ethnically mixed upper bourgeois class of wealthy merchants created its own territory by fleeing outside the old city where available land allowed high standards of living conditions. Originally an area of resort villas, it became a suburb of permanent residences after the tramway connection in 1893. In the new areas at the edges of the old city the population was still characterized by
ethnic concentrations as well as income levels. (15,000 lower class Jews and Bulgarians in the western suburbs, 15,000 petty and middle bourgeois in the eastern suburbs). Inside the old city the ethnic areas maintained their separation and identity. The market, by now the economic activities' area, also kept its traditional location but expanded south-west.

3) Introduction of a new legal framework and administrative authorities for the regulation of city form.

Thessaloniki acquired Municipal Authorities (a mayor and a council) for the first time in 1869. These undertook centrally the maintenance of infrastructure and public spaces and were given the power to play an active role in the transformation of the city fabric. This was made possible by a new legal framework which for the first time determined issues concerning rights and duties of urban estate. The laws on "streets and constructions" were continuously elaborated between 1864 and 1891. Renewal and regulatory works were undertaken in the old city, as well as outside, preparing the ground for new extensions. The interventions included, as we shall see, provision of infrastructure and transportation network, demolition of the Walls, widening and alignment of streets, embellishment of public spaces and layout and building of destroyed or new areas according to a new plan.

4) Introduction of a new technology.

The city form modernization was directly related to the technological innovations which opened up new potentials and demands for its expansion and change. Thessaloniki acquired railway connections with Europe via Skopje (1874) and Instabul (1896). After the demolition of the Sea Walls, new docks and harbor facilities started to be built (1892). Public tramcar service was introduced (with horse power in 1892 and steam power after 1907). The city acquired a water system (1893), gas (1890), sewage (1890), and services of fire brigades, public lighting, hygienic control, etc.

5) Introduction of new building types

The new range of economic activities brought quick and drastic
changes in city form. A new transportation center, the railway station was introduced at the south-west area. The first industrial plants appeared by 1900 and some located at the far eastern side, but most of these plants were found in the western extension of the city. The old market expanded its area and transformed its uses including banks, offices, companies' headquarters, department stores, hotels, luxury cafes and restaurants. New housing types, bourgeois urban residences and suburban villas appeared inside and outside the old city.46

6) Introduction of architecture as a specialized theoretical and professional field.

The new types and scale of constructions and the influences from close contacts with Europe resulted in the import of an already well developed architectural profession. The architects, mostly foreigners, introduced the theories of Neoclassicism and Eclecticism which prevailed at that time and which gave formal expression to the above mentioned new building types.47

We can close this reference to change factors by noting that at the turn of the 19th century the city in total, as an existing built environment, appeared to be problematic and inadequate in providing for new demands which were: accommodations of an increasing population, satisfactory living conditions according to new advanced standards of hygiene and comfort; efficient operation of economic activities (a good transportation network and appropriate spaces for storage and commercial exchanges); and protection from fires, betterment of utilities and increase of the market value of urban estate property.

New elements in City Form

A number of interventions in the form of important urban and architectural public and private projects modernized the city. The main works were:

1) Demolition of the Walls

The Sea Walls were the first to be demolished starting in 1866. From their construction material a street and a quay were formed
along the water. The stifling lower city was opened to sea breezes and acquired a broad visual horizon. In 1889 the demolition of the eastern and western southern sides of the Walls started and were completed until the New Golden Gate (Islahane Kapisi) and the Golden Gate (Vardar Kapisi) in 1902 and 1911 respectively. The southern part of the city was thus freed from boundaries to its extension on both sides.

2) Regulation or construction of important arteries in old street network.

Street works (Fig. 25) started with the alignment of Egnatia in 1887. Venizelou and Agiou Dimitriou Streets were widened from the new Government Center (Konaki) through their southern and eastern ends in 1867 and 1875 respectively. Two new avenues, Vasilis Constantinou and Vasilissis Sophias were constructed along the previous Walls lines at the southern and eastern part of the city in 1866 and 1889. The municipal authorities also undertook the planting of trees and lighting of major streets and the creation of gardens at the center and southern extension of the city (Pasa and Behtsinar Gardens).

3) Rebuilding of the business district and the transportation centers at the southern-western part of the city.

After a fire in 1856 which totally destroyed the old Malta neighborhood, the area was rebuilt. (Fig. 25) The Ottoman Bank at its southern part marked the new center of economic affairs. New docks for small and large ships started to be built in 1866 and 1892. These, as well as the harbor market, were paved with granite stones. The railway station construction started in 1871.

4) New parts of the city were built.

We have already mentioned the city extensions east and west to its old Walls. The availability of land made it possible for projects of "social housing" to be undertaken by communities which bought large lots and built collectively. Some areas show a rectangular street layout but it is not known if this was imposed by the municipal authorities or the new residents took advantage of the
The eastern area extending to the "Small Carabournou" Cod, known as the "Castles" or the "Countysides", was the upper bourgeoisie suburb which, after the 1889 demolition of eastern Walls and construction of a basic street along the coast line, developed very rapidly. Speculation on land took place on a large scale as fields were divided in lots and resold at high prices. Middle class suburbs were created to the north but the linear zone extending parallel and close to the sea kept its low density with free-standing two or three story mansions surrounded by large gardens.

The most extensive rebuilding operation, however, was carried out in the central-southern part of the city, at the heart of the Jewish area after its destruction by fire in 1890. The new legal framework was applied which, taking advantage of extensive destructions by natural causes determined the replacement of the old irregularly built form pattern with a new regular plan. We do not have any information, however, about the implementation process concerning the redistribution of land and relocation of the old residents. The redesigned area of which the exact limits have been calculated, is immediately noticeable when the 1882-83 and beginnings of 1900's plans of the city are compared. (Fig. 26)

The design closely followed the law which demanded a new layout and which ignored the previous estate limits (as if they were fields). The street network should keep straight alignment, minimum width and exclusion of deadends. The building blocks division in lots should, as much as possible, give rectangular shapes, keep old prices and values, reproduce original facade length and have access from the street. The area allotted to public spaces, mostly streets, did usually not exceed 25% of the total, was to be considered as proportionately taken from all lots and automatically compensated by the higher value of estates due to the new design.

The particular plan was characterized by the introduction of a grid system with flexible geometry and maximum transparency, i.e. number of streets. The orientation was loosely parallel and perpendicular to the Sea front line. An autonomous underlying principle or
scheme was not obvious and the new arrangement seemed conditioned by the existing pattern. Streets were realigned so as to join the old ones with the new, resulting in multiple divisions of blocks, which could not be continued beyond the burned area. It is clear, therefore, that the street system was the tool used for the new organization of space. Uses were not predetermined and the basic functional and aesthetic control of built form (including efficient transportation channels, hygienic conditions and protection from fires) was operated again through the regulation of street widths and corresponding building heights. The formal hierarchy of the pattern did not prove irrelevant to the socio-economic principles applied to it afterwards: Agias Sophias Street, the widest in the design, soon developed independently from the rest of the area as "the street of rich houses."

5) Intense construction activity was undertaken by the public and private sector.

The Turkish State undertook the construction of important administrative and other public buildings. These were spread out in the new enlarged city territory: the Government Center, at its traditional location and at exactly the junction of Venizelou and Agiou Dimitriou Streets; a public school and a hospital just outside the eastern edge of the city; Military barracks at the eastern open area close to the old Walls; and a Donme Mosque and a hospital at the outer eastern suburbs. The communities were also encouraged to undertake public or welfare projects (hospitals, churches, social housing).

The new needs arising out of the city's economic functions as a center-agent, accompanied by plentiful capitol, brought the quick rebuilding of the business and residential areas. New urban architectural types such as banks, office buildings, warehouses, hotels and department stores transformed the old market while whole streets and areas were rebuilt with residential multi-story mansions and suburban villas. For the most part these projects were undertaken by architects. Eclecticism flourished, in particular, as it
had an appeal with its decorativism and symbolic connotations to
the nouveaux-rich, as well as to other groups of an ethnically and
socially mixed, transforming society. The western architecture
idioms found a modest and impure expression which the financial,
technological and cultural setting of a provincial center allowed.
The transitory stage in the modes of architectural production and
types of projects was evident in the total of city form and physiog-
nomy. The new forms and patterns coexisted, together with the
traditional ones indicating the double character of Thessaloniki at
the time -- still Oriental and yet starting to look European,
traditional, provincial, and recently cosmopolitan.

First Transformations towards the Modern City - Remarks

We can observe the first steps of radical transformations in
city form which had not yet come to full fruition. The city expanded
but still the basic concentration of population and economic activi-
ties was confined to the traditional core. As new building types
and architectural forms appeared, the city was quickly rebuilt and
whole areas changed shape. Although the transformation of the
built shells of the city was spectacular due to the numerous
building projects, the total city form and socio-spatial relations
were changing very slowly. The existing built form pattern, which
represented the old social, economic and cultural order showed a
great persistence and was standing as an obstacle to the development
of new socio-economic phenomena.

The emergence of tendencies and phenomena characteristic of
the modern city can be noticed. The city, by becoming a center of
population and new types of economic activities, changed radically
in size and function and, consequently, its spatial scale and
pattern also changed. The inefficiency of the existing city form
to meet with new demands and its continuous overloading cried for the
undertaking of action which was expressed in two directions.

The city expansion first started with the emigration from the
old part of the dynamic new social group as well as new activities,
commercial storage and industry and the upper bourgeois class. These
had both ample reason and the practical means to take up abundant open space and organize it anew. Lower and middle income population groups were also soon driven out from the congested city but were located mostly at its fringes.

In parallel, the traditional policies and legal framework on the production of built space and population distribution were banned as outdated. The necessity for central action for the regulation and innovation of city form at its total scale was acknowledged by the political power which took appropriate measures in this direction. Large scale projects (public work, central services, redesign of streets and areas) were mostly reactions to the problematic situation inherited from the past. The authorities did not go so far as to undertake clearance of city parts but only took advantage after the physical destruction by fire.

We saw that the basic common practice in both the cases of reorganization of the old fabric and design of new areas was the introduction of a new street system. The spatial and functional qualities of the old and new pattern were significantly different and, mostly, implied different values and objectives in the treatment of city space. The old irregular and dense network of streets reinforced the division of the city by units—enclaves of neighborhoods in which spatial territory defined the community as well as its operation. The new street system, on the other hand, had as its objective a rational resolution of functional issues such as high densities and efficient transportation, as well as the introduction of a unifying, neutral and open city form pattern. The interventions were concentrated on built form, with organizations of social groups and economic activities expected to develop and be self-regulated internally. Indeed, this clearly took place following the implicit formal hierarchy since high income residents and retail consumers were attracted along the major streets which defined the new socio-spatial aggregations.

The total of public works on streets in the city of Thessaloniki reorganized the grid in both its horizontal and vertical directions with the opening of the four main historical and two new axis.
(Egnatia, Agiou Dimitriou, Venizelou, Agias Sophias, Vasileos Constantinou and Vasilissis Sophias). Two of them, Egnatia and Vasileos Constantinou, would acquire particular importance as the physical axis of development of the city's expansion. In conjunction with the horizontal cross-axis (Agiou Dimitriou, Egnatia and Vasileos Constantinou) they outlined the initial organization of the city in zones between the northern Walls and the sea. The demolition of the Walls came as a culmination of changes bringing a shift of interest from north to south in the city. The old upper part was not physically enclaved and left behind by change which was expressed dynamically in the lowest part of the city with its vital economic center and potential for expansion. The beginnings of the differentiation between the east and west of the new area also showed, with the concentration of transportation and industrial centers together with lower income groups to the west and attraction of upper and middle class residents to the east.

Finally during this period, with the introduction of technology and industrial production, with a practical and cultural continuous juxtaposition and conflict between the old and the new in society and in city form, the issues and values of progress and historical consciousness came into play. In practice, first priority was given to overcoming the problematic past and creation of potential for the future. The appreciation of historical heritage or aesthetic beauty primarily existed in the minds of some of the city's foreign visitors. They would study its archaeological remains, but also invest their capital while the authorities and residents went on demolishing the Walls, building new public centers and renovating the city. The creation, however, of a new city demanded a concrete philosophy and extensive central design to be applied, which, in fact, were soon brought together after the coming of the Hellenic State and a great physical destruction.
Notes

27. Samouilidou et al., 1983, p. 58.
33. Samouilidou et al., 1983, p. 60.
34. Samouilidou et al., 1983, pp. 60-61.
36. Samouilidou et al., 1983, p. 64.
40. Moskof, 1974; Traganou-Deliyanni, 1983.
43. Karadimou-Gerolimpou, "Modernization..."
44. Karadimou-Gerolimpou, "Modernization..."
45. Karadimou-Gerolimpou, "Modernization..."
48. Karadimou-Gerolimpou, "Modernization..."
49. Karadimou-Gerolimpou, "Modernization..."
50. Karadimou-Gerolimpou, "Modernization..."
51. Karadimou-Gerolimpou, "Modernization..."
52. Kolonas et al., 1980, pp. 98-100; Moutsopoulos, 1976.
53. Karadimou-Gerolimpou, "Modernization..."
54. Karadimou-Gerolimpou, "Modernization..."
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MODERN TIMES

THE NEW CITY PLAN AFTER THE 1917 FIRE

HISTORICAL CONTEXT 1912 - 1917

After the city's occupation by the Greek army and its incorporation into the Hellenic State, a rapid administrative reorganization was carried out and the life of the city continued without major problems. High class Turkish administrative officials left and the Greek culture became dominant. The Byzantine Churches returned to places of Christian worship and the city skyline was soon cleared of the symbolic intrusion of the minarets. An archaeological service for the recording and protection of the antiquities of Macedonia was also formed.

The city was continuously at the periphery of war. After the Balkan Wars, it was used from 1915 onwards as a rear center of supplies for the Entente army. In 1916, a political movement broke in Thessaloniki which established the liberal Venizelos in power. This was the setting when a most important event for the dramatic change of the city form took place.

The fire

On the 5th - 18th of August 1917, the biggest fire in the city's long history of similar disasters broke out on Olympiados Street in the northern part of the city. For several reasons (the density and construction materials of the buildings, the dry and windy weather, the lack of water supplies and fire brigades) the fire expanded very easily at a tremendous rate. It was put out three days later after it had destroyed an area of 128 Ha (approximately 1/3 of the old Walled city) (Fig. 37). 9,500 houses of 70,000 people, the biggest part of the commercial center, a large number of public buildings, offices and industrial plants were in ruins. The scale of the disaster was such that it urgently demanded action. In fact, a coincidence of critical factors occurred at one particular moment:

1) With the fire an order of physical space and a complex set of economic, social and cultural values invested in the medium of built
form were dissolved. The necessity of their replacement and the possibility of their redefinition were the immediately consequences. The first step and requisite of a planning intervention was automatically done.

2) The city was a recent acquisition of the Hellenic State and the moment was appropriate for changes which would speed up its incorporation into the developing economic system of Greek capitalism, as well as its cultural "Hellenization". A strong liberal Government expressing these ideals was then in power and had the authority and, above all, the political vision and will to actively undertake its demanded mediating role in the planning operation.

3) The ideologies and processes for a central regulation and modernization of city form were being established at the time. Planning, as a modern theoretical and professional specialization was already formalized and became a necessary technical component in the city's transformation.

The government moved fast and in the first two weeks after the fire, the basic decisions and measures for the immediate time, as well as for the future, were taken. The basic infrastructure and services of the city were soon put back in operation. The homeless victims of the fire were housed in temporary settlements outside the Walls. Proposals for moving the population to other areas of Greece were not followed. At the same time, construction or repair activities were totally forbidden in the "burned area". The city would be designed anew according to a new plan. The necessary legal measures for the effectiveness of the decisions were taken.

At the same time the three basic parts of the planning operation were also designed. In nine months their work was completed with remarkable speed and efficiency, given the complexity and scale of problems which had to be met. The tasks were divided among groups:

1) A detailed surveying of the destroyed area was done by a government appointed service directed by Professor D. Lambadarios. The plan of the old city, as well as a new record of estates was made. At a second stage the money value of lots and buildings before
the fire were estimated. The work was successfully carried out despite the many problems and obstacles (loss of estate titles, destruction of the press and mass-media, difficulties of communication in multiple languages among the ethnic communities, deliberate boycotting on the part of the owners.)

2) A "Committee for the Plan of Thessaloniki" was appointed. The common practice of an international competition was avoided so the government would not lose time and would have full control of the operation. The members were: The French civil engineer J. Pleyber and the architect-archeologist H. Hebrard; the Greek architects A. Zahos and K. Kitsikis and Professor A. Ginis, civil engineer; the city's Mayor K. Aggelakis; and the established English landscape architect Thomas Mawson who had worked before with the Greek authorities. The latter arrived four months later and played a consultant's role. French architects and engineers who were in the area doing their service in the Armee de l' Orient also joined at several stages of the design. The committee worked consistently and had its preliminary proposal ready in June 1917.

3) The necessary administrative and legal framework for the regulation of the preparatory stages and the implementation of the new plan was set up by the government under the supervision of A. Dimitrakopoulos.

It has been generally acknowledged that two important personalities with their clear ideas and great energy were the driving forces for the successful fulfillment of the planning operation.

Ernest Hebrard is the person to whom the plan of modern Thessaloniki is attributed. Hebrard was an architect, archaeologist and planner with a Beaux-Arts and Grand Prix de Rome background. He was involved with an active group of French architects (Prost, Garnier, Jaussely et.al.) who worked for the establishment of the planning profession to deal with the complex problems of better living conditions in cities and who believed in its potential as a factor of social progress in the underdeveloped countries of the world. Hebrard had prior experience from participating in the
design of new plans for French Colonial towns and had worked, in the Beaux-Arts tradition, on an ideal detailed project for a World Center of Communication for 1,000,000 people. During his military service, he was head of the archaeological section of the Armee de l'Orient. He had a good knowledge of the city and personally studied and made restoration proposals for some of its important Roman and Byzantine monuments. It is easy to understand why he came to play the leading role in the design committee.6

Alexandros Papanastasiou, Minister of Transportation and Public Works, moved the whole political and administrative operation of the plan with Venizelos' support. While Hebrard was the carrier of advanced, new ideas on city design, Papanastasiou expressed the liberal social and political spirit of his times. In the city's renewal, apart from the issue of its quick and efficient incorporation into the system of capitalist production then developing in Greece, he saw opportunities for the reinforcement of communal good against private interests with the role of the state as an intermediate regulatory power becoming more important. Papanastasiou actively promoted these ideas in the process of the plan's preparation and first gave them a institutionalized expression in the legal framework of implementation.7

There are several elements of importance that should be noted herewith: Not only did strong personalities appear at the right moment to effectively carry out a difficult task, but it is the coincidence of ideas joining between the politician and the planner, the social-institutional and the design actors in the planning operation, who had mature, compatible and complementary visions of the city and its transformation. This can explain the energy and determination in their work, as well as the speed and clarity with which the final proposal was formulated.

Description of Hebrard's Original Proposal

The plan covered an area of 2,400 Ha (8 times the old historic center). It was a complete proposal for the rebuilding of the city as well as for its immediate and future expansion until the population rose from 170,000 to 350,000 people.8 (Fig.40,41).


The basic conceptual-theoretical and formal-architectural components of the plan can be summarized in:

1) A total proposal for the city form and the technical social division-specialization of areas.

The city was conceived and designed as a whole as far as its functions and forms were concerned. It was given a clearly monocentric solution but the plan provided for future extensions. The proposal kept as its base the tendencies which were already active in the city. It organized them rationally and systematically and simultaneously introduced significant new elements.

The underlying organizing principles of the design were the social and functional specialization of city areas. General zones of basic types of activities were defined and further specifications were imposed within them. Zoning legislation, however, was not introduced directly. Specific locations and architectural proposals were made only for important public and administrative buildings in the burned zone. The control of functions and social structure was implicitly exercised with measures such as the introduced type of street network and building blocks, the size of lots and the allowed percentage of their exploitation, the building system and the estimated land values.

Particular directions of development were given to the city areas (Fig. 40). The transportation centers (harbor, railway and bus stations), the heavy industry, the wholesale commerce and the warehouses were concentrated at the southern part of the city's western extension. The Chamber of Commerce and the Stockmarket were also located in this area. Working class suburbs were proposed in the northern section. Some already existed and more would be built in the future. However, the proposed model of "Garden City" was never followed.

The eastern extension of the city was basically given to residential and recreational activities. Along Vasilissis Olgas Avenue, detached houses with low density were maintained. Middle class suburbs were spread along vertical axis to the north. Community facilities (schools, cultural and athletic centers, parks, etc.) were provided.
Between the old city and the eastern expansion a big green zone intervened (where the cemeteries and military barracks of the old city stood.) The university and the International Fair would be located there in the future. At the southern end by the waterfront a recreational park and a cultural complex were designed.

The new plan, by endowing the city form with a new scale and direction for expansion, allowed the transformation of the old city into what became the city center. Its functions, arranged in a new geometrically aligned pattern, were: retail and services (bazaars and shops, banks and offices), public administration (headquarters of services), recreation (hotels, cafes and restaurants) and housing.

Hebrard did not introduce radical innovations with his plan but respected and followed the axis, locations and tendencies which had been historically established in the city. He enriched them, however, according to the new needs and organized them with clarity in the new scale of the modern city. His realistic and efficient proposal was justified in time and use as the city continues to develop along the same lines to this day.

2) The street design and building layout

Hebrard's plan for the old city was based on the use of a rectangular grid with a combination of radiocentric design and the introduction of diagonals. (Fig. 41). Geometry was not rigid, imperfections and distortions were more the rule than the exception. The system kept the historic orientation parallel to the sea-front line and diagonally to the points of the horizon. At a first look, it seemed as if the historical Hellenistic grid reappeared. Indeed, the important historical axis formed the support system of the pattern but the whole was, none-the-less, original and introduced radical new elements and divisions.

The historical main streets parallel to the sea (Egnatia, Agiou Dimitriou, Vasileos Constantinou, Mitropoleos) were kept but designed with a new width. New ones were added (Tsimiski, Ermou). All of them intended to serve purposes of quicker flow-through. Egnati was designed with a central alley lined with trees. Vasileos
Constantinou's proposal included a lower pedestrian level along the water edge.

These long parallel streets were crossed by another system, perpendicular to them and to the sea line. Venizelou and Agias Sophias were planned as commercial streets with enlarged width. Original avenues in this direction were Dimitriou Gounari (from the Rotonda to the sea) and Aristotelous (from the Church of Agis Dimitrios to the sea). These were given grand dimensions and connected squares as well as old and new city monuments. These introduced a strong cross-axis to the historical system parallel to Egnatia.

Finally a system of diagonals was introduced to the rectangular grid. They took advantage of the ground slopes and allowed quick transportation among city parks. Monuments were put as reference points at their design centers. At the eastern and western ends of the old city on Egnatia Street (at Galerius' Arch"Camara" and the old Golden Cate - "Vardari") elliptical radiating transportation knots were formed.

The introduction of these three street systems endowed the city plan with a formal and functional structure. Within the basic support axis, the plan was further divided in building blocks. It totally reformed the situation existing before the fire. The reconstruction of the antique pattern was not a concern either.

3) The attitude towards the historical past in the design.

A conscious, specific conception of the historical past characterized the new city plan, as has already been explained in the description of street design. By that time, the historical past was seen through the filters of cultural ideology in general and of history of art and architecture in particular. This meant an understanding of and division by periods (Antique, Byzantine and Ottoman) not only as conceptual categories but with corresponding evaluations as well. A priority in prestige was given first to Antiquity, then to the Byzantine, and last to the recent Ottoman period. These priorities coincided both for the cultures of the official Greek State and Western European architecture at the turn of our century.
We can sumise that from the very start the view and treatment of the historical past was culturally defined and, therefore, biased and ultimately eclectic.

For the designer, two important historical elements were found in the city form: the antique hellenistic plan, and the monuments, major examples of institutional architectural constructions which survived in time, and were now introduced as design concepts and given cultural value. From the recent past of the city only a few important monuments and city parts were kept, namely, the markets (Bedesteni, Kapani, Vlali and the bazaar type) and the upper city area which was not destroyed by fire. This was deliberately preserved as a representative piece of the old city form. However, interventions for the regulation of the street system were applied even in this case. The general attitude towards the past in the design was the incorporation of its elements in the new plan according to its own logic and principles and with the objective of creating interesting new formal compositions.

We have already discussed how in the new plan the basis of the historic street pattern was kept and reorganized in a new whole. The monuments which survived from the fire, mostly churches of solid brick construction, were the only old buildings kept in the new design of the burned area. Restoration work was undertaken when necessary. They were treated according to a set of principles of architectural composition:
   a) They were projected as important elements per se. They were cleared from their surrounding constructions and became free-standing objects.
   b) They were used as points of reference in the design. They became centers for geometrical alignments, defined axis and formed the termination points of visual perspectives.
   c) An effort was made for creation of complexes, connected with promenades in open spaces and gardens. In other cases a background of greenery and corresponding styles for the neighboring facades were proposed.
   d) Special appropriate solutions were sought for each case. Some of
them deserve discussion.

The Galerius' Complex was given particular attention. During his military service, Hebrard had done archaeological research which proved the relation between the Rotonda and the Triumphal Arch and supported the hypothesis that they were parts of a larger architectural complex. Typically in his new design, Hebrard was inspired freely by the fragments of the antique composition without concerns for a faithful reconstruction. In his solution the Rotonta was located at the center of a cyclical plaza from which streets radiated. The Triumphal Arch was removed from the side of Egnatia Street and was, in this way, deprived of its original practical and symbolical function. South to Egnatia, a new open space was designed in the estimated shape and size of 50 x 300 meters of the Hippidrome - the "Hippodrome Square." To its west, a space was reserved for a public market on the spot where, later on, the foundations of the Palace and the Octagone were excavated. Hebrard's archaeological knowledge and interest endowed the plan with an element which would be later considered one of its major successes.

The big Byzantine monuments of Acheiropeitos and Agia Sophia were treated in a different way. The solution paid attention to the background so as to promote the delicate architectural envelope of the churches. Green spaces with high trees in the periphery of the buildings, reconstruction of the destroyed parts of the early Christian complexes and the Neo-Byzantine facades for the neighboring new constructions were proposed. (Fig.44,45).

4) The design principles of the new plan and its architectural proposals.

Basic design objectives were, as we saw, the organization of functions in the city and the rational, geometric layout of the street network and the building blocks. At the same time, the city plan worked out by Hebrard was a formal architectural composition based on classical principles of architectural design.

The form had a flexible geometric alignment produced on the drawing board. A centrality was clearly imposed on the whole plan by
the two vertical axis of Egnatia and Aristotelous, while the framing of the new city center was given by the two radiating knots at the old ends of Egnatia. An absolute symmetry, however, was not pursued. The dominant position of historical as well as new monuments further characterized and structured the architecture of the city.

We have already mentioned the important role of the historical elements in the design. Along similar principles, the institutional-administrative functions of the city were organized centrally in an elaborate and grandiose architectural solution. A monumental avenue with a sequence of public spaces and open buildings was introduced as the civic center of the modern city.

The composition was differentiated in zones, an administrative zone located to the north and a recreational one to the south of Egnatia. Aristotelous Avenue terminated with a Triumphal Arch in front of the Basilica of Agios Dimitrios (which, seriously damaged by the fire, was proposed for rebuilding). The northern Plaza was formed by a symmetrical placement along its axis of the Courthouse and the City Hall in free-standing blocks and the administrative office buildings with semi-cyclical facades. (Fig. 44) This space was designed as a civic square for public events and ceremonies. Two small symmetrical parks, just above Egnative Street, surrounded the free-standing monuments of Panagia ton Chalkeon and Bey Hamami. A second Piazetta was proposed toward the Waterfront where commercial and recreational activities would be concentrated, shops, hotels, restaurants and cafes. It had a semi-cyclical northern edge, a width of 100 meters and an open view to the sea, the sunset, and Mt. Olympos, the "Residence of Ancient Gods". The architectural proposal for the avenue included arcades and buildings of uniform Neo-Byzantine facades. (Fig. 45).

The second monumental axis introduced was Dimitriou Gounari. It was formed by a sequence of historical monuments and open spaces (Rotanda, Triumphal Arch, Market) and culminated also with a view towards the sea.

These complexes were only partially realized for several
reasons: the revision of the plan which reduced the area of public-open spaces in favor of private building blocks; the cost of the execution of the projects; and the finding of the archaeological ruins of the Forum and the Galerian Complex. Because of evacuation procedures two huge holes remain in the center of the city today.

The revision of the plan denied most of the aesthetic qualities of the first proposal and the designer's intention for the creation of a new monumental city center was left incomplete. However, there was some compensation with the reappearance of the historical centers on the same locations which, certainly not by coincidence, Hebrard had reserved for public use in the city.

As far as architectural-building types were concerned, Hebrard's plan went a long way to determine building systems (continuous-closed, discontinuous-open and mixed) for the different sectors to regulate the alignment of building blocks, the maximum height of buildings in relation to street width and the percentage of built to unbuilt area in the lots. Proposals for residential blocks, transferring ideas from legislative frameworks of European countries, were studied and published by members of the committee. (Fig. 46) Hebrard also proposed uniform facades for the buildings surrounding historical as well as new monuments. Reinforced concrete constructions, pioneering for the time, were introduced, as well as an eclectic Neo-Byzantine style with overtones of classical rigidity and arabic decorative motifs rather than qualities close to Byzantine architecture.

The Implementation Proposal

The realization of the new plan could be made possible only by means of a legal framework appropriate for the occasion. The government undertook its writing simultaneously with the committee's design work.

Important political decisions directed the framework. A basic assumption was that the rebuilding of the burned area according to modern standards would raise land values. The resulting profit, however, should not go only to the old owners but part of it at least
should be appropriated by the community. The rise in values should be controlled, so that speculation tendencies would not develop in the free market.

On the other hand, the new plan would be impossible if it was bound to the previous ownership division. All the owners, none the less, should be compensated for the value of their property. This would mean that 100 million drachmas of that time would be necessary for the expropriation of lots and 16 million more for the clearance of the burned area from the standing buildings. This was an economic load that the Greek State could not possibly undertake at a time when it had to deal with the consequences of the Greek-Turkish War and the first immigrants had started to arrive. Individual negotiations with the 4,100 owners would be also problematic and time consuming.

The idea, therefore, was conceived for a communal treatment of the old owners through the creation of agency, the "Real Estate Group", in which they all were automatically members.

A process with several steps had to be followed. The money value of the old estates should be estimated and confirmed by the court. The owners would be given the equivalent of shares of the "Real Estate Group". These would not be allowed to circulate in the free market to avoid speculation and the concentration of land in a few hands. In the new plan, the building blocks of the "Burned Area", owned by the "Real Estate Group", were divided into new lots. The land values would be, in general, much higher due to the qualities of the new plan. Minimum starting values for the new lots were determined, estimated according to the needs of the economic efficiency of the new plan (the total of the new value should cover that of the old lots and existing buildings, the cost of the design and implementation, the partial cost of the new infrastructure and public works, the losses from the reduction of private land from 80% to 50% as well as the betterment from the new plan). In this way the total of the original value was estimated in 145 millions, which yielded an average land value of 225 dr/m² while the old one was 98 dr/m². The new lots were categorized according to the advantage of their location, but varied limitations were imposed on any increase in their original price. The lots would
be sold by public auction. The members of the "Real Estate Group" could pay with their shares and would be preferred in case of equal offers. Reselling would be forbidden for 3 years and incentives would be given for the undertaking of construction. In the final clearance for the "Real Estate Group" in case of losses, the value of the shares would be proportionately decreased; in case of profits, these would be divided in half between the "Real Estate Group" and the Municipality. The latter would also tax the profits of future sales and use the funds for the construction and operation of the public spaces of the new plan.

This framework was designed to combine procedures and measures which would ensure the economic feasibility and the social policy of the new plan. It set up free-market procedures with the decisive intervention and control by the state.

The Realization of the Plan

As was expected, the plan and its implementation framework created a strong reaction, underwent revisions and was finally realized in a different version. The reaction came from all of the proprietors who felt that they were unfairly affected by the changes: The Jewish community representing the largest number of these proprietors, particularly opposed the whole scheme. They condemned the new plan as an effort on the part of the Greek Government to change the city's multinational composition, drive away the Jew population and reinforce the Greek community. Although Venizelos' Government received many pressures from the interior and abroad, all central processes of the plan were carried out very rapidly. Its application, however, was boycotted and delayed until 1920. The conflict was politicized and in the 1920 elections, Thessaloniki supported the Conservatives who came into power. In a short time, the basic demands of the "Real Estate Group" were accepted.

Hebrard, none the less, was commissioned to make the necessary changes in the plan. Despite them all, he managed to preserve its basic ideas and he personally felt that his ideas were satisfactorily expressed in the revised version. (Fig. 42). After an agreement with the
owners, public space was reduced from 52% to 42% and blocks were further subdivided creating 2,600 instead of the original 1,300 lots. (Fig. 43) The western part of the city which was not destroyed by the fire was not included in the processes of the burned zone. The old proprietors were given advantages for reappropriation of lots and there were no restrictions imposed on the construction. Finally, perhaps, the major achievement was that, even under the new conditions, speculation was ultimately prevented.

From 1921 to 1926 the first phase of the auctions and construction was completed. By 1928 almost 2/3 of the rebuilding had been completed.

Formation of the Modern City - Remarks

The fire and the new city plan, although an incident in the evolution of city form, have been analysed extensively because they are considered particularly important in its history of transformations. The city underwent its most important central design since its foundation. This operation came to regulate its enlarged form and enriched functions as a center of population aggregation and economic activities in the system of capitalist production. The 1917 plan, covering five times the traditional city area, set the functional and formal framework upon which the city is developing until the present.

The incident of the fire and the new design shows both a continuity and a break in the process of transformation towards the modern city. The city, as we saw, was already undergoing modernization, expressed as assumption of new functions and renovation of its formal structure. A modern city form would have emerged even with the slow pace and the moderate formal expression of an accumulative process of rebuilding. The fire, on the other hand, would not have been a factor initiating change outside its historical context. During the previous centuries, the city was burned and rebuilt several times, but then the previous state of affaires and patterns of built form were practically reproduced. In the end of the 19th century, fires were for the first time conceived and used as opportunities for change to be applied. This was also the case in the beginning of the 20th century but the 1890
and the 1917 designs had qualitative differences. The former was primarily a regulatory act dealing with a problematic past and its tools confined to the use of a geometric pattern which implicitly introduced new relations in the city. The 1917 design was to be a great extent free from restrictions imposed by an existing situation and its task was the shaping of the built environment for the present as well as for the future. It was a complete proposal for the city as a whole, supported by a clear vision on its economic, social and cultural functions.

The fire accelerated the passing to modes for the production and use of urban space typical of the socio-economic framework of capitalism. The creation of the 'Real Estate Group' marked the neutralization of relations between residents and their places of living and the consideration of real estate property in terms of market value, like any other economic good. Population concentrations in city areas would gradually develop on the basis of income groups, while community relations in spatial territories would continuously dissolve.

The enlightened political power which initiated and regulated the planning operation, set clearly the objectives of the whole scheme: the socio-economic transformation of the city with a parallel creation of an appropriate environmental setting for its operation. Policies and processes were introduced with remarkable determination and efficiency. The new plan was evidently directed by political choices and at this level the conflicts and pressures were expressed and resolved finally only after the substitution of political groups. However, the planning processes had gone far enough for the design to be only modified and not cancelled. The rebuilding of the city fulfilled the original economic and social policy objectives and in this respect the plan should be considered a success.

The designer's participation in the planning process is indicative of both the potential and the limits of his role. Given the type of commission, he was called to express directions strongly determined by his patron in which he managed nonetheless to introduce actively his own ideas and proposal. His power and independence was immediately related and deriving from his professional tasks and tools. He was
the only one among the several actors capable of giving a total proposal for the city since all the other involved groups (State and propriators) could only express general objectives or particular pressure. Hebrard gave realistic and efficient solutions to the economic and functional issues but in the final shaping of ideas to forms he imposed principles and norms which he personally held for his art (such as centrality, monumentality, geometry, perspectives, diagonals, etc.). In the design stage, solutions were worked out with ideal standards which had to yield when conflicting with economic issues, betraying in this way the designer's intentions. Thessaloniki's realized plan easily attracts comments considering it as an aesthetic failure or a lost opportunity for the creation of a qualitative urban environment. These are only superficial and partial judgements which ignore or underestimate the plan's technical success in the organization of areas as well as the significant socio-economic transformations which were an essential component of the whole operation. The outcome of city form indicates the level to which financially and culturally the Greek society at that time could carry out and evaluate such a project. Finally, it was a skillful movement on the part of the designer the fact that he managed to maintain the central conceptions of his plan even after the revision imposed by the changes in the political and social framework.

In the compositional-aesthetic level, Hebrard felt more free to make personal proposals but as far as demands and tendencies were concerned, he was kept close to reality and his solutions therefore feasible and efficient. The new plan acquired many of its qualities in relation to the continuities or discontinuities which it introduced with the old city form. In the extensions it took advantage and reinforced the already developed tendencies. In the city center, it respected the major historic elements of the pattern, the street grid and the monuments, the active economic functions as well as memories. We should note here the lucky coincidence of the designer's archaeological knowledge and interest which had the important consequence of the reappearance of the civic centers of antiquity in the center of the modern city. In the city plan today these are again the only major open spaces in a densely built pattern. In this case, it is not the
persistence of form which has ensured the survival of these places but the intervention of cultural values and choices. Traces of forms unburied under the ground stand, in the end, for the absence of form in huge wholes opened up in the middle of the city. These excavations were, however, only later consequences of the plan. Hebrard himself, as we have already explained, chose a line in the treatment of the past which avoided contradiction, rejection or subordination to it and adopted a free, dynamic and imaginative new proposal imposing its own characteristics. Finally the plan, although outcome and expression of values and dynamics of the moment of its creation, it became the fixed setting for further rebuildings of the city. Being a concrete and extensive proposal, it was used in further steps of development as a solid regulatory base.
Notes

1. Papastathis 1978, pp. 143-148
5. Papastathis 1978, p. 150, Tsilalis 1975
7. Karadimou-Gerolimpou "Thessaloniki 1917..."
8. International Committee ...1918, Kalogirou "The rebuilding...", Karadimou-Gerolimpou "Thessaloniki 1917..."
9. Kitsikis 1919, Pleyber
10. Karadimou-Gerolimpou "Thessaloniki 1917...", Mawson 1921
12. Karadimou-Gerolimpou "Thessaloniki 1917..."
Fig. 37: Plan of the "Burned Zone " (Papastathis 1978)
Fig. 38: South and North Views of the "Burned Zone"
Fig. 39: City Plan before the fire and the new proposal (Mawson 1921)
Fig. 40: Hebrard's Plan of Thessaloniki (Triantafillidis 1966)
Fig. 41: Original proposal for the "Burned Zone" (Triantafillidis 1966)
Fig. 42: The revised plan of the "Burned Zone" (Voivonda et al. 1977)
Fig. 43: The final division in lots of the "Burned Zone" - The building systems (Triantafillidis 1966 and Kalogirou "The rebuilding...")
Fig. 44: Architectural Proposal for Acheiropoitos Church and the Aristotelous Piazza (Kalogirou "The rebuilding...")
Fig. 45: Architectural Proposal for Aristotelous Piazzetta (Kalogirou "The rebuilding...")
Fig. 46: Proposal for Residential Block Building (Kitsikis 1919)
THE 1917 plan marks an important threshold in Thessaloniki's development and is an appropriate point for us to close our extensive analysis on its city form. A full range of transformations and an important amount of information have already been covered and they provide with more than enough material for conclusions to be drawn. On the other hand, after 1920's, the city enters a distinct new cycle of development in the capitalist system of production and this would be a huge new topic to be opened here. An outline, nonetheless, of major changes in the city between 1920's and the recent past will be given, as an update of the images of its transformation.

The city, after its annexation to the Hellenic State, followed the later's economic and political history. We shall refer only to incidents significant to the city form. In 1922, as a consequence of the Greek-Turkish War, a population of 1,500,000 immigrants arrived in Greece from Turkish territories. A number of them came to Thessaloniki and created 75 settlements (most of them built by the inhabitants without plan). The settlements located at the city's periphery (Fig. 48) soon lost their rural character and were incorporated to the city as suburbs. In 1928 the city population reached 220,000 and Hebrard's plan had to be revised in order to include the enlarged city periphery. The coming of immigrants accelerated the social division of residential areas in the city. The upper middle bourgeois class concentrated at the Center and along the Waterfront while the working class and proletariat groups were pushed towards the outer suburbs (Fig. 49). During this period the city's economy specialized in local industries and crafts which could find cheap labor among the newcomers. In the 1930's two important functions of the Modern City, the University and the International Fair (Fig. 49), were introduced. The city had a slow development until the 2nd W.W., reaching in 1940, the population of 280,000 people and extending in an area of 2,000 Ha (Fig. 49).

In 1951, after the War, the Civil War and the diminishing of the Jewish Community, Thessaloniki's population was 302,635 people. During the 1960's changes in the system of agricultural production
in Greece created large numbers of unemployed population in the countryside. Emigration extensively took place and Thessaloniki was, after Athens, the second major pole of attraction, basically for the population of Northern Greece. Between 1951, 1961 and 1971 the increase was 302,635, 380,648 and 557,370 people. Most of the newcomers were located at the outer western working class suburbs (Fig. 51 ). In economic production, local industries continued to predominate until 1960's, but after 1964, foreign capital investment brought large industrial complexes at the western part. The differentiation between the inactive northern and dynamic southern city areas was further established during this period (Fig. 49 ).

The urbanization of the 1960's was the next major stage of the city's expansion after the coming of immigrants. The city however, did not extend much beyond the 1940 limits (Fig. 49 50). Its peripheral areas were densified and, basically, it was rebuilt in height. The State did not introduce an effective policy for the housing problem which was resolved by the commercial and speculative standards of developers. People themselves also built their own illegal houses at the fringes of the city. After 1955, when a new law allowing maximum exploitation in height and area of urban real estate was introduced, the city was quickly rebuilt. The rebuilding started from the old center, the 'Burned Zone' and the lower eastern area which had upkept until then in its greater part, the pattern and constructions of late Ottoman times. In less than two decades, the area was totally rebuilt (with the exception of the Upper City area) without any measures for the regulation of problems of densification (street widths, parking and open spaces, environmental conditions). The city center took then the form which it keeps until the present. These facts in relation to the low qualities of commercial constructions resulted in the shift of high incomes towards the Waterfront line at first and remote new suburbs outside the city afterwards. From 1975 onwards, construction activities calmed down and advanced their quality, while the city assumed more smooth paces of development. Recently, important transportation and infrastructure works are undertaken in the city. In the total of the urban settlement, the historic
center and the suburban area are environments with different qualities and problems. A general regulatory tool, a master plan of the city, although in discussion since 1966, has not become a reality until recently.
Notes

General references for this chapter were:
1. Anastasiadis 1982
2. Andricopoulou-Kafkala et al. 1979
3. Dimitriadis, E.P. 1983
4. Kalogirou 1977
5. Tsoukalas 1974
Fig. 47: City expansions 11th - 20th century (Triantafillidis 1966)
Fig. 48: 1922 War Immigrants Settlements and House Type (Kalogirou 1977)
Fig. 49: Plan of Thessaloniki in the 1940's (Triantafillidis 1966)
Fig. 50: Plan of Thessaloniki in the 1960's (Triantafillidis 1966)
Fig. 51: Population Increase in the 1950's and 1960's (Kalogirou 1977)
Fig. 52: South and North city views in the 1960's
Fig. 53: City Center and Eastern expansion in 1960's
Fig. 54: White Tower area before and after 1960's
Fig. 55: Acheiropoiitos area before and after 1960's
Fig. 56: Egnatia Street and the Arch of Triumph before and after 1960's
Fig. 57: Vasilissis Sophias Avenue before and after 1960's
Fig. 58: The Waterfront - Vasilissis Constantinou Avenue before and after 1960's
CONCLUSIONS

The main part (and task) of the study has until this point been the systematic documentation and analysis of the development of the city form of Thessaloniki. We end up with a double benefit from this work. In the first place, a good knowledge of the city has been achieved followings its sequence of superimposed transformations. The latter were examined in their original context of creation as well as in the ways and degrees in which they further conditioned or were overcome by new realities. In parallel, due to the city's multiple stages of development, a rich selection of material well organized is available to work with. Although completed in a first stage, the work has a potential to be further proceeded in both the directions of the city's study as well as of a theoretical synthesis. In a first step, we shall try to reorganize here, in the light of the analysis input, the ideas and positions on the phenomena of city transformations which were generally set from the introduction.

In our study we had the opportunity to observe the constant process of change to which a city is susceptible in time as well as the establishment, at stages, of new sets of relations among forms, uses, values, meanings, etc., in urban space. Elements originally introduced in previous phases of development were also surviving and meaningfully incorporated in new contexts. It seems therefore that parallel themes of ongoing processes of change and expressions of permanency appear and dynamically compose city form through its transformations.

The expressions of changewhich from the beginning we were interested to observe and define are cycles of transformation. Our study leads us to some thoughts on certain basic components related to them.

The fluctuations of size of city form are the first direct indication of change, reflecting the degree of vitality of the socio-economic system. Stability implies a stagnation, while a positive increase in size implies an increase of population and introduction of new activities. In several occasions in our analysis (Roman Period, Early and Late Ottoman), we observed the tendency of dynamic new social groups and activities in a historical context to take over virgin land and organize it from the start according to their new needs and
original built form patterns. In size also, the crucial break between the precapitalist to the capitalist city is most evidently expressed. Two processes then take place. The city loses its territorial definition and differentiation from the countryside as the enclosed and protected vs. the open. The Walls lose their significance, are even removed and the city expands. At the same time, the equilibrium in the total system of urban and rural settlements changes. The city becomes center of population concentration and economic production. This changes drastically its total size as well as the scale and organization of internal relations in the city form. In Thessaloniki, the passing to the capitalist city was quick and most clear. It took place in a few decades in the turn of the 20th century and was completed by the 1917 new plan. The modern city's size and limits were stabilized in the 1920's and have not since then greatly changed until the present.

A further expression of transformation cycles is the reorganization of the city form by redefinition of the types, hierarchy, relations and spatial solutions of the basic categories of functions in the city: the economic, the public (institutional religious, political social) and the private. An implicit order is then established in the city regarding areas, points of reference, axis, etc., which is further completed and infilled with the introduction of building shells. The establishment of architectural types, composite functional, technological and aesthetic prototypes in the production of built space, marks a last stage towards the closing of a cycle of transformations. The building types together with the functional arrangement create the total built form pattern, the street network, the building blocks and the open spaces in the city. Most dramatic periods of transformations are the moments of passing of an old system of built form to a new one.

The differentiation between paces and modes of transformation is also useful to our point of view. Pace is used to indicate quantitative aspects of change, its time or scale components, while mode refers to the expression which tendencies take in particular forms and relations. Pace, indicating the very act of change, is directly
related with the types and vitality of economic development of the city, while the dominating social and cultural systems together with technological means are a most crucial determining factor for modes. These issues were continuously observed in Thessaloniki's analysis: industrial and commercial development have always been the driving forces to the city's flourishment, but its built form had taken most diverse shapes in different historical contexts.

Another view highlighting the city transformation phenomena is related to central design and accumulative building processes. The former creates new patterns while the latter demands an established common practice as the base for its operation. In the case of Thessaloniki, we saw that the city was centrally designed at two most crucial moments of its development, its initial foundation and during its passing to the modern city. Both central plannings and particularly their street pattern, proved to be most persisting in time and determining elements for the city form. During the other periods, the central authorities assumed in several ways central action in the city and every social order, without exception, introduced its own symbols - points of references, and through them, a functional and symbolic spatial order in the city. However, the ways of undertaking public works differed in several socio-political contexts (e.g., the Romans undertook extensive constructions and renovations in the city, while the Ottomans confined their role to strong control and imposition of restrictions). The gradual rebuilding, on the other hand, which produces to its greater scale the city form needs a set of regulatory-normative conventions, active in law and in practice, in order to operate. This process is more or less self-regulated and reproduced without major problems when a system of building production is stabilized, but becomes problematic when passings from one system to another take place (e.g., its cumulation of problems in the end of the 19th century during the passing from the Ottoman to the Modern City).

We have seen persistence and continuity expressed in various elements of the city form: the street patterns, the religious buildings the institutional center, the Market and economic activities' area.
Permanency in city form is motivated from two directions: the natural qualities of persistence of the built medium (as a spatial order and as a shell) as well as the tendency of transformations at the socio-economic framework to proceed with continuities along with breaks.

We can point out certain expressions - dominant types of permanency in built form having in mind, though that these will be usually found co-existing and interrelated in concrete examples of reality.

Permanency of built form can be seen deriving from:

- Location and the advantages of certain environmental conditions

In the case of Thessaloniki the natural entrances to the city, the Harbor and, later, the Railway Station, maintained in time their original successful location. Attracted towards them, the economic activities area also occupied its basic territory with remarkable stability. When functions of new types and scale were introduced by industrial development, the new concentrations developed again around the existing nucleus but demanded the expansion and rearrangement of the total pattern. As far as the residential areas are concerned, on the contrary, from Ottoman times onwards, a tendency of expansion towards open land for the provision of comfortable environmental conditions (of changing standards) appeared. In this way new areas - extensions of the city were constantly accumulating.

- Categories of land use and ownership

The appearance of buildings and uses (such as religious or government centers, markets or residential units) continuously on the same spots in the city reflects an underlying continuity in the categories of their functions and property status (concerning the Private, the Public, the Religious, etc.). Provided that basic economic divisions are maintained, the interchange of owners or even of total political systems, can be expressed as appropriation of the city fabric with minor transformations only (e.g., the case of the passing of the Byzantine city to the Ottomans). Dramatic changes, however, in the scale and organization of city form show up when new economic systems are introduced. In this case, even when elements of city form maintain their old uses and locations, they inevitably acquire a new significance in
the hierarchies and relations of a new reality (e.g., the Churches in the Byzantine and in the Modern City.

- Continuity and interchange of functions

The built forms which survived in the city over time are those which have been continuously used according to their original or new purposes in successive historical contexts. The existence of (a) function is indispensable requisite for the buildings' creation and duration in time but formal qualities, such as stability of construction and flexible spatial area, have their own particular weight too. Forms, once built, become cultural artifacts, loaded and used with changing values and content, and the greater their potential to adopt to transformations, the greater their possibilities to survive (e.g., the Rotonda vs. the Hippodrome of the Galerian Complex).

- Cultural conventions and historical memory

The elements which survive as complete entities of the past in city form, the monuments, are as a rule pieces of institutional architecture typical of the functions and values of the societies which created them. Monuments have the time duration quality built in them as they are grandiose constructions made to last and to commemorate. Their power as markers of continuity in new urban contexts lays in their being exceptional physical presences in the city fabric and at the same time carriers of collective values and memories. Being symbols of their societies, they mark the history of confrontation of successive societies in city form, expressed as instances of appropriations, juxtapositions, innovations or losses. Continuity in use and form is not a rare case (e.g., the Churches of Thessaloniki as places of worship - with an interval of their conversion to another religion). Monuments, however, and historical past are appreciated and treated in different ways in changing historical contexts, as our analysis has consistently showed. At every instance the values and modes of operation acquire particular definitions and institutionalized expressions.

The remarks of this final part are only a first expression of ideas around the central themes of change and permanency in city
transformations. Further work should be done for elaborating them individually as well as organizing them in a framework which would allow an exploration on their dialectic relations. Here again the existing information can be used as base for drawing ideas or for illustrating thoughts.

The ultimate objective of the study would be an understanding of cities, from the proposed view of their transformations, in the present – and for the future. In such an approach particular attention would be paid to the dynamics of historical context, the particular characteristics and tendencies of a built environment and the potential left to design in entering and stimulating the process of transformations. Thessaloniki could further be a case study and then the last stage of analysis of the modern city development should be extensively carried out. Presently the city poses its own interesting and difficult problems at a phase of low paces of economic development and with a cycle in its built form production closed and stabilized. The research should lead to conclusions about the type and scale, processes and design tools for projects important to the city's vitalization today.
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