Galatista

The built-up environment of a Greek vernacular village

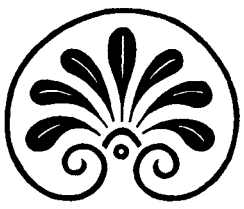
by Bente Thomsen-Tsialis

Galatista

The built-up environment of a Greek vernacular village

Past
Present
Future?

by
Bente Thomsen-Tsialis



On-line publications of the Danish Institute at Athens
Volume 1

Study the past when you plan for the future.
- Confucius

© Bente Thomsen-Tsialis &
The Danish Institute at Athens, Athens 2009

On-line publications of the Danish Institute at Athens
Volume I

General Editor: Erik Hallager
Editor: Anastasia Caramanis
Graphic design: Lone Simonsen & Erik Hallager

The publication was sponsored by:
The Danish Institute at Athens

ISBN: 978-87-7288-725-8

Cover illustration, photos, maps and drawings by the author

Editorial foreword

In 1987 Bente Thomsen-Tsialis submitted her dissertation Galatista. The built-up environment of a Greek vernacular village. Past - Present - Future? in partial fulfilment of the requirements for the degree of Ph.D. in Architecture in the School of Architecture of the Royal Danish Academy of Fine Arts, Copenhagen. It is a unique study of the development of a Greek village situated in a fertile landscape in northern Greece along an old caravan road heading eastwards from Thessaloniki to the monasteries of Mount Athos and further on. The main subject of the thesis is the buildings, but in order to understand their forms and development it was also necessary to make a thorough study of the geographical setting, the economy based on agriculture, the social organisation and the cultural traditions, some of which have their roots in Greek antiquity.

It had long been a wish of both the author and her advisors that this study should be made available to the scholarly world and other interested parties, since it is an important witness to a Greek cultural heritage which is fast disappearing and because it could be of great value for similar villages in the developing world that could use the "preindustrial" know-how so successfully applied in Galatista. The Danish Institute at Athens is therefore happy that the publication will now be available – not as a printed book – but as the first on-line publication of the Institute. Text and illustrations are – with a very few editorial changes – as the original.

The original dissertation was type-written and laid out by the author, and the editors have decided to follow the original as closely as possible for which reason not all editorial guidelines of the Institute have been followed. The texts were scanned and we used the "house-font" (Bembo) of the Institute in this publication in a size equivalent to the original. All photographs were scanned from the negatives, while all the drawings and plans done by the author were scanned in some cases from originals, while several where the author had added colours by hand were scanned from the worked Xerox copies as were most tables.

It is the hope of the Danish Institute at Athens that this first on-line publication may fulfil its purpose and make available to the scholarly world an example of Danish research on an aspect of Greek civilization.

Athens, August 2007
Erik Hallager

Contents

MAPS

The indication of a house consists first of a letter indicating the neighbourhood. The next letter indicates the quarter of the neighbourhood and the number after the two letters indicates the house in the quarter.
If the house is not detached:
e refers to the eastern part of the house,
w refers to the western part of the house,
m refers to the middle part of the house,
me refers to the middle part towards the east etc.

North is towards to the top of the page when no other direction is indicated.

Both maps are at the back of the book.

Fig. 1. Map of Greece. ca. 1:4,900,000,

Introduction

When first I travelled in Greece in 1961 the industrial revolution had hardly started to seriously set in. The villages were as yet closed units gathered around water fountains, and buildings outside their confines a rarity. The villages had morphologic unity and their presence was a point of interest and enrichment in landscapes of unique beauty and magnificence. The Danish landscape, though gentle and idyllic compared to the Greek, must once have possessed that same quality, but some two hundred years ago before the enclosure movement and long ahead of the industrial revolution that finally put an end to whatever harmonious correlation had been left.

Settling down permanently in Greece from 1963 I became a firsthand witness to the impact of industrialization on the built-up environment of vernacular villages in Greece. Any traditional values, that may have resulted from centuries of accumulated experience on the site, could now be wiped out ruthlessly in no time by modern technological means and replaced by something that was rarely a match for what had been destroyed when it came to adaption to the morphologic unity of the surrounding houses, the climate of the house and ecological adjustment to the site. This development was of course not restricted to Greece, but something that also took place, I believe, in any other industrializing country, including Denmark. However, in many of these countries development started so long ago that omnipotent machines of such destructive power as today's had not yet appeared, and so the result did not appear so fast and so shockingly: there was time to consider and apprehend what was happening and to halt unwanted trends.

It was not until 1977 that about 420 villages were proclaimed dhiatiritea - "preservable" - in order to save what was left of this important national inheritance. One should not forget that the major part of the Greek population had been living in villages during the 500 years of Turkish occupation and right up to recent times. Demolishing houses was now prohibited in these villages and certain framework rules, far from sufficient, were set up to secure some morphologic unity when building new houses. Thus houses in Galatista could now only have two storeys towards the street; they should have hipped roofs with Spanish tiles, and doors, windows and shutters of wood.

It was in order to study what forces could possibly have contributed to the design in town plan and house type, that this research was first begun, and to investigate if there were nothing but mere superficial qualities, like roof type and applied building materials, worth adhering to when designing in future.

When choosing a village that had been listed for conservation, various considerations were taken into account: it had first of all to be a live village, one that had not been deserted by emigration like so many villages in remote parts of Greece. In other words, it had to be a village with a future, because in such a village there would be building activity and consequently, real preservation issues. Furthermore it had to be a village with a past going back as far as possible, so that some planning and building traditions had had time to develop, and to arrive at some settled solutions that might also be relevant when designing in future.

The choice fell on Galatista, which is situated ca. 40 km to the east of Salonica, has a large population of more than 2000 inhabitants and buildings dating back to the Middle Ages.

The first thing required was a detailed map, not only in order to try to understand how the plan had come about, but also to mark each house clearly, so reference to the houses would be simple. The problem was, however, that there was no map to be had of any Greek village from before 1923, apart from some very insufficient maps prepared from aerial views by the Greek National Statistic Service. So there was nothing else to do than to use this map as a basis for creating a bigger and more detailed map, where all important details could be distinguished. The basic map in scale l:4780 was enlarged to l:l000, and the various parts were surveyed in stages by pacing out and using a compass, while levelling, so important in order to understand the interrelation between topography and planning principles, was done with a pocket level.

Simultaneously with the surveying, which took place from 1978 to 1982, I started to read about whatever might have had influence on house form and planning, thus following a course that had already been advised in 1969 by Amos Rapoport in his House, Form and

Culture. Subjects like cultural geography, historical evidence, traditional agricultural economy, ethnology and cultural anthropologic analyses of Greek villages offered most useful reading, and any information of relevance to the subject has been included in the first four passages as a kind of short exordium to the essential part of the first chapter, namely those passages concerning the village plan and the evolution of the pastas house in Galatista. In doing so, I was well aware that I was venturing into fields in which I have had no training, but I still believe that some information, however lacking in scientific method, serves the main part concerning architecture better than none.

When it comes to books on Greek preindustrial architecture and that of neighbouring countries with a similar style of building – I am referring to the other Balkan countries: Albania, Yugoslavia, Bulgaria and not least Turkey – it is most fortunate that many books have already been published on the topic, so it has been possible to compare results from Galatista with those from other areas.

Many books on Greek preindustrial villages and towns were important sources of information, but in most of them importance was attached mainly to the houses of the wealthy, who had the means to build mansions of great architectural worth, while the houses of the less affluent were usually omitted in silence, with little attention paid to their possible interrelationship with the mansions (Moutsopoulos 1967, 1971, Stylianou 1982). In a book on vernacular houses in Chalkidiki (Moutsopoulos 1979) importance has been attached mainly to variations in plan, and since only a few houses are shown in section, it is often hard to grasp the construction principle. The same applies to the well-known diagrams of the evolution of the Greek "longhouse" set up by George Megas (Megas 1949). However, in D.A. Philippides's thesis on Elymbos on Karpathos (University of Michigan, 1973) a more universal approach has been taken to address all aspects of a Greek rural spatial system.

After the map had finally been worked out in 1982 the question arose: was there any special house type and if so, was there any interrelationship between house type and planning? In order to find some answer I started to survey the first houses typologically in order to understand their structure and what factors could possibly have contributed to their form and dimensions. Thanks to the invaluable information conferred on me by the late craftsman, Tasos Mastrokostas, who died recently at the age of 88 years, I became acquainted with old ways of building and important dates concerning the erection of some of the houses and the periods at which new building materials and methods were first applied.

Studying other empty houses it soon became apparent that the houses must have undergone some very dynamic development, beginning more than a hundred years ago, and that the nucleus house type had been a "longhouse" the so-called pastas house, which was also known in antiquity. In order to make an account of the development, no less than seven houses had to be surveyed typologically; not only did the results correspond to similar development in other parts of Greece, as shown by George Megas, it was also possible to demonstrate what forces underlay the change and how it was brought about constructively.

Comparing the village plan with the house type it was clear that the first was also designed to accommodate the nucleus house type by laying streets out in level and, as it will be demonstrated, a whole number of precautions were taken in order to utilize any advantage the site had to offer.

The most peculiar aspect is perhaps the striking affinity in many ways to ancient Olynthos, some twenty kilometres to the south of Galatista, which was planned by Hippodamos. Like Olynthos, Galatista is also a synoecism (syn = together, oecism = gathering of houses) consisting of several villages that in the past were moved to the nucleus settlement of Galatista for reason of defence. The planning principle of these new neighbourhoods is in some places similar to that of Olynthos, and so is the house type, as will be shown.

That deliberate planning was widely adopted in a country where devastating wars, earthquakes, landslides and also lack of water have often been the cause of moving whole villages to more favourable sites, is feasible, and also that a kind of planning tradition had come about, as appears from a quotation from an Epirotic chronicle written in 1847. It deals with the possibility of moving a village in Epirus to a more advantageous site and how it ought to be planned in order to prosper; the most extraordinary thing is that Galatista was also planned on the same basic principles, as will be demonstrated.

The design principles of Galatista that have been explored, were attained through long experience on the site, and they are presented and discussed in the first chapter. The question is now whether any of these principles may still be relevant when designing in the future. To that end the impact of industrialization and modern technology on the built-up environment has also been studied and the results are given and discussed in the second chapter. To me there can be no doubt that the deliberate planning and design of the old village are by far superior to the modern random building. For in spite of technological progress we are still not able to change

the climate, nor prevent earthquakes or even change topography except at great cost: in this case, why not allow the built-up environment to continue collaborating with the site and its possibilities, as it always did? Since we have not so far found any permanent solution to plenty of cheap energy, why not design for future crises by employing some of the principles inherent in the vernacular village, and which have been the basis for its survival through centuries, perhaps even millennia? Such principles ought to be considered indispensable, also when expanding the village today, as long as we cannot guarantee that our present welfare is going to last forever.

The third chapter deals with those traditional principles that may be considered when planning in the future, so that "eternal values" in this specific village can be preserved, so that it is rebuilt and expanded according to its own premise, when it is relevant today. Sound economy has always been to economize with means and let prosperity also be a means to cope with hard times. It is with this in mind that the best qualities of the traditional village ought to be preserved together with other morphologic or psychologic merits.

Before going into the matter I should like to thank the many people whose help and support have been invaluable. First of all the former director of the Ethnologic Museum in Salonica, Dr Stelios Papadopoulos and his assistant Vivi Nikitas, who have not only shown vivid interest in my work but also helped me to borrow books that would have been impossible to access in a country where libraries are few and the choice of books limited. Then there are my old friends in Galatista, first of all the late craftsman Tasos Mastrokostas, the old shoemaker Dimitris Samaras, my old landlady Triantaphyllia Koutsaris, and Stella Panelas, who have all contributed to this book with their accounts of life in the old days. I owe special thanks to the people who readily gave me permission to survey their houses: Dimitris Panelas, Yannis Kanavas, Athanasios Matsoukis, Evangelos Panelas, Tasos and Trigona Mastrokostas, and Emanuel Angelakis. To countless inhabitants in Galatista my warmest thanks for their kind hospitality and readiness to answer any question concerning their village. Finally I should not forget friends and colleagues in Denmark whose interest and support from the very beginning have been most encouraging, including some who even helped to survey like Ida, Michael and Søren Varming (Matsoukis house, threshing-floor).

Chapter I

The preindustrial village

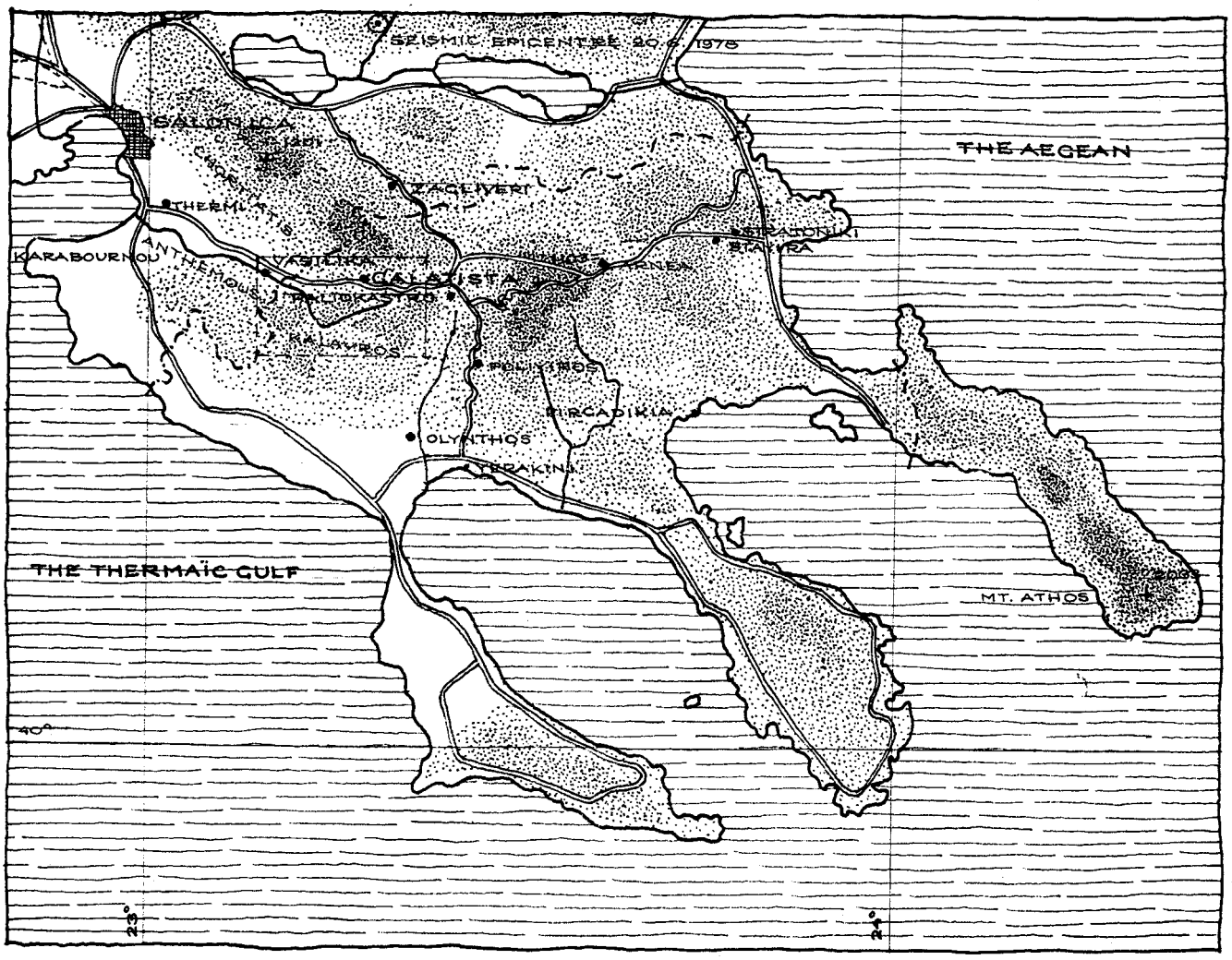


Fig. 2. Map of Chalkidiki. ca. 1:1,500,000.

The geographic setting

Topography. The three-fingered peninsula to the south of Salonica is called Chalkidiki, and this is at the same time the name of a prefecture (*nomos*) with centre of administration in Poliyiros (Fig. 2). Galatista, which is one of the principal villages of the prefecture, is situated on a south slope of the Chortiatis range at a height of about 460 m, between the Anthemous valley to the south and the highland to the north above the village (Fig. 3).

If you study the geography of Galatista more closely, you will see that here is yet another Mediterranean habitation situated near arable land at a rare spot where springs with perennial water supply have their source. Such Mediterranean settlements are so well adapted to the environment that they may have endured right from antiquity up to the present day (1).

The rocky underground has proved a safe building site in an area with frequent and strong earthquakes. Due to the fact, that the rift between the European and the African plates goes through the valley with the two lakes to the north of Chalkidiki, this area also has the strongest seismicity in Europe (2). And yet, as we shall see later, this village has buildings of hundreds of years of age. In 1978, during a very strong earthquake of 6.5 on the Richter scale, Galatista, at about the same distance to the epicentre as Salonica, suffered hardly any damage, while Salonica had a high rate of buildings made uninhabitable.

Maquis and wasteland. The position of Galatista on a rocky unfertile slope, between the maquis on the mountain above the village and cultivable land at its feet, was well chosen since arable land was not wasted on building sites in a country where only 25% of land is arable.

The impenetrable maquis, with its range of evergreen shrubs, is a characteristic feature of the Mediterranean

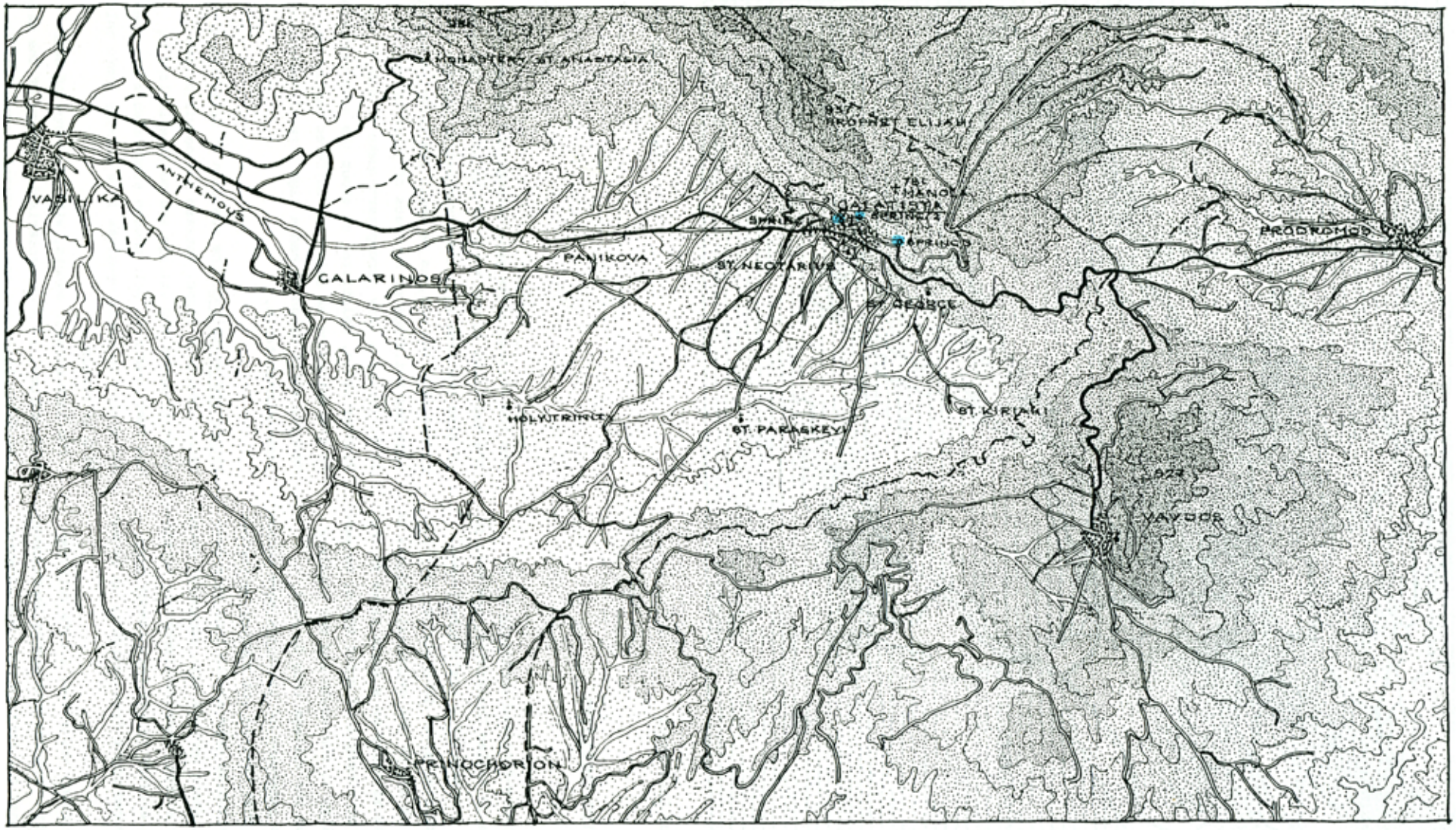


Fig. 3. Galatista and surrounding country.

landscape and may normally reach the level of about 500 m, depending on the microclimate (3), but here on the south slope it reaches nearly 800 m. Its immediate vicinity must have been a great benefit in times of danger when it could serve as recess; its presence was guarantee against erosion and flooding of the village, and a whole assortment of raw products such as brushwood, tannin, dyes and building materials could be gathered here.

The Kermes oak is by far the most prevailing vegetation of this maquis. It is normally a shrub, not much higher than 3 m, but if it is left to grow, it may become a small tree (4). The felling of trees for timber must have been going on for centuries - if not millennia, and so the last place where trees could still be felled, was to the east of Galatista, and today, one of the few places where one can still see clumps of fully grown trees, is the small grove surrounding St George's chapel to the south east of Galatista (Fig. 3 & 5).

It must have been the hard wood of the Kermes oak which was formerly used as timber in the houses of Galatista: its high percentage of tannin makes it very resistant against rot and noxious insects, and as we shall see, the local builder knew how to make the most of it.

Gardens and orchards. Just below the village is a vast terraced area. Here were the gardens and orchards, easily accessible for tilling and the daily pick of vegetables in season. In summertime, during the drought, it was irrigated through a well-ordered irrigation system, which will be discussed later. Fruit trees, mainly fig and pomegranate trees, grow in particular along the boundaries that are often defined by rubble retaining walls. Scattered all over the area are huge walnut trees and a few sweet chestnut trees (Map 1).

Arable land. Below the gardens, their natural boundary being that of the utmost extent of the irrigation system, an immense plain of arable land stretches out at both sides of the Anthemous stream and as far as the Kalavros mountain range at the other side of the valley, and down towards Vasilika (Fig. 4).

Another vast area of arable land is on the plateau above the village. These two plains are used mainly for grain cultivation.

Olive groves. At the end of the valley to the east is a hilly upland, less arable but well screened against cold winds in winter, thus providing the right conditions for olive groves in an area so far away from the sea and the milder climate there. Olive cultivation needs less tending than most other cultivations, and so less traffic is necessary to these distant areas, except during the olive harvest in late autumn.

Vineyards. Most vineyards were situated on the slopes east of the olive groves. The deep roots of the vine make it independent of stagnant surface water.

Microclimate. The climate of Galatista is continental as in most other parts of Northern Greece. Summer may be very hot, averaging 26-27°C and winter rather cold with an average of 5-6°C (5). Yet due to the semi-mountainous position of Galatista, summer is somewhat more temperate and winter correspondingly colder. The south slope, which has a gradient of 15-25%, is made the most of by situating the houses in such a way that the living quarters have sun all year, thus following the wise advice of ancient writers (6). I have personally seen old women sitting and knitting peacefully on their balconies, when the whole village was otherwise covered with snow.

The Chortiatis range has an annual rainfall of 800-l000 mm (7), which is well above average in Greece. In late autumn and winter it is like continuous rain, lasting for days or even weeks. In early autumn, spring and perhaps a few times during summer, rain usually turns up as short-lived torrents.

The fierce dry Boreas, called Vardaris in the area of Salonica, is weakened by the Chortiatis range and turned into a wind coming to Galatista from the west.

Water. The existence of plenty of pure water, easily accessible for humans as well as their domestic animals, is a crucial factor in an arid country like Greece. Its abundance was also a very important factor as to how many inhabitants a settlement could possibly hold in ancient times (8). The whole problem of regulating the water supply, especially for irrigation, very early taught the inhabitants of the Mediterranean countryside to collaborate for the common good and so prepared them for the wider cooperation within the ancient city-state (9).

Galatista is in a very fortunate situation indeed, for ample pure water comes from two springs that have their source in folds in the mountain (Fig. 3). Water from a third spring to the east of the village was never piped down into the fountain system, yet still used for irrigation. To the west of Galatista was a seasonal spring which could be used for irrigation, but it ran dry before the Second World War (l0) (Fig. 6 & 7).

The two springs in the village are among the sources of the Anthemous stream, and after having served man, they leave the village as two rushing brooks, running through gullies that are sometimes up to 6 m deep in the soft ground.

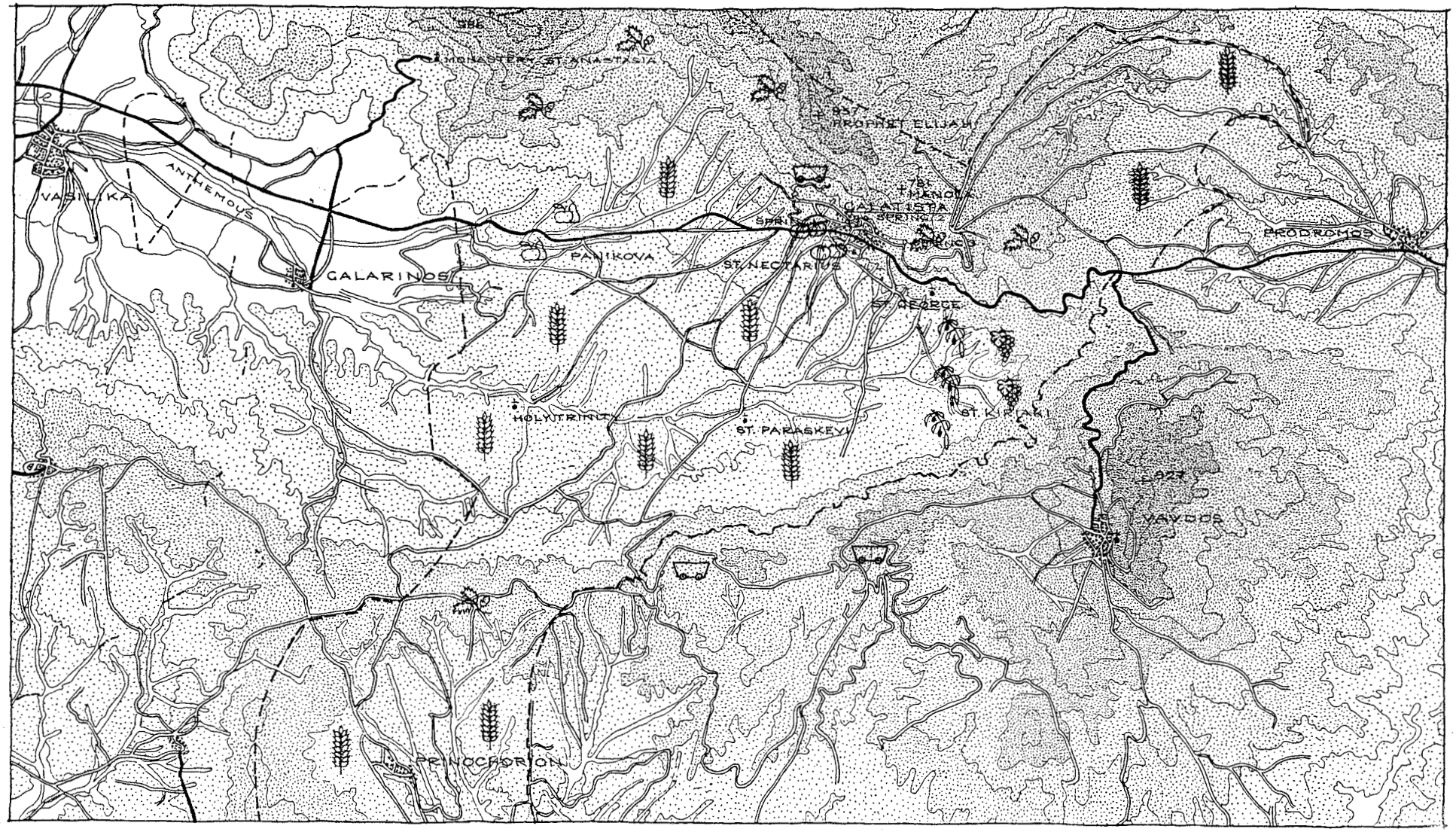


Fig. 4. Use of land surrounding Galatista.

ca. 1 : 60,000

Corn fields Vineyards Olivegroves Orchards Gardens Forest / Maquis Mine / Quarry

Fig. 5. The Kermes oak.

Fig. 7. Spring 2 above the village.

Fig. 6. Spring 1 at St George.

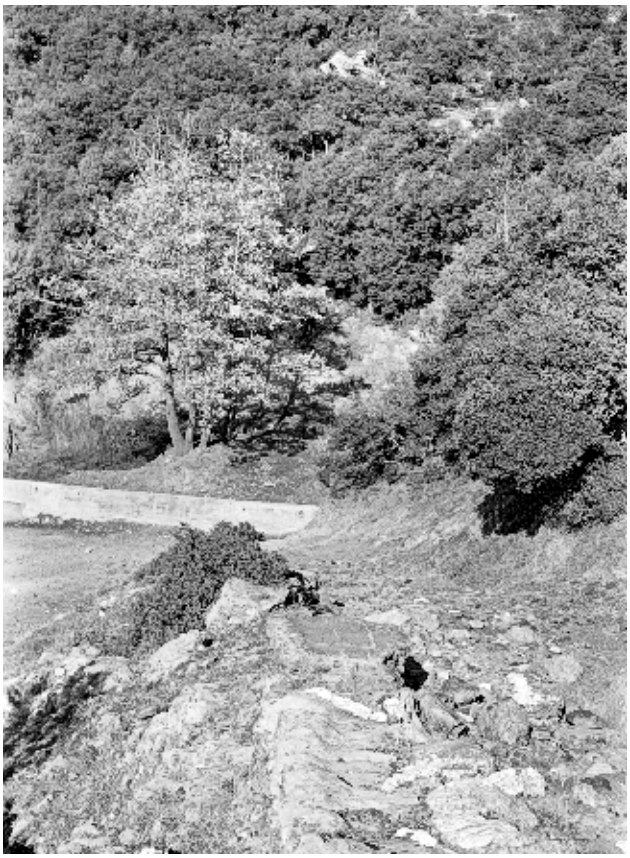


Fig. 8. Spring 3 and remains of the caravan route.

Throughout centuries, lack of sufficient water, as well as of arable land, has been one of the main reasons for emigration from Greece and a driving force behind colonisation in antiquity (11). In 1951, before the last wave of emigration from Galatista in the sixties, the population had reached a peak of close to 3000 inhabitants (12). And yet emigration has not been the only solution to an old problem. There are examples, as we shall see, of whole villages that were transferred to more advantageous sites after total destruction caused by war, earthquake or landslide.

Traffic. Galatista was also favourably situated in terms of traffic, being located on the caravan route connecting Salonica with towns and villages in Chalkidiki, and the monastic state of Mount Athos. This allowed certain enterprises like caravan transport, inns, forges, saddleries, bakeries and markets to prosper and develop into an extra income source for the inhabitants.

Quarry and mines. Before finishing this section it should be mentioned that just outside Galatista, to the north west, is a small quarry, and in the Kalavros Mountains is a large mining area which belongs to Vavdos. It is mainly magnesia that is mined there, and some Galatistans have found work in these from time immemorial.

Historical evidence

Prehistorical evidence. Considering its advantageous geographic situation, Galatista might well have been a settlement already in prehistoric times, but this can of course only be proven by excavations. In any case, there is evidence of prehistoric settlements in the area, for instance on a mound down at Panikova to the west of Galatista (1), and important prehistoric settlements have recently been discovered further down at Vasilika (2).

Myths. Another hint that the settlement's origin may go as far back as mythical times, is a tradition still alive in Galatista: two apparently diverging legends, that also occur in different versions all over the Eastern Mediterranean (3). The essence of all the stories is the betrayal of a father's secret stronghold by a careless girl, and she is then either married to or killed by the conquering hero.

The first legend, which is obviously a variant of the myth of Theseus and Ariadne, was narrated by an old grandmother:

"Once upon a time Galatista was situated down in the valley, and after it had been destroyed by war or an earthquake, a young man from the village came hunting in the thick forest that once covered the site, where Galatista is situated today. Having lost his way, he came upon a purling spring, and sat down to quench his thirst when he got sight of a mighty tower, no other than the old tower still to be seen today. Curious, he went to have a look at it and discovered that a princess was living in it. The two young people fell in love at first sight, and in order that the young man could find his way back again, she gave him a ball of red yarn, and one day he came back, married the princess and together they founded a new village around the tower."

The second variant is told more often in Galatista and here the stronghold is not betrayed by a daughter but by a careless maid.

"Once upon a time there was nothing but thick forest where Galatista is situated today, only a royal family was living in the tower still to be seen. One day a maid of the royal household had gone to fetch water at the spring below the tower, and as she was knitting on her way, she lost her yarn ball at the spring without noticing it. A band of robbers, roaming through the forest, came to the spring and sat down to quench their thirst. They got sight of the yarn ball and realised immediately that people must be living nearby, and so they decided to follow the thread. Soon after they discovered the big tower, attacked it, killed the royal family and robbed it of its treasures" (4).

These legends are of course to be regarded as parables as well: the fortification being a metaphor of female steadfastness comparable to the impregnability of a town, which is open to outsiders of honourable intention only, or else may fall easy prey through one careless action. Whole cults had their origin in these ideas at times, when the foundation of a town was not a mere functional procedure, but also an important spiritual act to overcome anxieties, deeply rooted in primitive man, who was surrounded by enemies, either human beings or hostile nature (5).

Ancient written evidence. During the 8th century B.C. the Macedonians, a tribe among others to the west of the Thermaic Gulf, became a power to reckon with under the rule of the Argead kings. They were perpetually increasing their area of domain, as Thucydides tells, and in 508 B.C. the valley of Anthemous, till then a part of Thrace, became Macedonian together with other neighbouring areas to the north (6). From then on, this fertile valley became a sort of royal fief always claimed by the Macedonian kings, as remarked by Demosthenes, and the Kalavros range was thence the natural border towards Chalkidiki (7).

During the 5th century B.C. hostility was growing between Macedonia and Athens, and in 429 B.C. one of the Thracian allies of Athens, Sitalcas from upper Strymon in today's southern Yugoslavia, came ravaging through Macedonia, including Anthemous (8), but due to the intrigues of King Perdiccas he was deposed and sent back home after a campaign of only thirty days (9). It was about this time that a new power emerged in the area: Olynthos. Perdiccas had persuaded the small coastal towns of Chalkidiki to form a synoecism and stronghold at Olynthos in order to better resist Athenian supremacy (10), but in 432 B.C. Olynthos was finally captured by Athens. It was probably around this time that Olynthos was replanned according to Hippodamian principles (11).

In the 4th century B.C. Anthemous came alternatively under Macedonian and Olynthian domination (12), but after the total destruction of Olynthos by Philip II in 348 B.C. Anthemous remained Macedonian (13), and so we learn that Anthemous sent out a squadron, about 200 men, to join Alexander the Great's cavalry on his campaign into Asia (14).

Macedonia had done away with tribalism in the beginning of the 5th century B.C., and from then on the inhabitants lived as free citizens with their own economy in self-governing towns. However, they were only independent up to a certain point as they had to pay tax to the king, train their own levy as a home guard and contribute their quota of *Macedones* to the king's army (15). These *Macedones* acquired a higher citizenship through personal merit, independently of race or tribe (16). The Macedonian towns seem to have been situated together with the royal estates on the plains along the coast (17), and these communities were not based on slavery as elsewhere in Greece (18).

The name of Galatista. There has been a great deal of discussion whether ancient Anthemous was situated at Vasilika or at Galatista. The name Galatista is supposed to date back to the times of Philip III, when Galatians, who went ravaging through Greece at that time, were left to take the abandoned town over, and so Anthemous changed name to Galatista (19).

The foundation of Salonica 315 B.C. Before concluding the ancient written evidence concerning Galatista, it should be mentioned that Salonica was founded about 315 B.C. as yet another synoecism, by Cassandros, husband of Philip II's daughter, Thessaloniki (20). The new town was named after her and was to become one of the most important commercial and cultural centres in the Greek world, especially during the Byzantine era,

Fig. 9. Byzantine defence tower.

Fig. 10. Roman tomb stele.

when it was second in importance only to Constantinople.

Written evidence from 897 A.D. After antiquity there is no written evidence concerning Galatista until 897 A.D., when it is mentioned as "Galatissa" referring to monastic properties of the area in the annals of Meyistis Laura on Mount Athos (21).

Archaeological remains in Galatista. Galatista has some archaeoloial remains that should be mentioned at this point. Firstly there is the Roman tomb stele at the north entrance of St Nicholas, but there are also marble fragments from early Christian churches built into the front of the Byzantine tower or used as bases for columns in St Demetrius, not to mention the Ionic capital used as the base for the bishop's throne in St Paraskevi (22) (Map 1, Nos. l0, 2, 5 & 7).

The Middle Ages. During the Middle Ages certain events occurred which left their stamp on the village: the lower part of the Byzantine defence tower (Map 1, No. 2) is from the 10th century (23), when mainland Greece was invaded by Bulgars. The whole of Macedonia, except Salonica (24), was annexed together with Epirus and Thessaly and these were not restored to Byzantium until the beginning of the next century (25).

The Turkish threat. The top part of the Byzantine tower is a restoration of the original from the l0th century and dates back to the 14th century (23). At that time the Byzantine Empire was approaching further disintegration. Civil wars had left it effete and incapable of establishing the internal unity necessary to face the common enemy: the Turks. The peasants had become so impoverished and enslaved during the feudalism of the previous centuries that they had nothing to lose, new masters could hardly be worse. In no other country did the "nobility" have de facto such privileges as in Greece (26). Only remote principal villages (*kephalochoria*) in the mountains and hills had been able to preserve private peasant holdings, as the soil was too poor and of little economic interest, while the fertile land in the plains had been annexed by the crown, the nobility and the Church, and the peasants reduced to serfs (27). The new Turkish overlords later blamed the former Byzantine rulers for the way they had treated the poor and subordinated, and regarded this as being one of the reasons why Allah had decided to hand the country over to the Turks (28).

The fall of Salonica 1430. For the defence of Salonica there was a whole system of defence towers in towns and villages (29), and Salonica was in fact able to withstand Turkish siege until 1430, nearly fifty years after the rest of Macedonia had become a Turkish conquest.

The Turkish occupation. After the Turkish occupation the large Byzantine estates were annexed by the sultan as his private property, while the abovementioned *kephalochoria* managed to maintain their regime of small privately owned landholdings and remain relatively independent economically. The sultan could endow land as fiefs to Turks or Greeks who had adopted Islam, and these were the so-called *tsiflikia.* Following Koranic law, Turks would donate land to mosques and hospitals, while Greeks would donate land to monasteries in order to prevent Greek land falling into Turkish hands. In this way some monasteries became very rich indeed (30). The monastery of St Anastasia is part of the community of Galatista, yet its vast property of fertile land in the Anthemous valley has been left uncultivated for years like the land belonging to many other monasteries throughout Greece (31).

The Turks did not settle in the mountainous interior of Chalkidiki, but mainly along the fertile strip of land along the west coast.

The 18th century. The 18th century was a time of economic progress in the towns, but in the countryside the situation was difficult and heavy taxation made it even worse. This was the time when some emigration had begun inside the Ottoman empire. Greeks, especially from Northern Greece, would try their luck in other countries of the Balkans, in Europe or in Egypt, making use of their innate flair for business.

Much as Greeks do today, the men would leave their families back in the village, support them and come back for a visit now and then. When they had made good abroad, they would return and settle down in their native village, enlarging their family property and building themselves an impressive house (32). Many of the great Macedonian mansions (*archontika*) date back to this time (33).

Galatista had only a Greek population, as recorded by foreign travellers. The village was populous, well organized and autonomous, but was obliged to pay heavy taxes to the sultan (34). Only the police were Turkish, staying beside the large *archontiko*, where the modern police station is situated today (35) (Map 2, FB 11).

The Mademochoria. Galatista was at that time one of the leading members of a federation of villages in Chalkidiki. These were the so-called Mademochoria (36) that had joined together in a league in order to

organize the administration of the sultan's silver mines near Stratoniki. The federation had to provide the workforce and was obliged annually to deliver a certain amount of silver to the sultan. Each of the villages was self-governed by a council of village elders that were chosen among the archons, i.e. the village upper class (37). Problems concerning the federation were first discussed back in the village before its representative would speak their mind at the general meeting in Arnea. In order that something could be passed as a law, it was necessary that the law document had the seal of the council. The seal consisted of twelve similar parts that were handed over to the representative of each principal village. This evidence of democratic rule among villages is unique in annals of Greek communities and is probably influenced by the like constitution of the monastic state on Mount Athos (38).

The Mademochoria had no other obligations in the form of tax to the sultan, and that is the reason why Chalkidiki was relatively prosperous in relation to other parts of Greece. They were directly responsible to the aga in Stayira and had to maintain him together with his attendants and soldiers. However, at the outbreak of the Greek revolution in 1821 the whole system broke down (39).

The Greek war of independence 1821. The revolution started in the Peloponnese early in the spring of 1821, and soon after it also spread to Chalkidiki, but was crushed down by the Turkish army. In Galatista a few hundred men fought against the superior Turkish army for an hour before they had to flee, leaving 150 women and children behind who were gathered and sold as slaves. The village was set on fire and most houses burnt down (40).

The situation became much more difficult. Heavy taxes were levied to maintain an increased force of 1000 Turkish soldiers (41), and in 1866 the Mademochoria, once consisting of 360 villages (42), were reduced to only 9 *kephalochoria* (43). Not until 1914, after the Balkan Wars, was Chalkidiki restored to Greece together with the rest of Macedonia, Epirus and Thrace.

After the liberation in 1914. From then on Greek centralized administration took over. This kind of governance was established in the free parts of Greece after the revolution in 1821, when the first Greek king from Bavaria came to the throne. It followed Central European patterns of autarchic governance, completely contrary to the long Greek tradition of self-governing villages. Any important project in the village had to be approved of by the county prefect (*nomarch*) of the area, and if the village happened not to have voted for the party in power, it might be pretty near impossible, especially if the project required money from the state. This meant of course that the ruling party had the upper hand throughout the country (44).

Land reform in 1917. After liberation from the Turks the properties of the *kephalochoria* and monasteries remained much as they had been during the occupation; but the *tsiflikia*, that had belonged to the beys, were bought by wealthy Greeks and tilled by tenants just as before (45). It was not before the radical policy of Venizelos's government in 1917, that these *tsiflikia* were expropriated. Landlords owing more than 200 hectares had to part with the surplus, which was given to those who tilled it on the condition that the plot they had gained was fully paid. Each proprietor was allowed to keep up to 30 hectares (46). The bold politics of Solon in the 6th century B.C. had been repeated 2500 years later!

Land reform in 1952. The population was rapidly growing, not least because of the population exchange imposed by the Lausanne Treaty of 1923, when Greece had to accommodate more than a million Greek refugees from Turkey and Bulgaria. The demand for land was consequently still increasing for one should not forget that Greece was so far mainly rural and had not yet adopted more modern and scientific methods of cultivation. In 1952 the Church agreed to allow a total of 150,000 hectares, representing one fourth of its property, to be expropriated and redistributed to peasants. At the same time it was also attempted through legislation to transfer all land belonging to large landholders into the hands of the peasant tenants who tilled it (47).

Some figures will help to clarify the problem (48).

Greek population

1861: 23 persons /km^2 (in what was then Greece)
1951: 149 persons /km^2 (in what is Greece today)

Land per farm person in 1951

Greece: 0.5 ha
India: 0.5 ha
U.S.A.: 6.8 ha

It had become nearly impossible for the small land owner to make a living; all he produced was hatred. So once again in the long course of Greek history there was no other alternative than emigration, but this time whole

families, and not only the men, went abroad. A stream of emigrants went mainly to Australia and the U.S.A. between, and sometime after the two World Wars. Only a few would ever return to their native village and then only to spend their old age there (49).

It was about this time, in the fifties, that the turning point came. Modern methods of agriculture were gaining more and more followers, industrialization was on the way.

Traditional agricultural economy

The peasant in ancient Greece. The economic principle of farming as we encounter it in Hesiod, was farming for self-sufficiency. The peasant in *Works and Days* considered his occupation a way of life and not business for profit. He would rather live on a bare minimum of subsistence than sell his ancestral land, and if he had to sell it he would rather sell it to a kinsman, so that the property remained in the hands of the extended family (1), and this is still the case today (2). To work for someone as a hireling was considered beneath the dignity of a free man. This incarnate Greek reluctance to work for others and be at their beck and call has also been expressed by Homer (Odyssey) and Xenophon (Memorabila) (3). Farming as a free man was honourable, and Odysseus was so proud of his accomplishments in this field, that he did not hesitate to compete with others in mowing or ploughing with oxen (4).

Both in Homer and Hesiod, there is evidence that the practice of letting land lay fallow was just as common in antiquity as it was in modern Greece till after the Second World War (5).

The peasant in preindustrial Greece. Throughout the centuries the Greek peasant was adapted to what has been called "economy of needs". He might have an extra source of income, performing some skilled profession, but he would still be a farmer. If he did not have time to farm himself, he would leave it to his family (6).

In case there was any surplus at all, he could sell it at the nearest market and obtain some cash to buy equipment for the farm or a few luxuries like coffee and sugar. If he managed to save enough money, he would buy British gold sovereigns to hide away at home to meet lean years in future, to increase his property or to endow his daughters (7).

Tax was paid mainly as tithes on corn and olive oil in this nonmonetary economy, but apart from that it was very old practice to assign every able-bodied adult to work up to ten days a year for the benefit of the community (8). Churches and schools were built this way. Members of the community collected the stones but the building was done by skilled craftsmen (9).

The reason why the holdings had become so small (cf. p. 23), was that the land had been divided into smaller and smaller plots through inheritance among more and more descendants, so the situation in 1954 was as follows (10):.

37% of Greek farms were smaller than 1 ha
51% of Greek farms were between 1 ha and 50 ha

Cooperatives in Greece. Since the turn of this century, attempts have been made to encourage the independent and very individualistic peasant to join cooperatives in order to deal more effectively with exploitive middlemen, obtain loans at more favourable terms and buy farm equipment at more favourable prices. The result, with a few exceptions, was very discouraging due partly to lack of education but also to the social structure of a community, where each member relied solely on cooperation within the narrow circle of trusted people: the extended family and to a lesser degree, people in the immediate neighbourhood (11).

Statistics concerning Galatista. In spite of repeated efforts, it has not been possible to obtain statistic particulars about the utilization of the land before 1971, so valuable information, drawn from comparison with previous years, is not feasible. However, by studying the data from 1971, a rough idea of the proportion of cultivated to non-cultivated land, and the extent of cultivable land owned by the communities and the monastery St Anastasia can be obtained (cf. Fig. 4).

Of a total area of 10,100 ha, including areas belonging to Prinochorion and the monastery, there was the following distribution (12):

Cultivable land:

Land under plough	3,189 ha	(25 ha were irrigable)
Gardens	26 ha	(21.5 ha " ")
Orchards, olive groves	238 ha	(32 ha " ")
Vineyards	37 ha	
Fallow land	5 ha	
Total ca.	3,500 ha	

500 ha of this area belong to Prinochorion and 300 ha to the monastery.

Uncultivated land:

Forest, Maquis	6,010 ha
Built-up area, roads	340 ha
Other area	250 ha
Total	6,600 ha

It appears from these numbers that 34.7% of the land is arable, which is well above the average for the whole of Greece (cf. Fig.1).

Population (including Prinochorion and the monastery)

Year	1941	1951	1961	1971	1981
Population	2961	2904	2570	2420	2168

Distribution of the population in 1941:

Galatista	2675
Prinochorion	129
The monastery	157
Total	2961

If we now suppose that the amount of cultivable land has remained about the same since 1941, the average amount of cultivable land per inhabitant in that year would have been as follows:

Galatista	1.0 ha
Prinochorion	3.8 ha
The monastery	1.9 ha

In 1951 the population had only decreased by 1.9%, and we may suppose that the average amount of cultivable land per inhabitant had changed only slightly by that time, and by an increase. So if we compare the average of 0.5 ha per farm person in Greece in 1951 (cf p. 23), it is evident that Galatista was much better off than most farming communities in Greece, as certainly, by 1951, many of the inhabitants were not making a living by farming anymore, but had other occupations which would have increased the average income even further.

The comparative natural wealth of Galatista no doubt also contributed to the fact that emigration to foreign countries was rare, as stated by the inhabitants; only a few of the villagers left for Australia and the U.S.A., and some have returned to start a new life on a stronger financial basis, in their native village (13).

The agricultural year. Following ancient tradition, the agricultural year began 1st September (14). At this time in ancient Greece, the Great Mysteries took place in Eleusis to honour Demeter, goddess of agriculture and fertility. The soil would be prepared for grain cultivation when the first rains set in after the summer drought, and the sowing would then take place after St Demetrius's day, on 26th October.

The diagram of the agricultural year, showing the work that had to be carried out throughout the year, will make the seasonable activities and their whereabouts much clearer than many words (cf. Fig. 11).

The Domka System. To address the problem of cultivating divided holdings, the Domka System was widely used in Macedonia as well as in other parts of Greece. All the land of the community, reserved for annual cultivation, was divided into three sections. In any given year all of the land in one section, owned by various families, was used to grow the predominant crop, the second section was kept fallow for a year, and the third section lay fallow for a longer period and was used for pastures (15).

It is interesting in this connection that not only ancient Greeks, but Romans as well, employed this technique of letting land lie fallow. Indeed, until quite recently, a similar method of "dry farming" was applied in new countries of similar climate with low annual average rainfall, like certain parts of the U.S.A., Argentina, Australia and South Africa (16).

Cattle breeding. Sheep and goats are by far the predominant livestock. These robust animals are much better fitted for the geographic conditions of Greece than cows, which require a great deal of drinking water. Since the water of the village is limited, it is not possible to keep large numbers of cattle stabled inside its confines, and so most of the herd is given over to the care of shepherds, who camp with their flocks, often far away from the village and often outside its borders, if they have managed to hire pastures at more favourable terms there.

In the preindustrial community, with large areas left fallow, there was always land for pasturing, so the cattle would contribute to the natural manuring of the soil at the same time as eating the weeds. Herds were even left to weed the corn fields as soon as the corn had taken roots.

The farm house. The only animals stabled at home were the draught animals, the Christmas pig and a few house goats, that a shepherd might take out for pasturing during daytime. So there was neither need for large stables nor barns for storing fodder for the few months during winter, when the grass had withered. For that we see the same arrangement in all the old houses: a basement serving at the same time as stable, barn, store room and larder, and of the same size as the dwelling on the first floor. This arrangement also had the advantage that the heat of the stable would warm the dwelling.

Men's and women's tasks. Work at the farm was divided into men's and women's work. Generally one

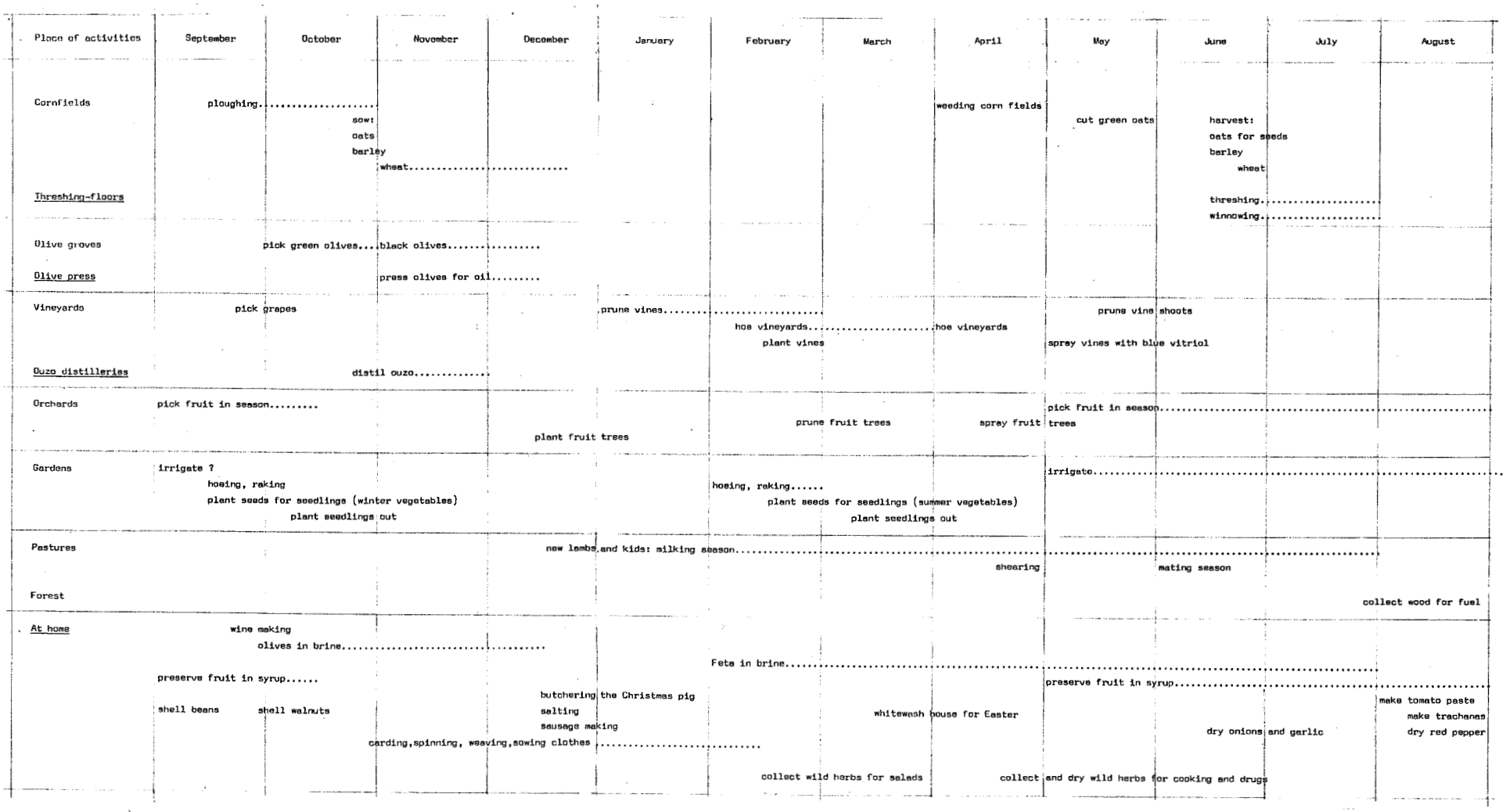


Fig. 11. Diagram of the agricultural year.

may say that men's work was mainly outside the home, providing for the raw products. Women would join the men when any of the crops were ready to be reaped, just as the men would only plough and prepare the garden for sowing, since the gardening was the women's work.

Storage. Women were busy at home, preparing and storing many of the farm products to feed the family a long time ahead. In the basement there was a large selection of provisions:

Wine: Claret, retsina and muscatel
Tsipouro (a kind of homemade ouzo)
Feta in brine (made of the daily surplus milk)
Olive oil
Green and black olives, pickled or in olive oil
Wheat flour (milled with the bran)
Dried beans, peas etc. from the garden
Dried onions, garlic and red pepper from the garden
Tomato paste
Trachanas (macaroni pellets made from milk and cracked wheat kernels)
Dried aromatic herbs (see Fig. 155)
Dried medical herbs (see Fig. 155)
Dried figs
Walnuts
Fruit confection in syrup (for visitors)
Brandy flavoured with unripe walnuts (for visitors)

Daily fresh food. The daily fresh additions to the diet would be eggs, milk and various vegetables in season all year round (cf. Fig. 153). Fresh fruit in season could only be had half the year (cf. Fig. 152). A special contribution was, and still is, wild greens collected in early spring (cf. Fig. 154). They are either boiled for salads, or they may form part of the ingredients in the huge pies (*pitta*), so characteristic of mainland Greece.

Meat was a rare treat, except for fowl now and then. Yet at Christmas there would be great feasting and merrymaking after the family pig had been butchered and the surplus meat salted down or made into sausages. At Easter each family would slaughter a chosen lamb from their herd; in Galatista it was baked in the oven and not grilled on spit in the open, as is common in other parts of Greece. Lamb would also be killed for important family events like baptisms, weddings, the name day of the head of the family, and on St Demetrius's day, when the patron saint of Galatista was celebrated and relatives from near and far would arrive and take part in the *paniyiri* (festival) of the whole village.

Greek cooking. Greek cooking belongs to one of the oldest cuisines in the world, that of the Middle East (17). For ages Greece had had much more to do, culturally and commercially with the countries in the Eastern Mediterranean than with any other part of the world (18). These countries have the same arid climate, so sheep and goat breeding is prevalent there too. Another common trait is the prolonged fasts required by the different religions in the area. If one obeys the rules set up by the Greek Orthodox Church, it is not possible to eat meat more than half the days of the year, and this may originally have been a remedy against overgrazing.

The basic Greek food is the so-called *lathera* ("oil food"), which consists of fresh vegetables in season, baked or stewed together in oil with the inevitable dose of chopped onions, and flavoured with various aromatic herbs (19). This is food, simple to prepare with a minimum of tools, and yet cooked in such a way that the food value is preserved at the same time as the oil enhances the flavour and contributes to calories (cf. p. 145). It is cooking fit to pass from mother to daughter among illiterate women, at the same time allowing for some limited personal improvisation.

Places for cooking. Food was either cooked on a tripod in one of the open fireplaces on the first floor or in an open fireplace in the courtyard. The traditional oven found in Greek villages was a wood-fired oven, often constructed as a small detached building outside the house. Reference in the text to "ovens" indicates these traditional wood-fired ovens.

If bread was baked in the oven, food would be cooked after the bread had been taken out, thus making use of the afterheat. Baking was, and partly still is, a neighbourhood enterprise, the fuel being dry shrubs from the nearby wasteland and forest. This was a very economic way of cooking in a country where fuel was scarce. Galatista has preserved many of the old ovens, usually in the form of small detached buildings in the courtyards (Figs. 15 & 125).

Weaving. The women would use any spare time turning sheep wool into blankets or clothes for the family. In every house there used to be a loom, and Galatista was especially famous for its fine thin blankets that one may still see in May, when they are all hung out to dry after having been washed, before they are stored for the summer (20).

Goat wool was woven into sacks and bags and into rainproof shepherd's cloaks. The loom was either on the open verandah (*chayati*) or on a special platform in the basement, raised 1-1.5 m, if the height to the ceiling was sufficient.

Recycling. Nothing was wasted but was either used for something else or recycled. Worn out clothes were cut up and woven into runners or sewn up as patchwork mats. An occasional newspaper was carefully folded and used for wrapping or cut up and used as toilet paper, before it was finally burnt. Kitchen waste was used to feed the watchdog, the hens, and the pig, while manure and human excrement from the stable were used to manure fields and gardens.

Social structure

Group of support: the kindred (1). As mentioned before, Galatista was among the principal villages, which seem to have retained their self-government continually through the ages, and which always consisted of independent peasants who cultivated the land for self-sufficiency. To address the constant insecurity inherent not only in the occupation itself, but also in life in a highly competitive society with political instability, wars and occupations, there was one large group inside the village that the peasant could rely on for support and help: his kindred and first of all, the extended patriarchal family (2).

The extended patriarchal family. The extended patriarchal family consisted of a father and all his descendants in the male line, plus wives and daughters. This group formed a work team under the supremacy of the men; all effort was pooled for the common welfare and most of all for the future of its children (3). Every able bodied member of the family, from children to old people, took part in work, each in accordance with his ability, and all moveable property was shared freely among them (4).

The patriarchal house. The father lived with his sons under the same roof, until the sons married and had children of their own. It would then be time for them to move out into a dwelling of their own, if there was money enough for it. Only the youngest son remained with his family to look after his aged parents and to take over the old house after their death (5). This arrangement seems to have Indo-European roots (6).

If there were too many sons and too little property to support them all, several possibilities remained open. Until the turn of this century it was not unusual for the poor young man to choose the life of a monk, and if he was gifted, he could make a career in the Church (7). He could also choose the cursed fate of the emigrant, lamented in antiquity (8) as in modern Greek songs. He would then leave his village with a firm belief in its culture and stay away only long enough to return to his old way of life on a stronger financial basis. This kind of emigration served to strengthen the old village culture rather than to destroy it, which was to happen later (9). Finally he could marry the heiress of a family without sons and move into her house as an *esogambros* (*eso* = inside, *gambros* = groom) and cultivate her property. He would still keep his masculine superiority in the new home, deferring only to his wife's parents, but he could not sell her property without her signature (10). In the Odyssey there is an example of such a marriage arrangement (11).

In Galatista daughters had no right to their father's property and received no share as a dowry, when they married. If her family was not too poor, they might give her a small field or a threshing-floor as a wedding gift, but more often than not she brought only her trousseau with her (12).

Separate home for married sons. Several means were adopted to provide a home for the married sons. In BC1 (Map 2) two brothers had shared a house that once was one single house. A partition wall of half-timbering had been erected and the house divided into two equal parts. In the western part the sons of one of the brothers were later to occupy each his room, where he lived together with his wife and children (13). This solution was only possible because the original house had been very large.

In the D. Panelas house KB4w (cf. p. 63 f) two unrelated families had come to share the house, until the father of the present owner was able to buy the other part and the house became one property.

In the Y. Goutsaris house KC1 (cf. p. 60 f) three families, belonging to the same kindred, once shared the whole house after thorough rebuilding; in this connection it is worth mentioning that the wife in the eastern part had inherited one of the rooms, belonging to her husband's brother, because she had nursed him in his old age.

The E. Angelakis house BG2 (cf. p. 97 f) could only be increased towards the south because it is a row house. When the open gallery was finally incorporated into the western part as a kitchen, the house dropped to a low standard, as it then possessed a room in the middle of the house without daylight.

The Y. Kanavas BA2w (cf. p. 70 f) and A. Matsoukis BB2w (cf. p. 79) houses were both parts of larger houses that had been shared so long ago that the neighbours are no longer relatives. Such sharing of the patriarchal home was common not only in Galatista but in other parts of Greece as well (14), and even in antiquity (15).

The double house. This is a very common house type,

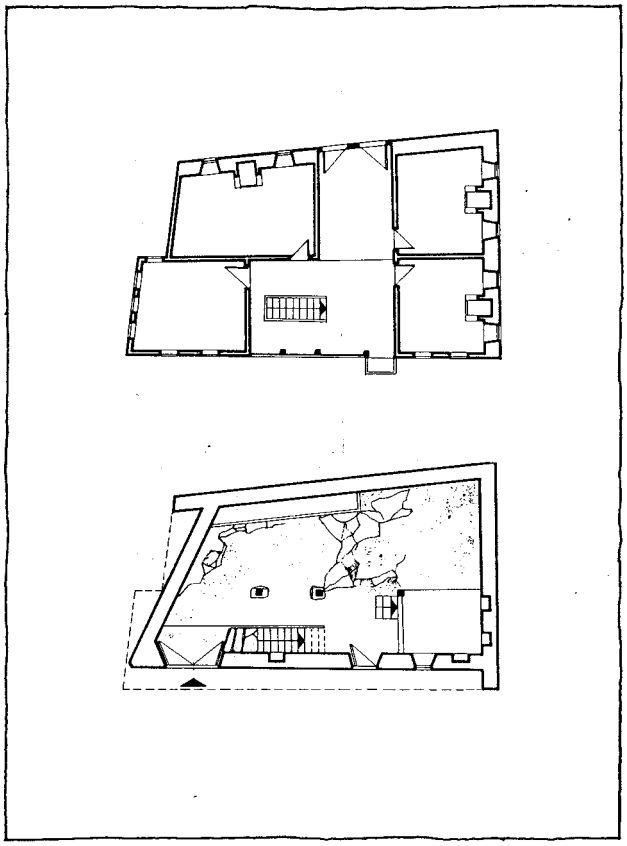


Fig. 12. House with planned future division (KB5).

which is usually built from the very beginning to house two brothers and their families. The double house GG7 (cf. p. 94 f) was bought half-ruined for the two brothers in 1922. They were both builders like their father and grandfather, who originated in Prilep in today's southern Yugoslavia (Fig. l). The old house was rebuilt as a double house with separate dwellings for each brother and his family (16). This house type can also be found in other parts of Greece (17).

In Galatista there is an interesting example of a house, KB5, which was planned from the start to be shared conveniently later (Fig. 12). The first floor has two similar main entrances from the street, leading to that part which in earlier forms was the *eyvan* of the Anatolian house (cp. Fig. 64), and to divide the first floor with a partition wall would then have been simple procedure. However, for reasons unknown, it never came to that, and the house has been left empty for years. The basement has only one double door, which shows that farm work was to have remained a joint enterprise, after the house had been shared (18).

Row houses. As will be shown later, there are indications that row houses were built deliberately when Galatista became a synoecism. This was a fast and economic way to house many families in an emergency and has parallels to the plan of Olynthos. It may also have been a way of extending the original patriarchal home sideways when there was room for it.

Building the house. Building a house was a joint enterprise involving not only the whole family but neighbours as well. It was the men's job to fetch building materials: stones from the mountain, reeds and tiles down from the Anthemous stream where there were small tile kilns. Women and children prepared the clay mortar on the site, while the house was built by local builders whose job it also was to procure well-dried timber (19). This kind of collective building was found not only in other parts of Greece (20), but in other parts of the world as well (21).

The patriarchal neighbourhood. The social structure of the extended patriarchal family as a unit for mutual support inside the village would naturally result in whole neighbourhoods being of the same kindred. This was the case not only in other parts of Greece (22), but in Turkey (23) and Iran as well (24).

In Galatista there is one characteristic example to the north of the village square consisting of the houses: AF4, AF5, KC1, KC2, KC3, KC4, KC5 and KC6. The whole kindred has the same family name: Goutsaris or Koutsaris.exept in KC5 where the wife is a Goutsaris but her husband an *esogambros*. Fig. 13 shows the neighbourhood and how all main doors were turned towards each other, and the diagram Fig. 14 the interrelation between the houses (25).

Marriage. The patriarchal family seems to have survived in Greece from the times of Homer and Hesiod, with patterns of behaviour and values intact more or less up to the present day (26). In this kind of society the father was an autocratic king who alone decided all important matters concerning his family, not least marriage. For the sake of the offspring marriage was arranged with decisive weight on the economic and social status of the bride's family, for affines were also obliged through the bond of marriage to support the family when in trouble and vice versa. If love developed between husband and wife, it was a coincidence and not something desired; it was in fact firmly believed that romantic love was an impediment to a stable marriage (27). At best they were a cooperative where the husband was senior and the wife junior (28), but more often than not she was rather more a slave at the constant beck and call of her husband (29).

Women's position. Since women had been trained to be submissive and obedient from early childhood, and there

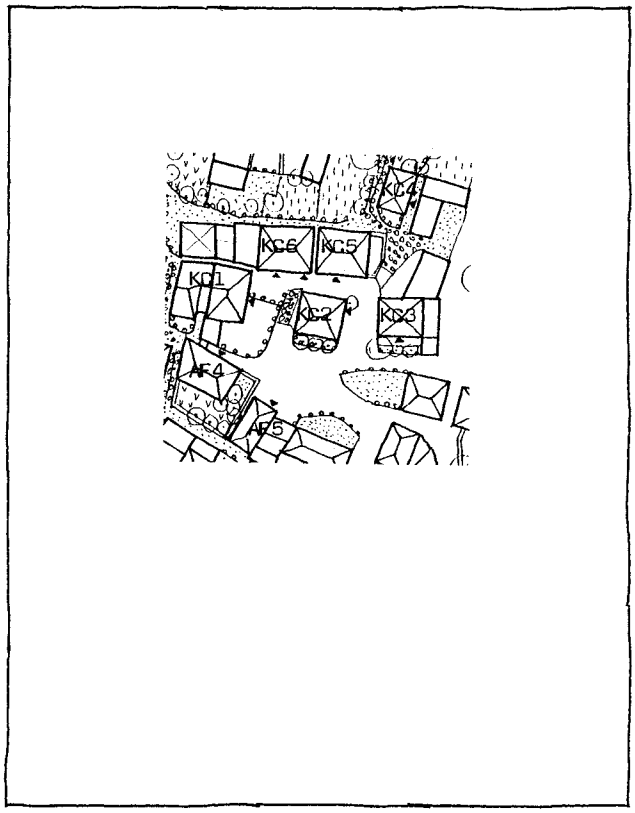


Fig. 13. The patrilocal neighbourhood of the Goutsaris family.

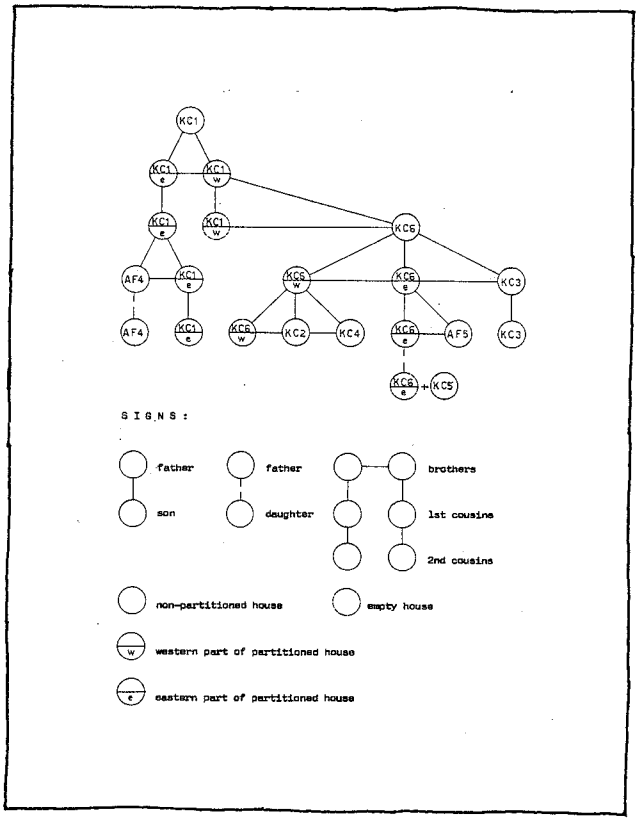


Fig. 14. The interrelationship of the Goutsaris houses.

were very strong ideas in society of what was proper for a wife and what not, most women would do as a wife, and there would not be too much friction. Another feature that served to reduce friction was that the husband was expected to spend all his spare time outside his home, and no decent wife would ever think of interfering in his freedom to spend his time as he pleased.

Women were also expected to stay as much as possible at home or in the near neighbourhood. To fetch water at the fountain was an opportunity to exchange gossip with women she would not otherwise be able to meet (30). The crucial virtue in a wife was to be chaste, and any absence from home or irregularities in the daily routine that could not be accounted for precisely, would be taken by society as a token of a secret love affair (31). It follows that virginity was of outmost importance, if a girl was to marry well (32). Women were supposed to be the weaker sex, because they cannot control their sensuality so as not to damage the coherence and interest of the family. The men of the family would take all measures to protect the honour of their womenfolk (33). Nothing was more disgraceful for a husband than to be cuckolded; that would cut his pride to the quick making him the shame of his family and the laughingstock of the whole village (34).

Being dominated and limited in movement, a woman was supposed to make friends only among women in the near neighbourhood, and not being allowed to learn letters before this century, she was bound to become a person of very limited outlook, whose opinion was never heard in important matters. It is no wonder that the relationship between husband and wife was often antagonistic and without mutual confidence (35).

However, the roles were reversed in old age. The husband would be reduced to a genial nonentity after the sons had taken over the management of the property. His opinion would be heard but kindly ignored (36). But the old grandmother would play an important role running the house, and as a mother of grown up sons she was treated with reverence (37).

Men's life: constant struggle. Continuous struggle to provide food for a growing family in a country with little arable land and a growing population resulted in hostilities among non-related villagers, all pursuing the same goal: the enlargement of the family property (38). To face such a life a man had to possess the quality of a warrior, always ready to fight for the interest of his family. Such a life would be insufferable without a sanctuary of peace and love to return to, a home as it should be ideally, and so it came about that men were left to deal with the outside world, and women to spend a protected life

at home caring for the family and its growing children. Since the family was dependent on its men for survival, it is no wonder that women were considered inferior in such a society and men superior and free to manage their own life and that of their family as they thought best (39). The little boy was consequently given a much freer upbringing than the little girl; he was left to do nearly as he liked, conforming only to family obligations (40).

The husband's privileges. One of the husband's privileges was sexual freedom. Any man was considered a fool who did not take advantage of any woman offering herself, but inside a small community it is difficult to embark on a liaison without being discovered and becoming a target of slander and even revenge, if the woman has powerful protectors (41). So a wise husband would conduct his love affairs far away from home, and a wife knew that her husband was not going to be faithful to her any longer than it would take him to find another woman. He had sexual freedom because he was supposed to conduct his affairs more intelligently than women. A man would merely pass his time making a fool of them, while he had his mind and loyalty all the time where it should be: with his family. If on the other hand he became seriously involved, the woman made a fool of him, and instead of gaining reputation for virility, he was held in contempt as a womanizer (42).

Aim of life: prestige of the family. Prestige or reputation was all-important for members of this kind of society, just as it was in ancient Greece (43).

Prestige was gained first of all through wealth, but more recently also through education. Adding to the family possessions, marrying his children well, and improving his house was the ultimate aim of any honourable head of a family (44), and anything preventing the pursuit of this aim would be evaded by cunning. To the peasant a law that did not serve the interest of his family could not possibly be a good law (45), and this is very important to keep in mind in order to understand Greek society.

One's own family would share in the honour bestowed on one of its successful members, which is why envy was rather unusual among relatives. Each member felt strongly that he belonged to a group, the family, and for that reason prestige was shared and not some solely individual possession (46).

Success outside the kin would meet with little more than envy and hostility, and reputation was not easily conferred to outsiders in a strongly competitive society, where everyone was trying to take it away from others (47).

Social control: gossip, ridicule. In order to diminish the prestige of the others, everybody would be on perpetual outlook for the slightest suspicion of potential decrease. Insatiable and often hostile curiosity involved constant spying, eavesdropping and the exchange of gossip in order to evaluate the status of others, for prestige was also founded on conforming to the rigid rules of behaviour in a closed community (48).

In Aristophanes's homeland still nothing could more thoroughly destroy a man's reputation than ridicule, and everybody took pains to avoid his family being exposed to such a disaster (49). Bragging, showing off, deceiving, lying and unjustly blaming others instead of oneself were all means of making oneself and one's family seem superior (50), and every family was firmly convinced of its own superiority (51).

Character training. In consequence of this state of matters, certain character traits had to be engrafted from early childhood. The child had to learn to keep family secrets away from outsiders, to lie if family reputation was at stake, to be cunning (*poniros*) and conscious of one's self-interest (*simpheron*) when manipulating outsiders (52). Loyalty and trust was reserved for one's family and not for outsiders (53), for that would be considered stupidity or direct betrayal of family interests (54).

The polarity of the Greek character. The child would at the same time be both spoilt and controlled (55). This kind of training seems to have contributed to the polarity, the oscillation between extremes in Greek life: "excess and moderation, chaos and order, anarchy and loyalty, brutality and tenderness, cooperation and competition, reverence and exploitation, distrust and sociability, overweening pride and fearful denial of good fortune, despair and fantastic hope, indifference and passion, cowardice and love of honour, female worthlessness and male godliness, family loyalty and disruptive selfishness, corruption and integrity, and cunning and frankness" (56).

This theme of contrasts was one of the most impressive aspects of village life in Greece, one that seems to have existed throughout Greek history. It runs through Homer's accounts of the ancient warrior's life, through Hesiod's description of rural life in ancient Greece; but also through modern accounts of the Dinaric shepherds in Yugoslavia (57) as well as of the Sarakatsani, a Greek shepherd tribe (58).

Philotimo. A portrait of the Greek character would be imperfect without an account of the phenomenon called *philotimo* (*philos* = friend, *timi* = honour). This is the

Greek male's self-image and pride and something he must possess to count among his fellows (59). It is a warrior inheritance (60). Homer's heroes were *philotimoi*, and then as now a good deal of arrogance, bragging and showing off are means of enhancing one's super-image, when in the company of non-related men, as for instance in the coffee house (61). To be *philotimos* a man must respond to family obligations, keep his word of honour, and show hospitality (62), while stealing for commercial profit is considered below the dignity of an honourable man (63).

Yet in this highly competitive society, it can often be impossible to live up to the highest standards of honour, and because it is the community, and not the individual, that is the custodian of social values, his honour is something which is granted or denied by public opinion. Consequently he is perpetually looking towards others for approval, and not inwards consulting his own conscience. A good deal of lying and deceit is employed, because what counts is to be seen as honourable, rather than actually being so (64). A man must necessarily be above blame in all actions, and any insult or dishonour demands immediate retaliation (65). This can often make him an extremely touchy person to deal with (66) and the establishment of any frank relationship outside the family impossible. So it is understandable that although power is eagerly sought, no one that will take responsibility for its mishaps (67) and one can imagine what that means in the public life of the village (68).

Humour. The above description may be a grim picture of traditional Greek village life, and it would be very unfair not to point out that it is usually pervaded by high spirits and a strong sense of humour. Irony, sarcasm and satire are Greek words still defining its content. To laugh at others is to take them down a peg or two.

Sociability and hospitality. Then there is the great sociability of the Greeks. No Greek can stand to be left alone for long without company; most activities in Greece are group activities (69). From early childhood the Greek is used to being always among many people, and it is striking that there is no word for privacy in Greek.

Hospitality is very much a matter of pride. To show lavish hospitality is a sign of prosperity and adds to the prestige of the family (70). As guests, family is preferred over friends, and friends over strangers (71). The Greek's love of talking, hearing news and joking unfolds freely when entertaining guests. In the country of Zeus Xenia, not to show hospitality is a disgrace, now as then (72).

Hierarchy. As the family was hierarchic, with each member playing his or her well defined role according to sex and age, so the whole community was built up in hierarchic order. The village president, the priest, the doctor, the teacher and the wealthy were those commanding most prestige, but this did not mean that they kept aloof from other villagers, forming a kind of village upper class (73). The wealthy residents in the *archontika*, AR1 and EA2, lived the same life as everybody else, ate the same food, and dressed in the same everyday clothes, but their clothes would be rich on festive occasions, and if you had to borrow money from them, you would very soon learn who was the superior (74).

The poor are at the bottom of the scale since a poor man is fundamentally a man of no honour, as he has failed in being a good provider for his family. Even his own relatives are ashamed of him and avoid having more than necessary to do with him (75). There are many examples in antiquity of the same conception of shame and failure connected with poverty (76).

Patronage. It was not only among relatives that a villager was trapped in a tight net of obligations. To widen the circle of influence in a hierarchic society different means would be applied. One's godfather and godmother and one's best-man would be associated with the whole family by a tie of spiritual kinship. They would be chosen in a way that best served the interests of the family and were originally chosen among distant relatives in order to strengthen the family ties for mutual benefit. Today they are usually chosen among acquaintances that are a step or two higher on the social scale, so they are more influential (77). The godparents and the best man gain prestige on their behalf the more spiritual kindred they possess; since it increases their sphere of influence, so they may become important to politicians, because they can assert their influence politically on their spiritual kindred. Obtaining favours politically is called *rousfetti*.

Till recently it was impossible for the peasant to obtain anything in the state bureaucracy without mobilizing personal acquaintances. He had to have the right means (*mesa*) in the form of influential connections, or he would meet nothing but obstruction, because a civil servant would also have to display his importance in the hierarchy by being supercilious and directly rude towards the peasant, who he considered by far his inferior (78).

Another kind of patronage could be established as a kind of friendship where each party was of mutual service to the other. The party on a higher social level might use his influence to help his friend, while the other would pay his debt back by giving gifts consisting of fresh farm products. Such friendship, based solely on the satis-

faction of self-interest on both sides, was apt to break up easily if one party felt he got too little out of it. This would often happen, sometimes without any regrets, or even with renewed antagonism emerging between them (79). That no one would seek the friendship of the poor is obvious, for they have nothing to give (80).

Neighbours. In a community with limited resources and where everybody was dependent of others for help, it was natural that friends would usually be chosen among neighbours. Several houses might form a group of friends, especially among women, since they had their working place there and they were dependent on companionship near their home. A good neighbour was always ready to help; she never quarrelled with her neighbour or gossiped about her to others and all in all avoided giving cause for offence (81). Neighbours often worked together, for instance when baking bread in one of the ovens (Fig. 15). This was also a social event and an opportunity to exchange gossip. Many tokens of affection might be interchanged: if one family had prepared a special delicacy, they would often send some for the neighbour to taste, and they would in their turn immediately send another delicacy back, ideally a bigger and better helping.

Fig. 15. Neighbours baking bread.

The coffee house. Social life at home is usually limited to seeing mainly relatives, but a man has a place where he can have informal social relationships with non-related villagers as well as kinsmen, and that is the coffee house (*kafeneio*) (82). This was the *lesche* (club) of the ancient Greeks (83) and a men's world without admission for women (Fig. 16).

Here the villager can go to exchange news, play backgammon or cards, discuss politics and village affairs, conduct business or learn who is available on the marriage market (84). Talk is often loud as everybody wants to assert himself. The aim of discussion is not to reach some agreement, but to show eloquence. To admit a wrong point of view is in fact contrary to a man's *philotimo* (85).

In order to show his father respect, a son does not go to the same kafeneio as his father (86), which is why one often sees at least three *kafeneia* in a village of some size: one for the old, one for the middle-aged and one for the young, the latter often being equipped with games like for instance billiards (87). In Galatista the *kafeneio* in AB1 was for the old, that in ACl for the middle-aged and that in AC2 for the young.

Formerly there was a *kafeneio* for the village upper class at AA2, where the village administration is situated today, and only they were admitted (88).

Fig. 16. Men at kafeneio.

The Greek peasant is not spurred by any puritan ethic that teaches him to be constantly busy (89). In winter, when there is not much farm work to see to, he will spend most of his day at the *kafeneio*, away from the petticoat government in his home. During harvest he may just go for a short time after sunset.

As a rule most men go to the *kafeneio* a few times a week. Those that go most frequently are apt also to be leaders in village organizations or they may be more well-to-do or just old men with plenty of time. The higher educated a man is, and especially his wife, the less apt he is to be a frequent visitor (90).

Village administration. Every four years political elections are held all over Greece to elect municipal or village councils. The five-member village council elects the village president among its members and he is usually chosen according to his good connections with the authorities, which is important in a country that until recently had centralized governance. His election is then either reconfirmed after two years, or someone else takes his place. The village president is paid a small allowance for the time spent on village affairs, while a secretary, who has a full-time job running the community office, is paid a *sala*ry by the community (91).

The president's job is first of all to see to tax collection for the state, and to negotiate with shepherds about letting village pastures at a favourable price. Formerly it was also he who called on inhabitants to have community works carried out (cf. p. 24), or had the upper hand with irrigation of the gardens during summer. These are some of the more important jobs, and jobs where he has the opportunity to assert personal power, patronizing friends by giving them favourable terms and obstructing those he considers his enemies, or just not friends (92). For that reason there are usually only two parties in a Greek village: those that are favoured by the president (and the party he represents), and those who are not and want a change (93).

Schools. The school to the west of Galatista (Map l) was built in 1927 (94). It houses the six-form elementary school, and until a few years ago housed the three-form middle school as well, before the latter was moved down into a new building beside the main road towards Salonica.

There is also testimony that Galatista had a school as far back as to the beginning of the 19th century, a long time before the Greek revolution (95). There was once a school where there is now a village square (*plateia*) with a plane tree, in the neighbourhood, marked F (Map 2), and one could see the foundations until quite recently. The unique house AM5 was used as a school at the beginning of this century (96).

The Church. As society was built up in a hierarchy with patrons and patronized, so divine powers also have their hierarchy inside the Orthodox faith. To the peasant it seems quite natural not to address the supreme centre of power, God himself, directly, but rather to make use of an intercessor in the shape of a saint, analogous with what he does in real life (97). Saints are supposed to be gratified the more their patronage is sought, and the richer their votives are, as this will add to their prestige (98). Above them all is the Virgin, the All Holy One (99). As the mother of Christ she has influence with her son. She is the one who will feel pity if a mother, however sinful, is praying for her sick child. The All Holy One is of course the eternal image of motherhood (100).

Many saints are obviously ancient gods in disguise. This applies to the Virgin herself who replaced Athena Parthenos, to St George with the dragon, replacing Theseus and the Minotaur, to the Prophet Elijah substituting the sun god Helios (l0l), St Demetrius who has partly substituted Demeter (l02), and so on. Almost every day of the year is named after a different saint, but they are not all equally important; some saints are considered more influential, so on their feast days no one works for fear of offending them (l03).

Saints are represented by their icons in the church and at home by the family icons that are always put up on an east wall.

A Greek feels no terror in front of God and venerates him standing upright throughout the liturgy. He may walk freely around, talking with others, his behaviour sometimes bordering on irreverence, but one should not forget that he does not understand much of what is said, as the language is either the Greek of the Bible or Byzantine Greek (104).

At least one representative of the family ought to show up at the Sunday liturgy to confirm its relationship with the divine powers. To show proper respect, one must be well dressed, and among young unmarried girls there is strong competition to be the best dressed. Even married women must dress up in order not to become a target of ridicule. When taking part in the liturgy, they do not feel like a brotherhood united in God, but rather like a group of disparate units, each with their own family-centred aim. Even in church one does not greet an enemy but ignores him, as if he does not exist (105). Only on the great church holydays like Easter Week, and the Assumption, when rivalries must be forgotten, do they all greet each other warmly (106).

The Orthodox Church is generally liberal and obviously influenced by hellenistic humanism. It rejects the belief of other churches, that man is born evil, and maintains that man is free to choose between good and evil

(107). And yet it seems that the harsh conditions of life have set aside a whole range of Christian prescriptions. One cannot forgive a kinsman that has betrayed one's trust, and one avoids the company of a kinsman who is despised for his poverty. The poor are not blessed in a Greek village. Love, mutual trust, truth and altruism are values found only inside the family and kin. Modesty, meekness and humility are values only admired in a woman (108).

To the peasant the devil is a reality always trying to usurp the power of God. Because of the devil there is a constant struggle between Christian ideals and the ideals that the prestige of the family urges its members to live up to (109).

The village priest. The village priest is usually a married man with a family to feed. His *sala*ry was very meagre until not so long ago, and to make both ends meet he usually farmed as well. This had the advantage of putting him on an equal footing with his parishioners, all the more so as he was seldom very well educated either. But as head of a family in a strongly competitive society, he was forced to see to family interests along with everybody else, obliging him to choose between God and mammon, and all too often choosing the latter. Thus, no villager expects his priest to be an example of Christian ethics; to him he is a guardian of the mysteries of the Church and the means by which the liturgy and other holy offices are enacted, and as such he commands respect (110).

Folklore. The peasant seldom believes in Paradise, or in Hell, but rather more in Hades, the Homeric abode of shades. It is still Charon who comes to take him there when his last hour has come, and even today a coin is put in the mouth of the dead to pay the ferryman (111).

Fate is another force that one cannot escape. After the birth of a child the three Fates turn up, like in antiquity, to decide the child's future, and their decision is final. Belief in fate may give a man courage to face hardships and even to risk his life, as no one dies before his hour (112).

In connection with house building, there remain a whole range of ceremonies and customs to be followed indicating that spiritual invocation when building a new house, is extremely important. This goes back to time immemorial, when it was significant to induce the genius already in possession of the site to become a guardian of the house (113). Even Homer testifies that offerings to it were necessary when laying down the foundation stone (114). So much importance is attached to these foundation ceremonies that the Greek Church has provided a special office to be read for cathedral and cottage alike (115).

When the foundations have been laid, a priest is called to lead the ceremony. A small primitive altar is erected, and while reading the text for the occasion, he blesses some water in a small bowl on the altar, before sprinkling it all over the foundations with the usual sprig of basil. The holy water is then poured into four small bottles that are built into the four corners of the house. Finally a cock is slaughtered by the craftsmen and its blood poured over the foundations. The owners throw money on the foundations for the craftsmen, who also feast on the cock after the ceremony (116).

Later when the roof has been set up, a cross with a wreath is put up on the ridge, and it is then time for merrymaking and feasting. The craftsmen are offered generous money to secure their further goodwill, but in the old village the gifts were always natural produce, since cash was scarce (117).

When the house had finally been built, a priest was called again to lead a ceremony, and the first person to enter the new house should be a young boy with both parents alive. The house was then ready to be used (118).

Village festivals. Apart from the greatest festivals of the Orthodox Church, like Easter and the Assumption, Galatista has some festivals of its own in connection with the feast days of the saints to whom its churches are dedicated.

Three central churches are dedicated to St Demetrius, St George and St Paraskevi, and the dates of their feast days all play an important role in the shepherd's calendar. St Demetrius's day on 26th October and St George's day on 23rd April mark the time of the two annual migrations of the herds to, respectively, the plains on the coasts in winter and the high mountains in summer. These two martial saints are just to the heart's delight of agonistic shepherds (119). St Paraskevi's day on 26th July marks the end of the milking season and the time of less hard work. Each celebration used to have its special character, but common to them all was that meat was consumed and wine drunk, and singing and dancing took place all day, in the open, outside the church after the liturgy.

St Demetrius's day is the most important, because he is the patron saint of Galatista. Formerly his icon used to be carried through the village in a solemn procession, but today his flower-decorated icon is just exhibited in his church. Relatives would come from near and far to take part in the festivities, but this is no longer common, unless the head of the family happens to have been named after the saint (120).

St George and St Paraskevi are celebrated at their chapels down in the valley (cf. Fig. 3) which is a peculiarity that will be discussed later in connection with the plan of the village. At St George's festival, shepherds used to donate animals from their herds to the church, which in turn presented them with a loaf of bread that had St George's stamp on it. Fresh boiled meat was served to everybody, and some animals were auctioned off and the revenue donated to the church (121).

On St Paraskevi's day most people walked down to the chapel, but the young men would decorate their horses and ride down at a gallop, gaining the admiration of everybody and the hearts of the young girls. After the liturgy goat meat would be boiled in huge cauldrons and offered to all, and singing and dancing took place under the large shady trees the whole day (122).

The most spectacular festivities are perhaps those in connection with Epiphany (Twelfth Night) and St John the Baptist on 6th and 7th January respectively. The sports club and the club for cultural activities have recently revived the old customs as a way to collect money for their projects, but also as a common diversion at a time when there is not much work in the fields.

On Twelfth Night a lot of preparation would take place: preparing one's disguise, for everybody would be wearing masks, and fitting up the two "camels" that were to "attack" each other the next day at the *plateia* after church. A liturgy was held on the Twelfth Day, and holy water, originally taken from the tap below St Paraskevi while two pigeons were set free, was brought home and sprinkled all over the house to send the *kallikantzari* (goblins) back to where they belong (123). It would then be time to watch the camels that represented each end of the village; the camel that managed to turn the other camel over was the winner for that year (124). Today they have only one camel (Fig. 17), so there is no fighting and less fun. The camels are supposed to represent the camels of the Magi, but there are some who believe that it was originally a pagan custom with two goats attacking each other.

The next day, after the liturgy of St John the Baptist, a pseudo wedding takes place with all the customs and paraphernalia of an old-fashioned wedding in Galatista, and a lot of fun is derived from the "bride" who is a young man in disguise. It all ends up at the *plateia*, where "the newly married couple" leads the dance together with their "best man" (Fig. 18).

Fig. 17. Epiphany, the "camel".

Fig. 18. St John the Baptist, "wedding procession".

The village plan

Topography. How was the topography before man took over and transformed this site to his needs? The answer

can only be hypothetical, but when one takes a look at Map 1 plus the map of the site, emphasizing contour lines, springs and spring beds, one may dare to draw a few conclusions (Fig. 19).

Spring 1 at St George and spring 2 above the village, provide Galatista with water; all the fountains have their water piped down from one of these two springs (Fig. 6 & 7). Their original flow must have followed the natural curves of the landscape as shown with a dashed line, and then continued as their flow today, down towards the Anthemous stream.

The two houses, FB7 and FC6 (Fig. 20 & 21), have an unusually high position above the street to their south which could be an indication that they were built on either side of a deep spring bed, that was filled and turned into a street. The passage between these two streets has been made possible only by the help of stairs and a ramp. Even today, when the water spills over at the modern deposit to the north east of spring 2, it follows this route on the whole.

There must also once have been a ravine to the west of the *agora* (marketplace), represented by neighbourhood A, Map 2. It is now a road passing to the west of AR3, AR2 and AR1, and a passage between API on one side, and BB1 and BB2 on the other side. Here there are again two streets crossing each other at uneven levels, suggesting that the street in front of the *archontiko* AR1 was originally a spring bed which has been filled. Its further course was probably between CF1 and CF2, and then somehow or other down to the ravine at the main road (l), but due to the soft nature of the soil, the water was absorbed before it reached the Anthemous stream.

The nucleus settlement. The area of the *agora* is characterised by its level ground, and I believe that the first settlement must have been here. The steep slope to the south, which may be due to culture strata, and the ravine to the west would have been natural boundaries and of some strategic advantage, especially if supplied with ramparts or walls. Nonetheless, fortifications were not common in Greece until after the Persian Wars in the 5th century B.C. (2). On the map (Fig. 19) is shown where there might have been fortifications in the past. Today, in any case, no visible remains have been left, however,t if they had been made from timber walls filled with earth, their traces would have disappeared long ago.

Spiritual planning. There are other interesting features that indicate that Galatista may be a very old settlement indeed. Today one is aware that ancient towns were not merely founded accordingly to geographic and strategic advantage (3), though Aristotle, from Stayira in Chalkidiki, has often been quoted for this "common sense" point of view as expressed in his *Politics* (4): "The land, upon which a polis is to be sited, should be sloping, that we must hope to find, but we should keep four considerations in mind. First and most essential the situation must be a healthy one. A slope facing east (5), with winds blowing from the direction of sunrise, gives a healthy site, rather better than the lee side of north, though this gives good weather. Next it should be well situated for carrying out all civil and military activities...."

The other factor, apart from common sense, was the divine aspect of town foundation, and it might even have been more important. Faith, life and work were a unity that could not be separated, and this is still the case among many primitive or preindustrial people (6). The site offers possibilities, but it is up to man to make use them according to his own practical and spiritual needs (7). Plato refers to this in his *Laws* (8): "Some places are subject to strange and fatal influences by reason of diverse winds and violent heat; some by reason of waters; or again from that subsistence which the earth supplies them with, which not only affects the bodies of men for good and evil, but produces similar results in them. In all such qualities those places excel in which there is divine inspiration, and in which the gods have their appointed lots, and are propitious to the dwellers in them."

It is well known that the Delphic oracle was always consulted in case of founding a new town, whether on the Greek mainland or as a colony abroad (9), and there is also historical evidence from Herodotus of what misfortunes would occur if one neglected to obtain divine sanction or to perform the usual foundation rites (10). Such an apparently rational phenomenon as orthogonal planning in antiquity is nowadays believed to be inseparable from its social religious context, and it was a way of planning known all over the world at that time (11). The Romans and Etruscans have left evidence of the procedure, which in short aimed, with the help of an augur, to repeat the order of the cosmos, when laying out the shrine (templum) and the streets in the new town. The templum of the sky was repeated with the sign ⊕ or ⊖ (12) sky. It was not always that streets could be orientated according to the axes of the world, i.e. the four points of the world, but to the Greeks contour lines were important too. Only the shrine would always be orientated east-west (13). As for Greek city foundation, important evidence from Aristotle and a certain Trisimachus has unfortunately been lost (14).

Orthogonal planning therefore, was not invented by Hippodamus and in fact this kind of planning had been common in the Ionian colonies since the 7th century

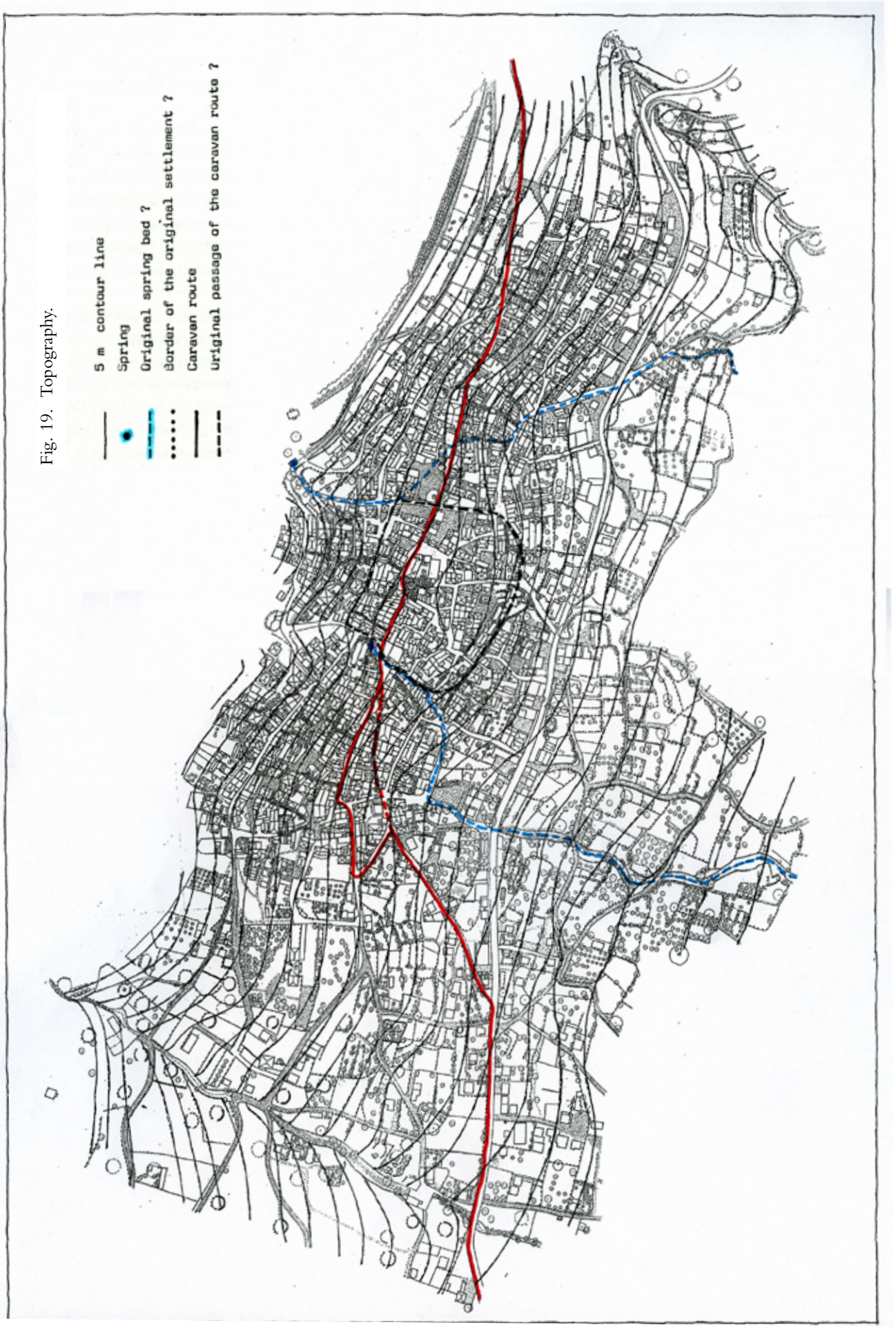


Fig. 19. Topography.

B.C. (15) while the Greek polis on the mainland had remained obstinately conservative in form (16). This may be due to the special situation among colonists: quarrels over the size of plots would only weaken the new community in strange surroundings, while the sharing out of land was made a simple procedure through the rectangular method (17).

Olynthos. Ancient Olynthos, which was situated just 20 km to the south of Galatista, is one of the few examples of Hippodamian planning on the Greek mainland (Fig. 22). As already mentioned above (cf. p. 21), it was founded as a synoecism of many small towns in Chalkidiki, and its situation on a plateau of a hill must later have been well suited to the application of orthogonal planning, a method that is unnatural and cannot be applied on a mountain slope without great cost, as will be discussed shortly.

Elements of spiritual planning in Galatista? It is impossible to verify if Galatista also had the ancient cosmological axes, called Decumenus (δωδεκάμενα?) and Cardo (χορδί?) by the Romans (18). The lane going from the *plateia* and past the water mills, DA4 and DA5, is orientated exactly north-south as Cardo should be. This street, which is very steep along the water mills, cannot serve traffic conveniently, but it did serve as an issue for the water from the fountain once in front of St Demetrius (19). The old main road through Galatista crosses the direction of this street at a right angle, but only at the *plateia*, the diversion may be due to the contour of the landscape. The total lack of further evidence from other Greek villages makes comparative study impossible, for as already mentioned in the introduction, there is no map to be had of any village before 1923, and so the question remains open.

Elements of the ancient polis and Galatista. Most of the elements from the polis of antiquity can be found in Galatista, so I will turn to the famous quotation of Pausanias in which he describes Panopeos in Phokis, not without some contempt, and makes it quite clear why he does not consider it to be a polis: "... if you can call it a polis, when it has no state (community) buildings, no training ground, no theatre and no marketplace, when it has no water running to a fountain and they live at the edge of a torrent in hovels like mountain huts" (20). Pausanias would recognize most of the important features of a polis in Galatista of today, and most of them, now as then, situated at the *agora*; there are even a few more, not mentioned by him but equally important in the polis (21): the shrine of the patron god (saint) and a heroon

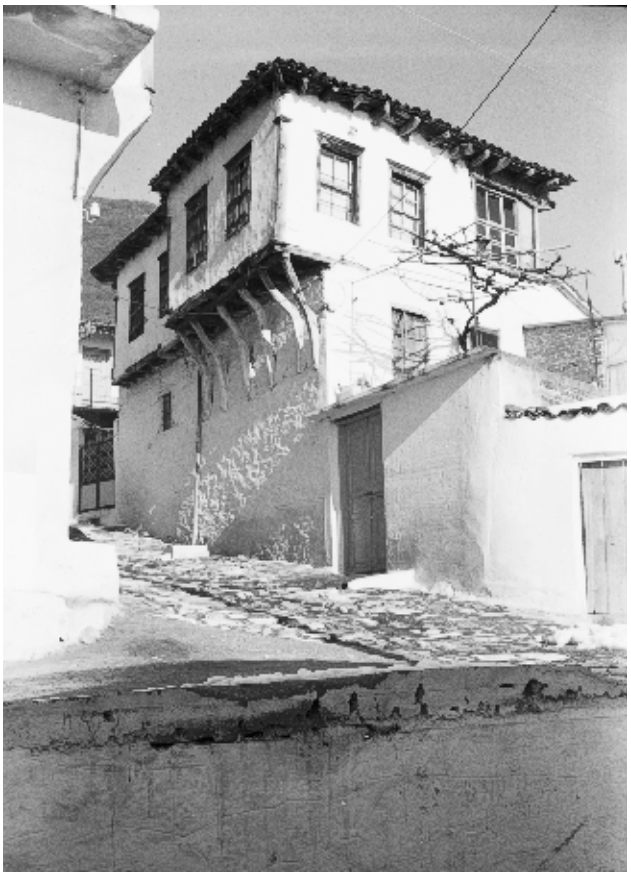


Fig. 20. Street transition at FB6.

Fig. 21. The passage at BB2.

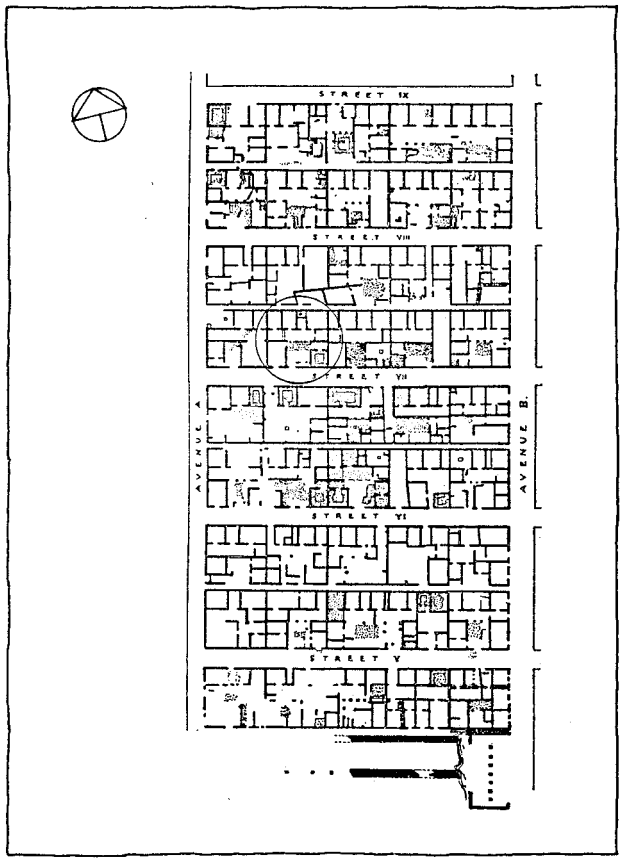


Fig. 22. Olynthos, five blocks ca. 1:1,500.

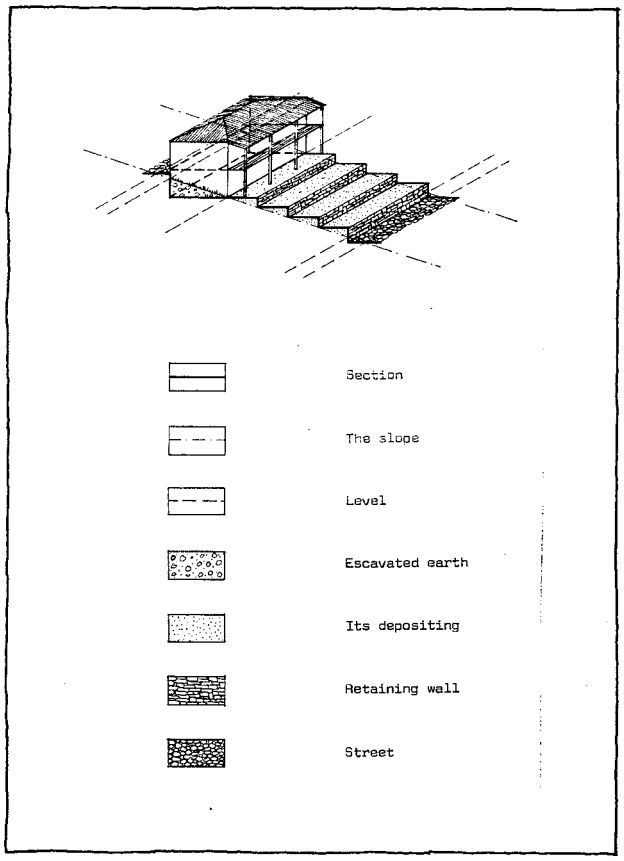


Fig. 23. Adaption of the *pastas* house to the slope.

(hero memorial) (22). Only the theatre is lacking, reminding us that Galatista is after all a village and not a polis.

Synoecism. The layout of Galatista has the characteristics of a synoecism: the nucleus settlement with its shrine of the patron saint, and peripherally around it the villages that had joined it together with the new re-inaugurated shrines of their original patron saints. The patron saint of the nucleus settlement had hereby proved his superiority, since he offered better protection, and he would then become the patron saint of the whole settlement. In antiquity the phenomenon of synoecism was common not only in Greece, but also in Asia Minor, Sicily, Italy and Etruria (23).

It has already been mentioned that Salonica became a synoecism 2300 years ago, but Athens itself became a synoecism too, during the rule of Theseus, when the small villages in Attica were joined to Athens at the same time as the new settlers still enjoyed their property back in the villages as before (24). Such synoecisms could be so powerful that they were a threat to others, and after a defeat they could be forced to split up into the original constituent villages again. This happened to Mantenea which was forced to do so by the Spartans (25).

In more recent times many small Greek towns on the Greek islands were gathered into synoecisms to meet the danger from pirates and conquering Turks (26), with examples from the mainland too (27).

Galatista has five churches that at some time in the past must have been moved from the surrounding country to join the nucleus settlement together with their villages. These five churches are St George, St Paraskevi and St John the Baptist, plus St Nicholas and Our Lady (the Assumption). A sign that the synoecism must have prospered, is that many of the churches have been enlarged.

The original churches consecrated to St George and St Paraskevi can still be found down in the valley, and they seem to be very old, much older than the corresponding churches in Galatista. Foundations of buildings can still be found in the vicinity of both chapels, and as already mentioned, people still go down to them to celebrate their feast days (Fig. 24 & 25). But where were the other churches? Since it will overstep the mark to go further into the matter here, I have included some extraordinary discoveries in the appendix for anyone interested to read (p. 140 ff). When founding a synoecism people encountered the same problem as people founding a colony in antiquity: how to share out land in a fair way so as to avoid internal controversies and the weakening of the confederation against a common enemy. I shall not try to go into detail here and try to

make an account of the original plots, the map would also be far too inaccurate for that, but I do believe that it is possible to draw some conclusions as to the planning principle.

In the centre the streets are all more or less level, and the main streets are streets leading out to the fields or the caravan route from Salonica to Mount Athos and the towns and villages in Chalkidiki.

The pastas house and the plan. In the neighbourhoods outside the centre the situation is different due to the sloping ground (Fig. 23). The basic element, that had to be fitted into the plan here too, was the so-called *pastas* house. This is a very ancient house type with Indo-European roots (28) and it was the prevalent house type in ancient Olynthos (29). The *pastas* house was not only predominant in Galatista until recently, but common in Chalkidiki (30) and Northern Greece (31), in parts of Yugoslavia (32), Bulgaria (33), Albania (34) and Asia Minor (35).

In the mountains it was usually a two-storeyed "long-house", hip-roofed when detached and with an open gallery along the main facade, which was originally the only facade (36). In Galatista the houses are always turned towards the south, due to the favourable geographic position on a south slope, and like ancient Olynthos, most of the houses have a courtyard to the south, giving admittance from the street.

Such a house type is ideally situated parallel to streets following the contour lines of the site so as to secure a clearcut horizontal intersection between facade and ground, thus leaving the facade to the south free, while the sloping ground runs into the side walls of the basement.

This is also an adjustment that secures a minimum of earthwork in times when there was no dynamite to blast away rocks, and for that reason one often sees parts of rocks left in the basement. The north facade of the first floor would also stay free of the ground horizontally, so that the living quarters on the first floor would stay free of the ground altogether. The height of the basement would vary according to the sloping ground, while earth dug out to create a level floor in the basement could be disposed of in the court so as to make it terraced (cf. Fig. 23). If the slope was very steep, a passage would be dug out behind the house in order to keep the north facade of the first floor free of the ground e.g. HB2, JB4, KF5 etc.

This adaption of the house to the slope naturally leads to an amphitheatrical positioning of the houses (Fig. 27), and is maybe further enhanced by the influence of a well-known Byzantine law that prohibited inhabitants

Fig. 24. St George's chapel.

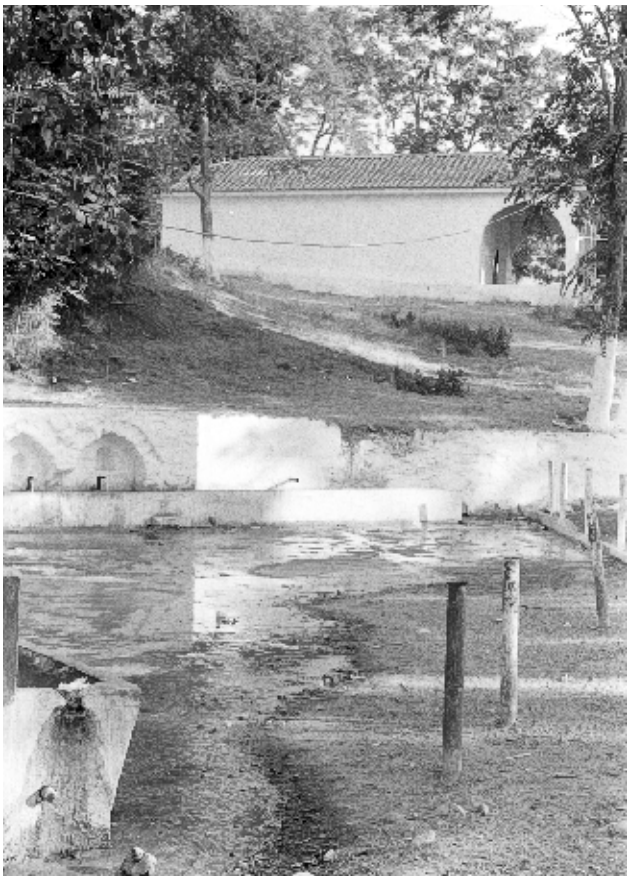


Fig. 25. St Paraskevi's chapel.

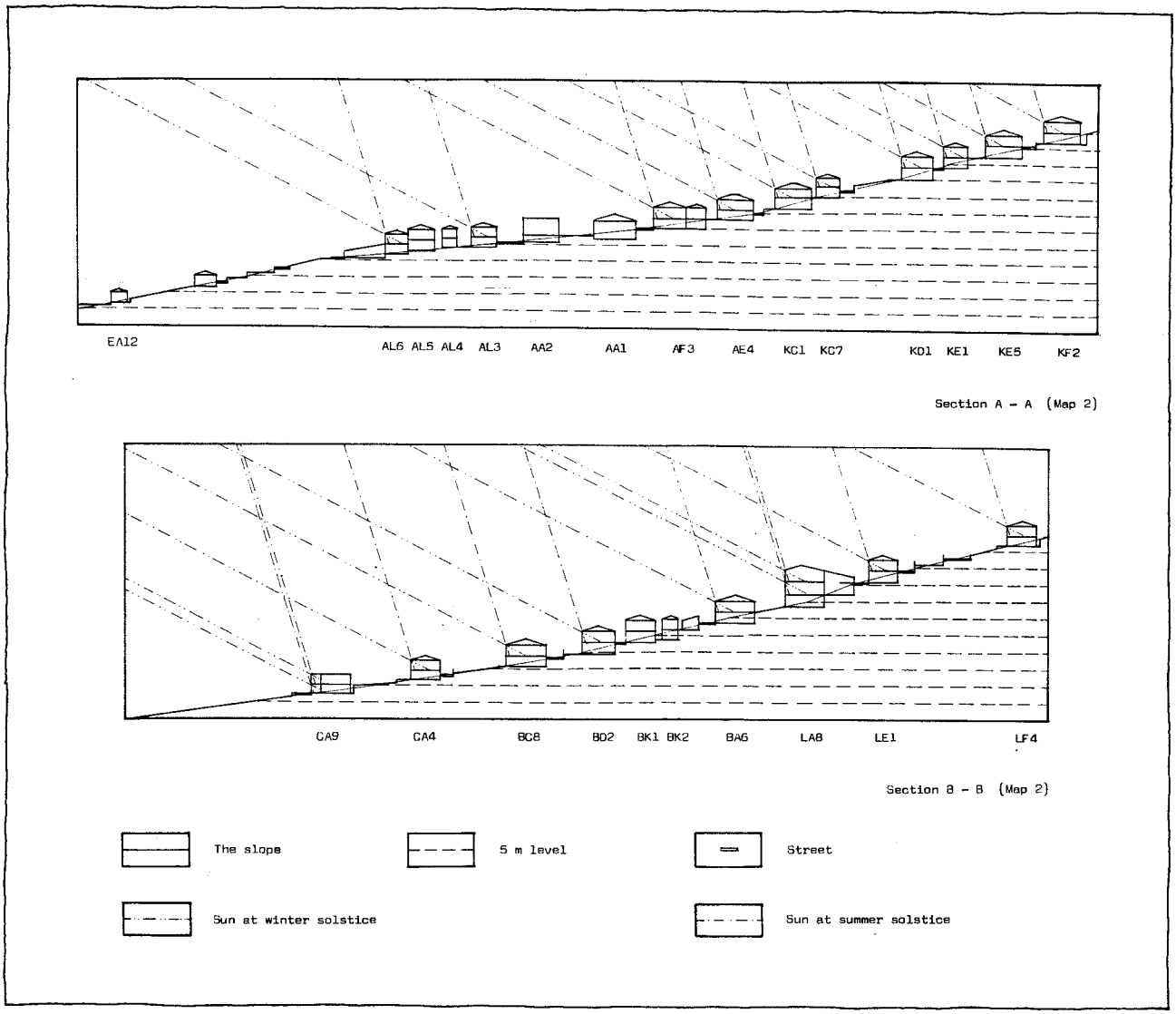


Fig. 26. Adaption of the *pastas* house to sun and view.

to build in such a way, that they took away sun and view from their neighbours (37), a rule which was also applied to other Greek villages (38), to the oriental part of Sarajevo (39) and to villages in Iran (40) and Turkey (41). One might wish that this rule was still law in Greece!

The street system. To adapt the *pastas* house rationally, there is a whole system of streets laid out in level and that give access to the houses, most of them leading to fountains and more or less directly to the *agora* (cf. Fig. 59). These level streets are interconnected by steep cross roads, usually at right angles to the contour lines. The cross roads are normally discontinued at the roads in level, maybe for reason of defence so as to make the enemy lose orientation, but also because of drainage, as will be shown later.

Here I should like to draw attention to the street coming up between the two quarters BC and BD (Map 2). It is neither a street in level, nor a typical cross road, and it turns up towards the caravan route through Galatista at a peculiar bend. To me there can be no doubt that we have to do with the original street going out to the fields and Salonica, and when the synoecism was erected and the streets laid out in level, including the street to the north of BD, this street was given a turn to make room for a row of houses: BC1, BC2 and BC3 (cf. Fig. 19). The same thing seems to have happened down by the asphalt road, when the road leading down to the fields from the mills was given a bend to leave room for a modern apartment house (42).

The streets were cobbled as in most other villages in the mountains, and a few were still left as they were, when surveying began in 1978 (cf. Map 2). The width

of the main streets varies between 3 and 6 meters in the extremity, while 3.5 m seems to be the average; this is sufficient for two loaded pack animals to pass each other conveniently. The lanes, that only give access to houses, are often not more than 2 m across: 1 man + 1 loaded pack animal.

Drainage. The rainwater that could not be absorbed by the earth between the cobbles was led away from the foundation of the houses to the middle of the street by the help of a small gradient. The streets in level were furthermore laid out in such a way that a slight inclination would send the water down the nearest cross street, going down towards roads leading out of the village and down towards one of the ravines. The cobbling of the streets and the shifting at the cross streets helped to prevent erosion: the first by absorbing the rainwater, the second by damming up its rush (Fig. 29).

If there was an occasional torrent on a summer's day, the rainwater could then be guided from the village down into the irrigation system of the gardens since it followed the same route as the surplus water from the springs, and loss of precious water could hereby be avoided.

The new main road. In 1917, under Venizelos's government, a new carriage road from Salonica to towns in Chalkidiki was constructed by Epirote master builders (43), but it was not before 1922 that the section through the gardens of Galatista was finished (44). It was a narrow road, not much more than 5 m broad, judging from the few remains left to the east of Galatista, where its curve was much too sharp for convenient traffic on the modern asphalt road, built some 15 years ago (cf. Fig. 121).

The old street system and Olynthos. If one studies Map 2, one can see that at a few places there seems to be the same street system as in Olynthos (cf. Fig. 22) - main street / back street / main street, because the conditions had been present on the spot. The quarters GJ and HJ are some characteristic examples where the Olynthian system has been employed There are many more examples, but it would be too tedious to make account of them all. What remains is that Galatista had a system of main streets and back streets, and the first were always paved while the latter were left unpaved. It was the main traffic lines, like the caravan route or streets leading out to the fields, that would decide whether a street was going to be a main street or not, and streets in level between them would then become more or less unimportant back streets and their number dependent on the distance between the two main streets.

Fig. 27. Galatista seen towards the east from EA2.

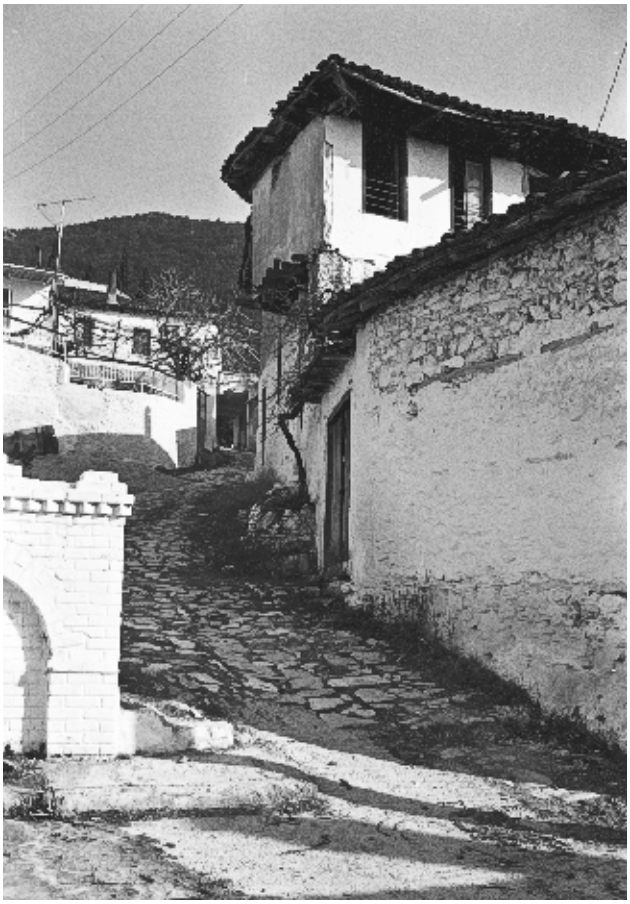


Fig. 28. Cobbled street at BB2.

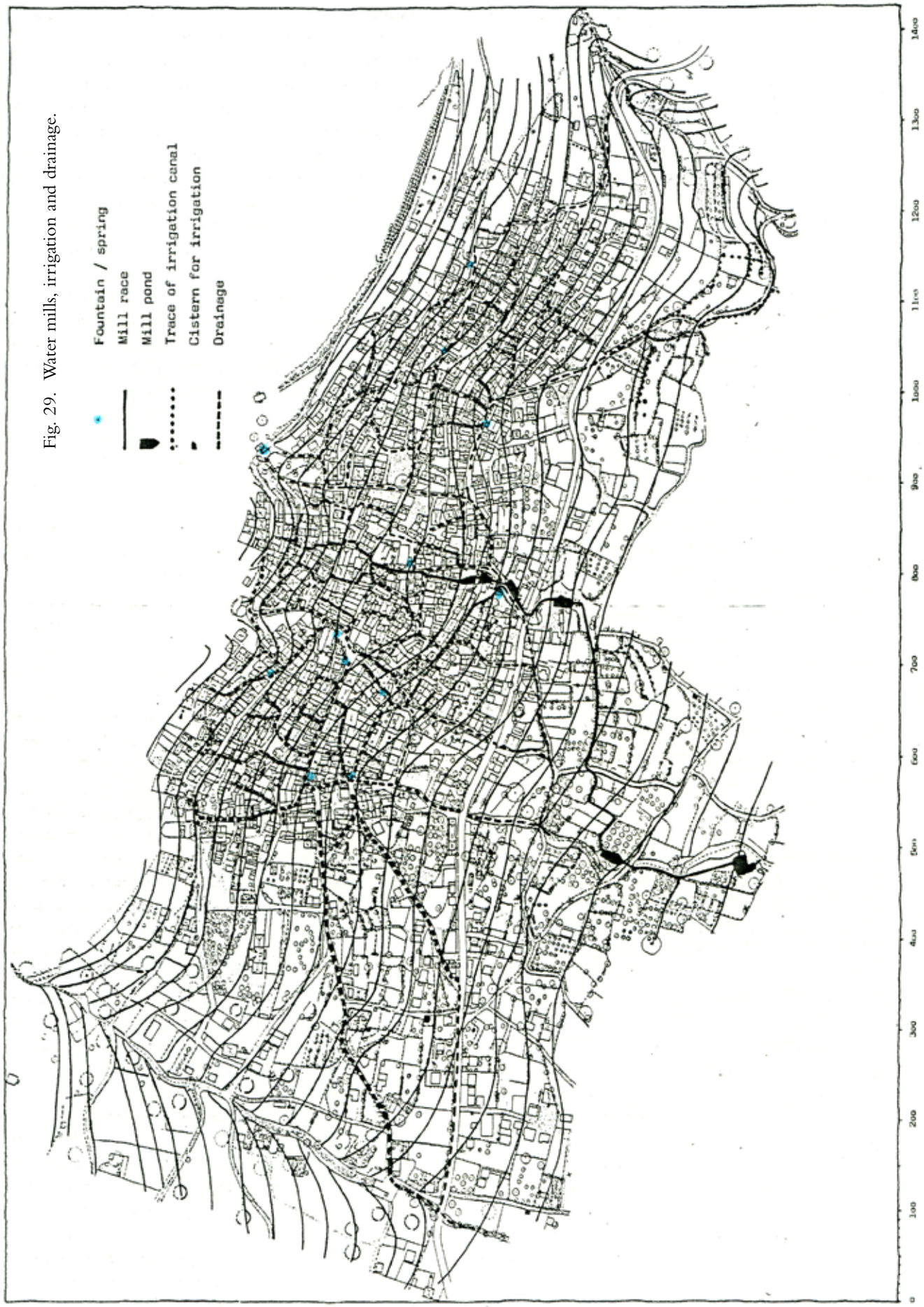


Fig. 29. Water mills, irrigation and drainage.

Deliberate planning: historic evidence from Epirus. Moving villages to more advantageous sites must have been practiced through millennia and so a certain experience of planning had been developed. Here I shall quote some extracts from an article written by a Greek architect in a Greek newspaper (45). He refers to a certain George Gazi who wrote 'Sites suitable for villages and small towns' in 1847, when it was of current interest to move the Epirote village Delvinaki, to another place for lack of sufficient water. Gazi writes: "I often consider and remember lack of water ... and with what difficulty this evil can be cured and how expensive it is ... and that the village may reach 400 or more families (i.e. 400 x 7 inhabitants = 2800) (46). Then water is certainly going to bring trouble in summertime". Gazi then goes on to mention different villages that were destroyed during the Greek revolution and rebuilt on other sites with more sufficient water supply. As for Delvinaki he suggests three sites as suited for a big village with many inhabitants.

1) "The present site if sufficient water supply can be obtained, because it is in the centre of the surrounding country and the distance to the periphery equal for all. The founders of Delvinaki were wise indeed, when they chose this site, because it has plenty of good water, a healthy climate, clean air and four well-populated neighbourhoods (*synoikia*) meet in the centre of the village, where the fountain, the *agora*, the church and the tall trees attract attention just like the ridge with the threshing floors is suitable for a castle or an acropolis" (47).

2) Gazi then continues to describe a second site, Dromopigadon or Vromopigadon, near a well, and how a new village with three neighbourhoods could be founded here: "Gatzelos's, Gatzis's and Mitsivayas's fields could be turned into one neighbourhood going straight down to the spring Dromopigadon and up to the Karakazi ridge where the threshing floors of this neighbourhood could be situated. The second neighbourhood could be made of father Mythios's field as far as to the vineyards and the road. The third neighbourhood could be established on the north slope, close to the Klokos road and as far as to the Dromopigadon road and a little further. The village centre, namely the church, schools, workshops, administration etc. can be erected on level ground in the middle of the three neighbourhoods. As for the water of Dromopigadon: it is good and sufficient for drinking water. Apart from the water from this spring, there are springs in many other places and pits, and the water from Dromopigadon could be piped down to the village centre, if they want to. Finally the river is close at hand and could supplement all shortage of water. The mill will be close at hand summer and winter...."

"There are other advantages too. Where the road from Mesarias turns into the village, there will be opportunity for trade, far better than in the former Delvinaki. Because then there will be need of inns, bakers and all the necessary workshops and professions. And I dare say that, because there is the same distance to Yannena as to Aryirokastro, that is to say, if you leave Yannena in the morning, you will reach Dromopigadon in the evening and the same applies to Aryirokastro and Delvinon, from where you will also reach Dromopigadon in the evening. So this village may in time become an important market town. But besides advantages there are also disadvantages: it is a little remote, as for health it will be worse, and there are no stones for building in the vicinity, so slate for roofing must be brought from afar. Still it is easy to have tiles made on the spot, because the clay has been tested and found fit for burning." The third possibility is not mentioned in the article, and I can add: Delvinaki has remained where it was.

Galatista and the evidence from Epirus. To return to Galatista, nearly all the same elements mentioned under the second possibility, are present here too:

The centre on level ground in the middle of neighbourhoods, with the church AA1, the village administration AA2 (48) and the different workshops of traditional kinds: two forges AB3 and AD6 and until recently a tailor in AD8. The water has also been piped down to a fountain at the *plateia*, originally in front of the church (49), and here the surplus water was used as motion power for a succession of water mills DA4, DA5 etc. The threshing floors were at the outskirts of the neighbourhoods.

Just like the site in Epirus, Galatista had an important road going through it, thus giving opportunity for trade. There were three inns: one at the *plateia* AC1 and one at St George AR3(50) and a third in FD4, where pack animals could also be stabled (51). In AD3 there was formerly an old-fashioned bakery and in AC3 a general store. Most of the shops at the *agora* and along the former caravan route are empty today (cf. Fig. 124).

As for health, Galatista has, as already mentioned, a fine temperate climate. All building materials could be had in the near vicinity, except slate for roofing, and for that reason there were tile kilns down at the Anthemous stream producing tile for roofing and traditional chimneys (52).

Water supply and plan, fountain houses. At what time water was piped down to the different neighbourhoods is difficult to tell. Only very few fountain houses have any date left visible at all, and then they are usually from this century, like the fountain at HE1. Such fountains are

Fig. 30. The wash basins at St George.

Fig. 31. The fountain at EC2.

often donations from native benefactors (53), and one can see their name and year of erection engraved on a slab above the water head.

In Galatista there are many fountain houses. I have already mentioned that the fountain at the *plateia* originally was in front of the church. It was decorated with statues, but everything was unfortunately destroyed and no trace left, when the new *plateia* was made by earth packing at the same time as the administration building was built (54). The fountain house seen today is a modern structure of concrete.

The most impressive is maybe the fountain at St George with its finely elaborated marble facade from 1914 (cf. Fig. 6). At the other side of the main entrance to the church are the wash basins used to wash clothes and blankets until quite recently, when water was not yet laid on (Fig. 30).

The fountain house at EC2 is decorated with the characteristic Ottoman ogee arch, which indicates that it must have been built some time after the Turkish occupation. At the north east corner of EC3, there is a low basin which can be plugged and used for washing carpets, that especially takes place in the middle of May, when all carpets are washed to be stored away during summer (Fig. 31). This kind of basin was sometimes fitted to a fountain house in ancient Greece (55).

Most of the fountain houses have by now been smothered by cement - I suppose they are considered less primitive that way.

How water was piped down and where, is not known as no visible marks are left. Still I wonder if one misses the mark when drawing parallels to other places. The only other village where I have seen visible trace of the piping system, is in the old village Ambelakia near the Tempe valley. There in the cobbled lane, passing the famous Schwarz's *archontiko*, I have seen terracotta pipes exposed in the surface for lack of maintenance of the pavement (56). Such pipes were also used in Dion (the Delphi of ancient Macedonia) and can be seen at the museum there, and they were also used in ancient Olynthos (57). The pipes do not fit exactly into each other, thus making it possible to lay them out in curbs too (Fig. 32).

Water and trade. After water had served household tasks, it still had other tasks. After the wine pressing in September/October the three ouzo distilleries CA10, DA6 and EC4 will be continually in use turning the residue of the pressed grapes into ouzo (tsipouro). The cold water from the fountains is used for condensation of the alcohol vapours. The ouzo distillery EC4 (Fig. 33) is still working in the old way, making use of water coming

through an open canal directly from the fountain at EC2. The ouzo distilleries are owned by the community and are hired for so and so many twenty-four hours.

Another trade always connected with water is oil pressing. DA7 was once an oil press worked by mules, but it is completely ruined today. Quantities of water were used to make the oil run more easily through the press sacks of woven goat hair (58).

The saddle maker at GA1 would also need a lot of water, especially for tanning.

The water mills. The largest enterprise of all connected with water was the running of six splash mills, one after the other, from the first below the Byzantine tower (Fig. 9), till the last down among the gardens, where the water was finally left to run down into the ravine (Fig. 29). These mills were in use until the forties, and there were others at Panikova (59), and down at the Anthemous stream (Fig. 3) (60).

Having enough water and sufficient inclination to run splash mills was considered a rare and great benefit. Only few villages could boast of possessing such mills, and until quite recently it was common practice to grind one's daily portion of flour in a hand mill in remote areas of Macedonia and Epirus (61). Such hand mills have been known since prehistoric times, and a fine specimen can be seen in the museum in Dion. Strabo is among the first to mention water mills, when he refers to King Mithridates in Asia Minor, who owned such mills in the second century B.C. (62).

The mills in Galatista seem to be very old indeed. When excavating to make a passage in front of the Byzantine tower, it looked as if the tower had been built on top of some part of the foundation of the first mill pond, which was made smaller on that occasion. This may be an indication that the mill pond is from before the 10th century A.D. (cf. p. 22), but further excavations will have to be carried out to prove it (63).

Today the thick layer of tufa at the sides of the first pond is in itself proof of great age (Fig. 34). The builders in Galatista used to cut out stones of tufa and use them for light outer partition walls when walling up the open gallery, as will be shown later (64). The apsides and cornices of the churches are also of tufa, which may have been taken from the mill ponds. The apsis of St Nicholas is especially finely elaborated with ogee arches (Fig. 35).

When water was needed for the mills, it would be carried off from its usual course from the fountain at the plateia and down the south street. First it would run down along the first diesel-driven mill in Galatista AM12, then along the Byzantine tower, where water once must have been very useful indeed in time of siege.

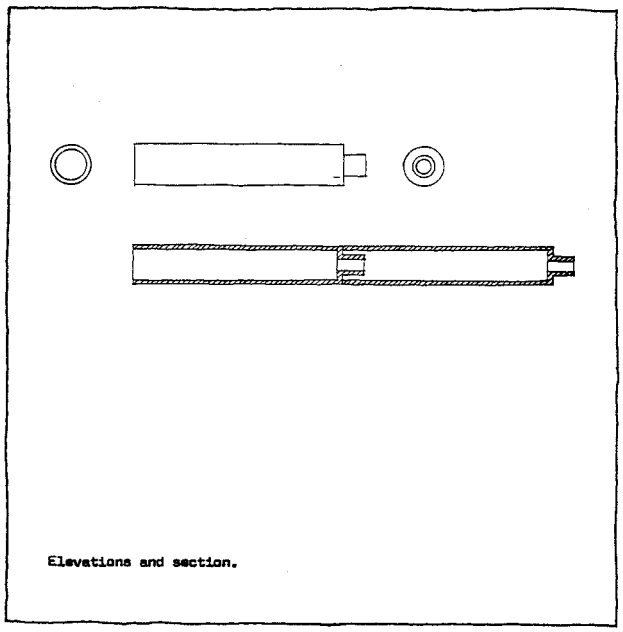


Fig. 32. Water pipes from Dion ca. 1:20.

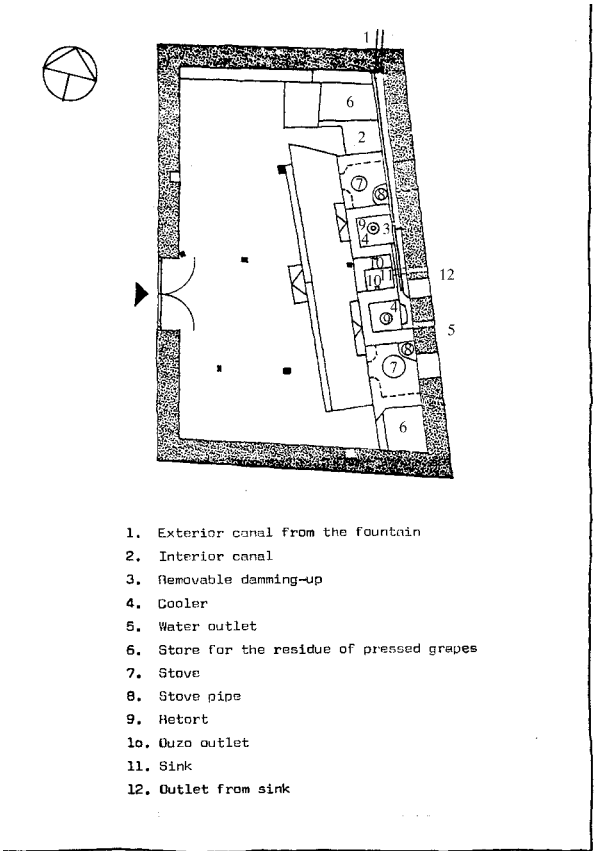


Fig. 33. Ouzo distillery EC4 ca.1:200.

Fig. 34. Tufa at the mill pond.

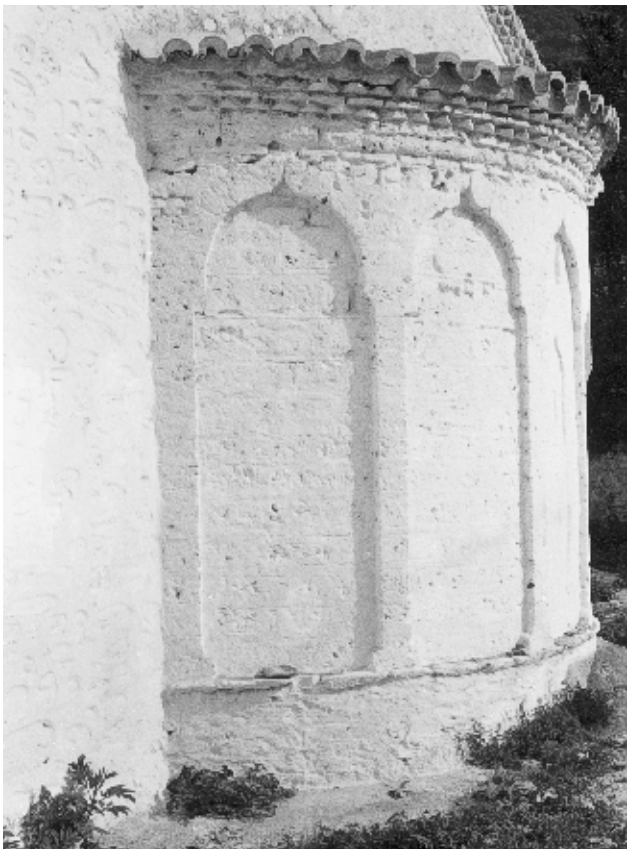


Fig. 35. The apsis of St Nicholas.

The mill race continued into the first mill pond and through the first splash mill on to the next pond (cf. Fig 29). When it had left the second splash mill (cf. Fig. 9), the issue could then either be left to run down the usual course of the issue from the fountain, or be directed into any of the following mill ponds. The last of the splash mills has the year of erection 1898 engraved on a small slab.

The splash mill would start working when the jet of water, coming from the mill pond above through a funnel, hit the flat vanes of the mill wheel on the slant. The force of the water could be regulated by altering the width of the funnel at the outlet (65).

Irrigation. Water could be used in another very important way too. Just like modern hydroelectric power plants in Greece, the water could also here be directed into an irrigation system, so not a drop of water was wasted after having served as motion power.

To retain water on a mountain slope, but also to prevent erosion by torrential rain, the enormous work of building retaining walls of dry masonry had to be carried out, and virgin soil had to be brought from afar to cover the terraces (66). The main irrigation canals were usually at the foot of such retaining walls, with a path going alongside. The water would be collected in cisterns, and there were very specific rules so each house would get the same quantity of water, whether the garden was big or small, or whether there were many family members to feed or not. In recent times it was also the task of the justice of the peace in Vasilika to see to the water being shared fairly (67).

Threshing floors. The threshing floors (*alonia*) were situated to the west and east of Galatista (Map 1). They are of great beauty in the open landscape. The origin of this kind of threshing floor is lost in antiquity, but the most interesting thing is that they are thought to be the ancestor of the Greek amphitheatre. Fertility rites are supposed to have taken place on them to thank the gods for the harvest and if it was situated on a slope, a fine view had already been secured from the *theatron* (place for watching) (Fig. 36) (68). Until recently they were considered holy, and it was blasphemy to damage them, whether they were privately owned or belonged to the community (69). In mountainous areas they would often serve as a dancing floor too, when it was the only place with level ground (70).

The *aloni*, marked with an asterisk on Map 1, has been surveyed (Fig. 37). It was built in 1943 by the old builder, Tasos Mastrokostas, for to build *alonia* and retaining walls was also a task for the local builder. A circle was first

drawn on the slope, and the retaining walls built along its periphery. Then it was filled with earth and the surface covered with rammed clay. The final plan became consequently elliptical due to the projection of the circle from the slope.

Beside the *aloni* is a rare example of a primitive shelter used by the peasant, when he stayed day and night beside his corn waiting for the right wind to turn up, so the winnowing could begin. A threshing sledge of oak with teeth of flint was tied behind a horse or a mule, and the peasant stood on it while it was pulled around on the corn in the *aloni*. In this way chaff was separated from kernels before winnowing (71).

Synopsis. Before finishing this section about the village plan, I should like to sum up the most important elements of its construction.

The site was chosen near springs with perennial water supply, on unfertile rocky ground too steep for terracing, but close to areas that are not so terraced land for gardens could be laid out nearby and be irrigated from the surplus water from the springs.

Streets were preferably laid out in level, so the nucleus house type, the *pastas* house, could be fitted advantageously to the slope. The gradient of the slope would then be decisive for the height of the basement, while the living-quarters on the first floor would be free of the ground, and sunshine and view ensured through legislation.

Streets in level were interconnected with cross roads going usually at right angles to the contour lines to obtain simple drainage. To avoid erosion, the rainwater was partly absorbed by earth between the cobbles and the rush of the water diminished by shifting the cross roads, so they formed T-crosses with those in level (72).

The different neighbourhoods of the synoecism would be situated close to the nucleus settlement, to roads leading back to their fields and near water fountains, though it had been necessary to pipe water down to some of them (St Paraskevi, St Nicholas and Our lady). The desire for a short distance to fountains brought about the density of the built-up area, but it was not the only factor. Economy and better protection made row houses, built along already existing roads or along new in level, an ideal and quick solution in an emergency, but this will be further discussed in the next chapter. It remains anyway a solution that is strangely akin to that of ancient Olynthos.

Water, so precious in an arid country, was made the most of. After having served man and his livestock, it could be used as motion power for a row of splash mills and like the rainwater, the issue would either end up in

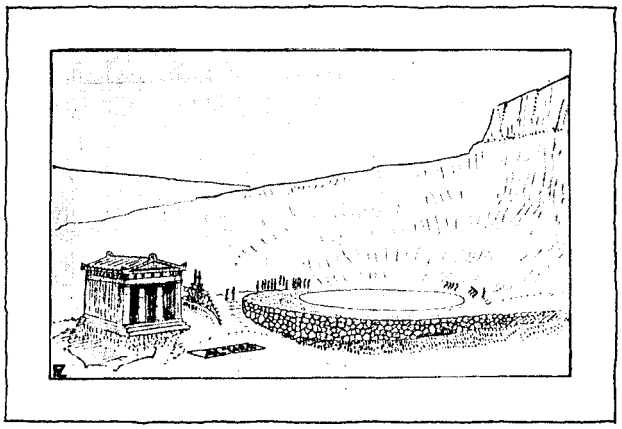


Fig. 36. Primitive theatre of Dionysus in Athens.

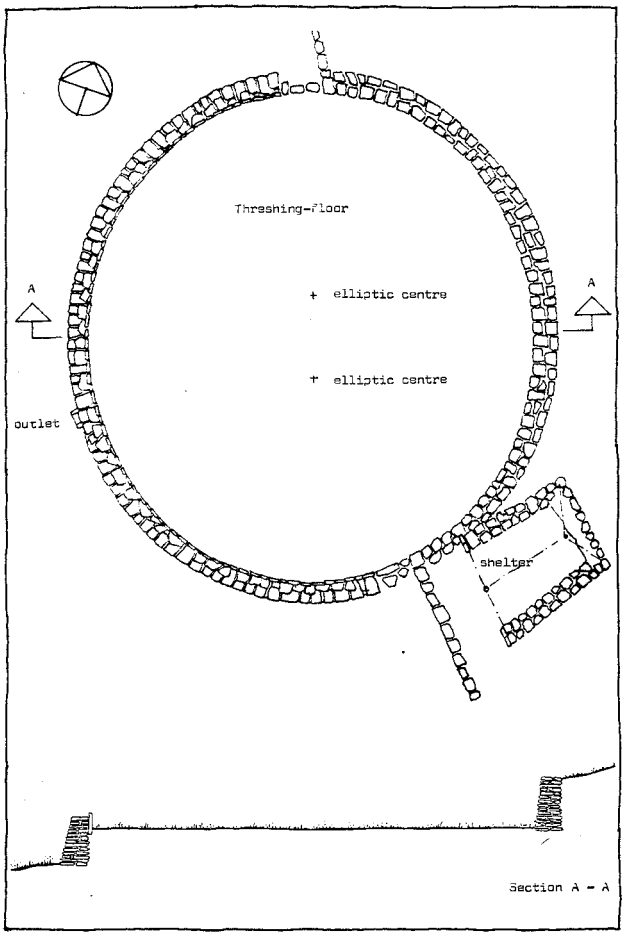


Fig. 37. Threshing-floor from Galatista ca. 1:200.

one of the ravines, or be guided into the irrigation system in summer.

A number of trades, making extensive use of water, were situated near fountains, like the oil press, the ouzo distilleries and the saddler.

Protection against attack was another consideration. The two-storeyed *pastas* house, with only one facade and a courtyard in front, was the original unit (73), well protected against attack from behind, and the density of buildings served collective defence better than scattering would have done. It was furthermore common that row houses had emergency doors between them in the basement (74).

Cross roads were, as already mentioned, rarely continuous, but shifting at main roads or streets in level, which would in case of attack help to disorientate an enemy, while the Byzantine tower and the maquis above the village could serve as recess.

Social requirements are first of all expressed in the *plateia* and its many functions, and it is hardly ever absent in a Greek village. The *plateia* can serve many kinds of purpose: meeting place, usually in the *kafeneia*, dancing place, market place, and as it is usually also beside the church of the patron saint, the *plateia* also plays a prominent role in the religious life of the community. Since an important caravan route passed through the *plateia*, many shops and trades would be preferably situated here or in its vicinity.

Another important social element in the village was the patrilocal neighbourhood, where the extended patriarchal family lived and worked collectively, and it was in order to keep the growing patriarchal family united, that the development of the *pastas* house has come about to a great extent, but that will be discussed in detail in the next section.

Spiritual planning is something more difficult to grasp in our pragmatic age, but at one time this was of major importance. In Appendix I have included a hypothesis, that gives an account of rules which may have been applied to Galatista (cf. p. 140 ff).

It should by now be obvious, that a whole range of elements contributed to the make-up of the village plan, and the term "self-grown settlement" is out of place here: on the contrary, one cannot but admire the ingenuity by which a community with limited resources made the most of the potentialities inherent in the site, in order to realize their idea of the best life possible.

The evolution of the pastas house in Galatista

Historical evidence in antiquity. As already mentioned, the *pastas* house represents a very early house type, well-known in antiquity (1). Xenophon lets his Socrates philosophise on its fitness for the Greek climate in an often quoted passage (2):

"When anyone builds himself a house must he not see to it, that it be as pleasant as possible?" We agreed.

"And pleasant is to be cool in summer but warm in winter?" and after our assent he proceeded again:

"In those houses then that face towards the south, the winter sun shines down in the *pastades*, while in summer, passing high above our heads and over our roofs, it throws them in shadow. To obtain this result, therefore, the part of the house facing south must be built higher in order that the winter sun should not be excluded, whereas the part facing north should be built lower that the cold winds may not strike it."

In other words, a *pastas* house built into a south slope with less facade to the north and with pastades of sufficient height to leave the winter sun free access must have been considered ideal for the Greek climate, and its survival down through the ages justifies the wisdom of the ancients.

Olynthos. In ancient Olynthos, there was a rather crude representative of the type, built from sundried bricks and wood that have left no trace, only the rubble foundations can still be seen (3). The house in street VII (cf. p. 40) is supposed to have been a house of the *pastas* type to the north, and it formed a row with the other *pastas* houses at the same side of the street (4). Comparing this plan (Fig. 38) to plans of houses in Galatista, one realizes that there exists strong affinity: KClw (p. 60 ff) was originally part of a two-storeyed longhouse of rubble work and with an open wooden *pastas* in two storeys in front. However, few houses are as long as the Olynthian house, BB2 being one of the few (p. 79 ff). Common to all is that outbuildings have only one storey, thus following the wise advice of ancient writers.

Leukadia. In Macedonia about half a century later, there is a more refined image of what a *pastas* house might have looked like when built for the wealthy. In 1954 the Great Tomb of Leukadia near Naoussa was excavated, and its facade represents what is now believed to be a reproduction, in relief and painting, of a distinguished two-storeyed Hellenistic house with a *pastas* in front (5) (Fig. 39). The house is typologically a megaron house with the ridge at right angle, and not parallel to the main facade, which is the case of the typical *pastas* house. Here the "*pastas*" has projecting "wings" to the sides, Doric "columns" at the basement and Ionian "columns" on a "balustrade", decorated with a painted frieze, on the first floor, where a row of double-sashed "windows" of exquisite "joinery" can be seen. The "*pastas*" is roofed by the main roof protruding to the front of the "*pastas*", and it has been provided with a "pediment".

Byzantium. The cells of the Byzantine and post-Byzantine monasteries were usually built into constructions of the *pastas* type (6). On Mount Athos there are some staggering examples of multi-storeyed open galleries protruding high above abysses. In Constantinople and other Byzantine towns, where most houses were two-storeyed,, it was normal to provide the facade facing the yard with an open gallery to throw shadow in summertime (7). As for the peasant houses, very little is known today (8).

Other parts of the world. In Scandinavia the *pastas* house has a relative in the so-called *loftbod* (loft house) which was a common house type in the Middle Ages, constructed so mainly for reason of defence (9). It was a two-storeyed longhouse and the *pastas*, here called *svalegang* (cooling gallery), was here a more or less open gallery on the first floor to which a ladder gave admittance from the ground. Like the *pastas*, the *svalegang* gave access to all the rooms on the first floor (10) (Fig. 40).

In other parts of the world like Japan, Aden and Zanzibar that have a similar climate to the Greek, traditional house types with open galleries have also been developed to serve the same end: leaving the winter sun free access to the house, while letting the hot summer sun throw shadow on the facades (11).

Whether the *pastas* house has survived continuously through millennia up to our time, is a question that has been discussed in the past (12). Still it remains a house type eminently fit for the climate on the Greek mainland, and as we shall see, immensely adaptable to the varying requirements of changing times.

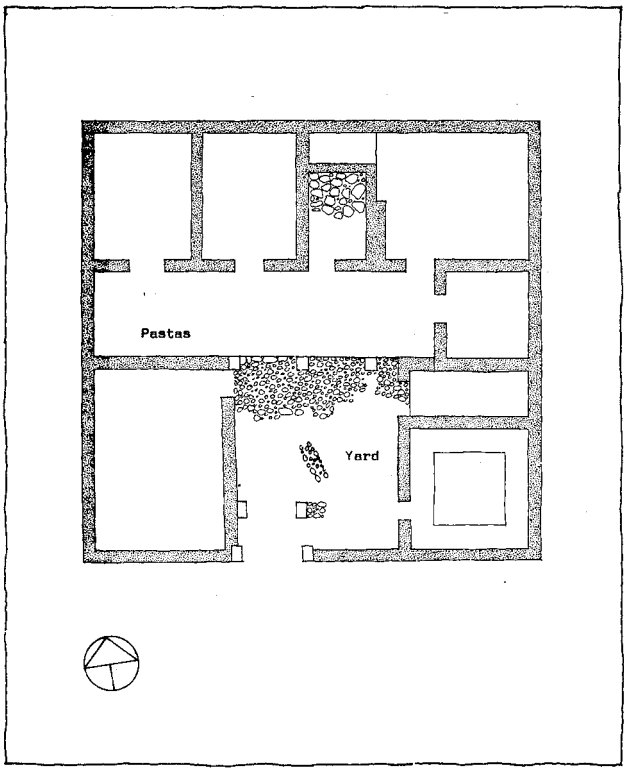


Fig. 38. Plan of house in Olynthos ca. 1:300.

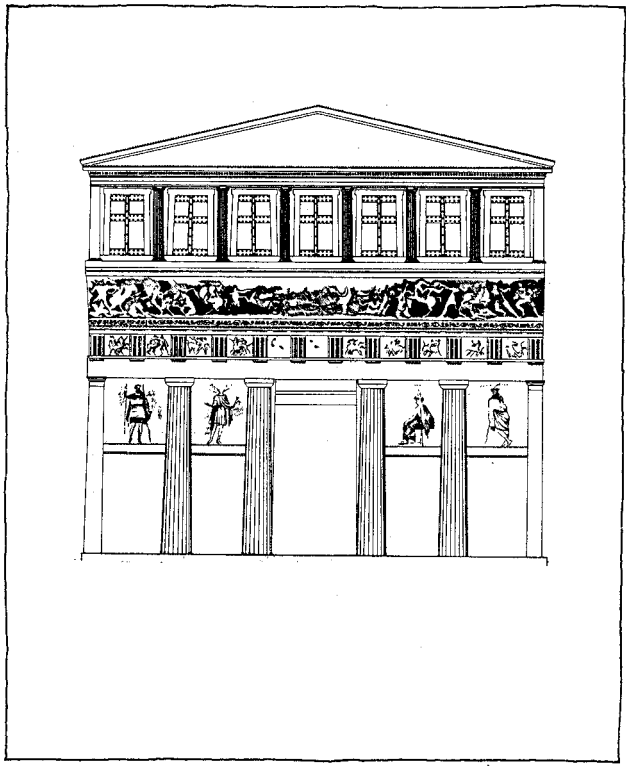


Fig. 39. Facade of the Great Tomb ca. 1:150.

Early forms in Galatista. On collecting data from the ca. 507 houses, containing about 719 dwellings, inside the old village (Map 2), it soon became apparent that the majority of the houses represents further development of a nucleus *pastas* house, with stables and store rooms in the basement, while the living-quarters are on the first floor as in similar houses elsewhere in Greece (13). The open gallery served as a protected outdoor room: in summer this would be a cool place for sleeping during the night, agricultural products like onions, garlic, corn cobs etc. could be dried here, and it was also here that wool was prepared and woven, an important part of the agricultural economy in mountainous areas with many sheep and goats (14).

The original *pastas* house had only one facade, if possible facing south, and the only entrance was also situated here. This disposition helped to protect the family against assault (15).

Type 1. The nucleus type in other mountainous areas in Greece (16) was a two-storeyed longhouse, built of rubble and with a narrow open wooden gallery, usually running the full length of the facade, and with a roof made simply by an extension of the main roof (17). The rooms on the first floor all turned towards the open gallery that gave direct admittance to them (Fig. 42).

Type 2. Further development occurred when the roof was constructed in such a way that the columns of the open gallery became supporters of the roof, which by now had become a more or less symmetrical hip roof (18).

Type 3. Finally the house became so deep that the ridge was supported by the longitudinal front wall of rubble work, and the roof was consequently now always symmetrical (19). This type, as we shall see, seems to have been born of the need to make rooms of ample size on the open gallery.

All three types may have side wings, but on Fig. 42 they are shown without, and none of them can be found anymore in their original form in Galatista, only as reminiscences in houses that have undergone rebuilding. Type 1 and 2, which seem to have been the house type in ancient Olynthos and until recently a very common house type in Chalkidiki (20), is represented by the C. Goutsaris house KClw (p. 60 ff). Here the original two-storeyed stone house is only partly left as it was: the open gallery of today belongs to a renovation, and the roof has been altered, so it is impossible to tell which of the two types it once belonged to.

Houses like AJ2, AD5, EA3 (Fig. 43), GH2e (Fig. 45), JC1 and LA8 still bear unmistakable traces of the open

gallery that once covered the whole facade, but at some time the basement has been enlarged by walling it up with rubble walls, yet leaving the columns of the gallery to be seen in the facade (21). Other houses, like HA3, have the columns hidden inside the rubble wall.

Type 4. What had happened to the other houses? Well, further development into yet another type had occurred, and this is by far the most prevalent in Galatista. The basement had by now absorbed the lower part of the open gallery from the very beginning and the roof was now carried by a longitudinal half-timber wall. The position of the stairs remained as always in the front part of the house. The open gallery on the first floor is sometimes called the *doxatis* (22) and sometimes the *chayati* (23) and more often than not it is fitted out with side wings, depending on the position of the house in a row or not, the desire for unimpeded views and the direction of prevailing winds. Like type 3 this type was apparently also created to make room for expansion of the dwelling on the open gallery.

Construction: rubble walls. All types are fundamentally constructed the same way: the outer walls, except the south facade of the first floor, type 4, are random rubble walls made of undressed field stones and stones from the mountain, and only the cornerstones have somehow been dressed (24). The rubble is held together by red clay mortar and the crevices have been filled with small slabs of stone or tile. The foundations of the walls usually go 1 m down below the surface, but they can be up to 4 m deep in order to rest on firm ground (25), or the walls are built directly on the rocky ground, and in this case one can see the rocky ground in the basement, as there was no dynamite to blast them away, during the Turkish occupation.

Tie layers run horizontally at distances varying between ca. 80 cm to 1 m and starting at about 25 cm above the ground. They consist of parallel laths, one usually of oak running along the outer wall, and another running along the inner wall often consisting of less resistant wood, e.g. chestnut, and they are nailed together at certain intervals (26) (Fig. 41). Their presence sometimes adds interest to the facade, especially when applied by master builders, as we shall see later. The tie layers also seem to prevent cracks during earthquakes, and in fact the only house suffering damage during the strong earthquake in 1978 was AL5. It represents what is left of a bigger house, that was cut through to make room for a new house AL9. At that time the tie layers of AL5 had been cut through and the north west corner consequently weakened.

Door and window openings seem originally to have

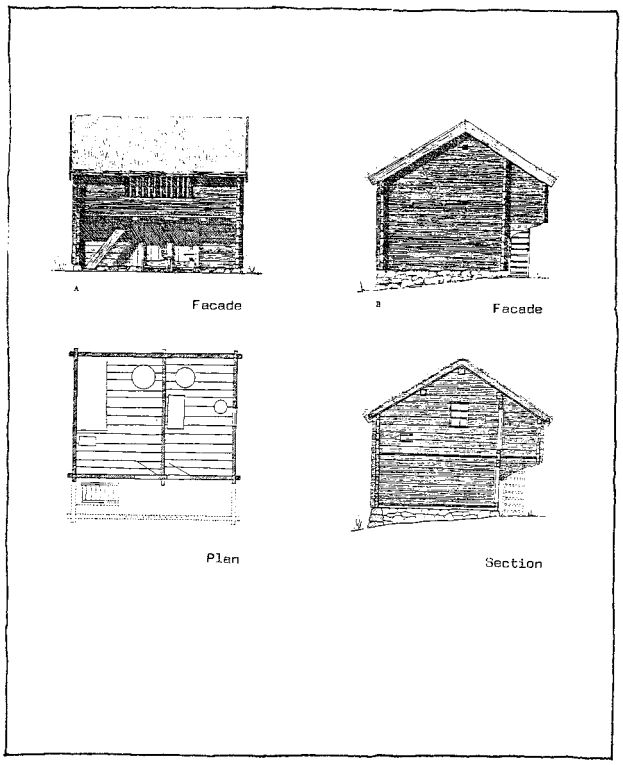


Fig. 40. Scandinavian *loftbod* ca. 1:150.

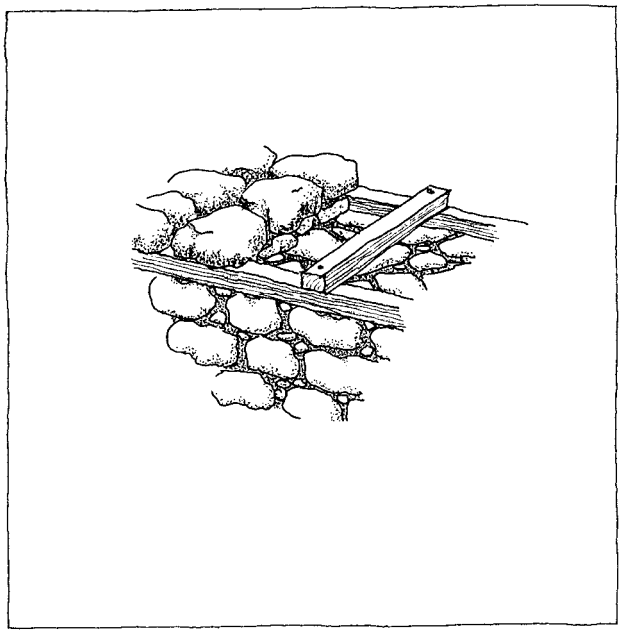


Fig. 41. Detail of tie layer.

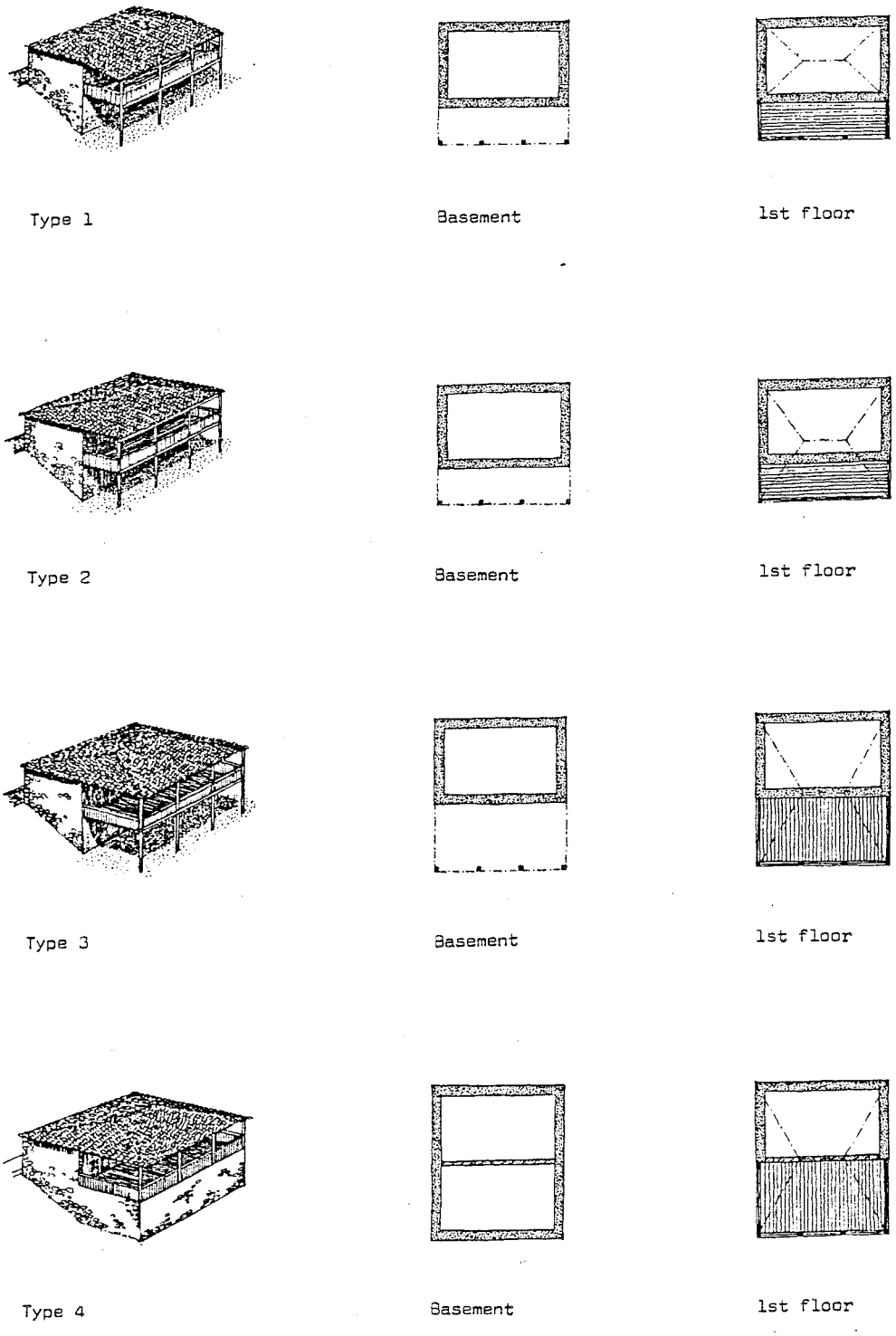


Fig. 42. Hypothetical evolution of the *pastas* houses.

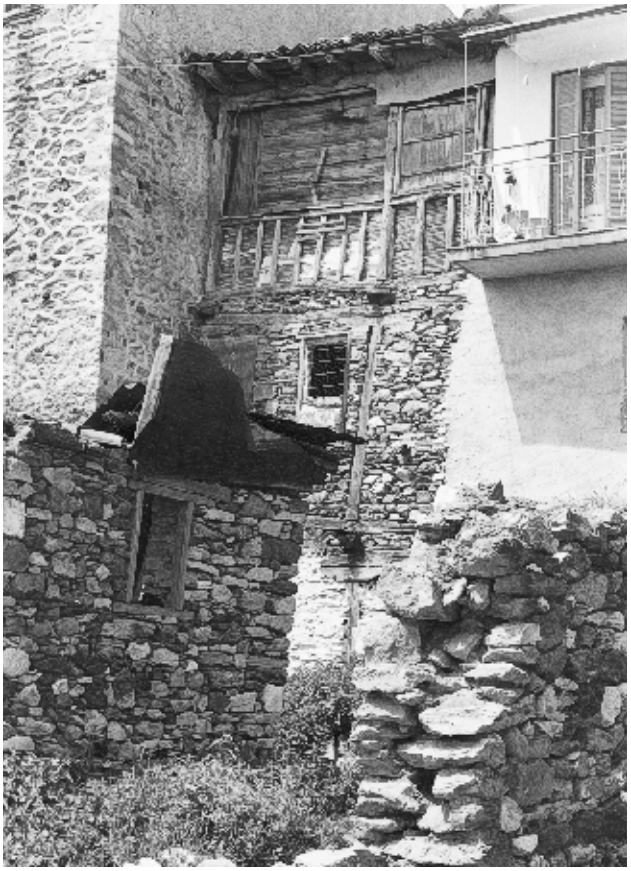


Fig. 43. Facade of EA3.

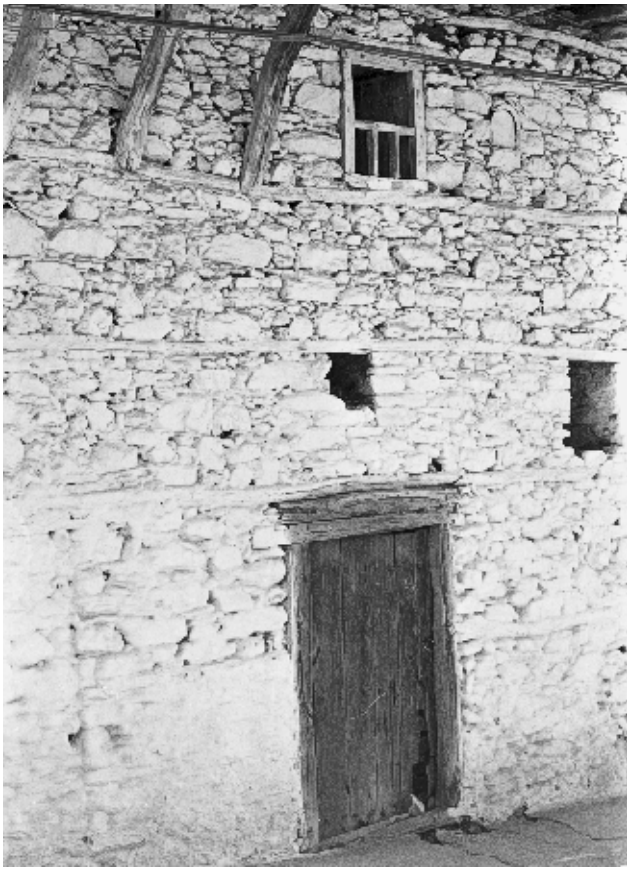


Fig. 44. The oldest window type.

been fitted logically into the tie layer system (cp. C. Goutsaris house, west facade p. 63). The lintels of the openings were rabbeted to two short laths, the ends of which are often visible in the facade between the front lintel and the upper part of the casing.

Timber structures. The supporting timber constructions consist first of all of the two vertical elements: the longitudinal stud wall with infilling of wattle and daub and the row of supporting pillars in the facade of the top floor. The upright studs of the longitudinal wall and the pillars in the facade have capitals on which the tie beams or wall plates rest or are joined together. Great importance was attached to the elasticity of the structure for antiseismic reason (27), and it is not known exactly today how this was obtained, only that studs and pillars were never nailed to the beams and plates they supported (28).

Joist floors. The floors are made from ca. 20 cm round timber beams that rest at one end on the rubble wall and at the other end on the tie girder of the longitudinal wall. A layer of joists, consisting of 12-15 cm round timber, rest on the beams. They rarely bridge more than one span and are not joined to but set off from the next joist. The joists have only been topped to accommodate the short ungrooved boards of oak that only bridge a few of the joists. In Galatista the floor construction is rarely visible in the facade due to the many layers of whitewashing, but at the C. Goutsaris house (pp. 61, 63), it can still be seen clearly, as the house has been uninhabited since the Second World War. One notices the joists that protrude to the west facade, and the floor beams, joists and boards that can be distinguished clearly in the south facade. The floors were originally covered with a layer of rammed clay which can still be seen in the C. Goutsaris house, but also in another abandoned house KBlw and in the E. Angelakis house BG2e (cf. p. 99). Rammed clay floors were common not only in Galatista (29), but in other parts of Greece as well (30).

The roof. The roof structure consists of trusses made of ca. 20 cm round timber. The lower cords of the trusses rest at one end on the wall plate, which is part of the last tie layer and is often reinforced at the corners with cross ties. At the other end, they rest on the longitudinal wall, where they are set off from each other, resting at the points where the tie girder is supported by capitals on studs. The trusses are tied together by the ridge pole and the purlins of 12-15 cm round timber that rarely bridge more than a few spans, and they too are not joined to, but set off from the following purlins. Rafters, that are planed on the two sides, are finally nailed to the purlins.

Fig. 45. Facade of GH2e.

Old houses like D. Panelas's KB4w (p. 63 ff) and the Matsoukis house, BB2w (p. 79 ff) are characteristic examples of this kind of heavy roof structure, while newer houses like the Mastrokostas house, GG7 (cf. p. 95) have much smaller dimensions. This and the low pitch of the roof, ca. 15-20° make one suspect that the roof was originally designed for slate-roofing and not tile-roofing (31). When the roof had been raised, it was covered either by thin boards or more commonly, reeds from the Anthemous stream. Bats woven from reed leaves in Zagliveri (Fig. 2) were then placed on top and covered with a layer of red clay, reinforced with straw, into which Spanish tiles from the tile kilns in the valley were stuck (32) (Fig. 46).

In Northern Greece the *pastas* house and its derivations always have hipped roofs, except if it is part of a row, then it becomes a saddle roof, unless it is the first or last which always have a hipped gable. The roof protects the walls and their easily deteriorating clay mortar against rain like an umbrella, and the hip roof surely also renders a much firmer grip on the house in case of storms or earthquakes than a saddle roof (33). Whenever an old house has a gable in Galatista, it is a sign that the neighbouring house has been demolished and the continuity of the roof broken (e.g. AK3, BC2, HA3 etc.).

Due to the hip roof there is often a narrow passage between neighbouring houses (e.g. BC1 and its neighbour to the east). Such narrow passages are designed for draining off rainwater from the roof since gutters are unknown, and they rarely serve as a passage for humans.

Partition walls. Partition walls could be set up where

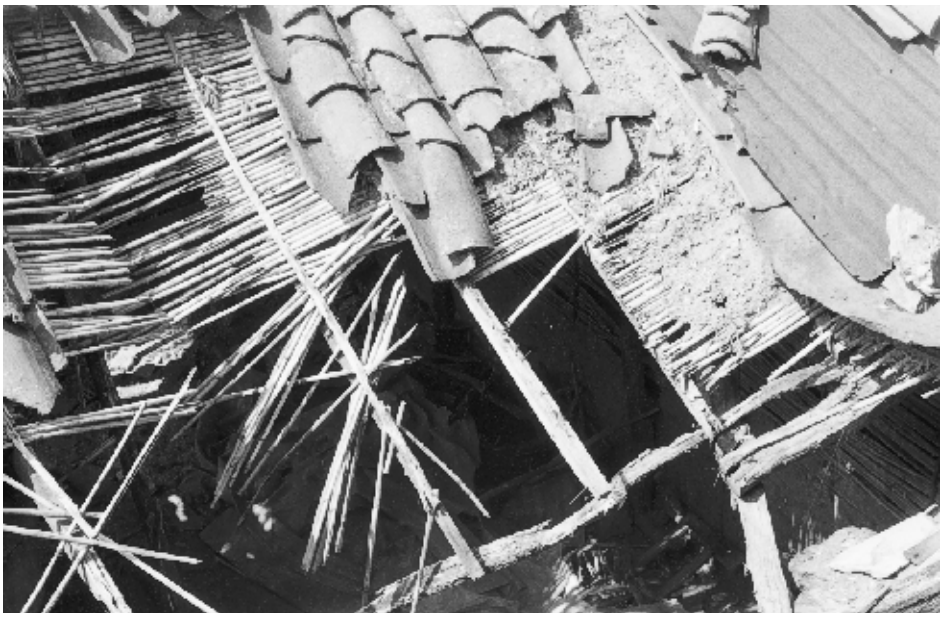


Fig. 46. Traditional roofing.

they were needed, or rather where tradition and later fashion would have them. They were made from uprights and the space in between was filled with wattle and daub. The filler studs were interwoven with branches from pollarded mulberry trees and then filled with red clay mixed with straw. Finally they were plastered, like all other inner walls, with a mixture of red clay and chaff. Only the rich could afford lime plaster, just as whitewashing was a luxury until recently (34).

The whole timber structure bears witness to the lack of access to long, even pieces of timber: the small span of beams, joists and purlins, the studs and pillars with their capitals, that serve to support and reinforce an eventual joint of a tie girder or plate above it. The few pieces of timber of some size were used as beams to give depth to the house, while the many short slender pieces were laid up as joists or purlins without timber connections, thus adding to the elasticity of the whole structure. Indeed the often very twisted form of the roof structure witnesses that the village builder had to make do with timber from the low growing Kermes oak of the maquis nearby (cf. Fig. 5), so one understands his difficulty and also that more refined timber constructions could not develop locally under such circumstances.

The last area, used for cutting timber, was as already mentioned to the east of Galatista (p. 17), and the only building materials, that had to be imported to the village, were originally only nails (35) and fittings; this applies to preindustrial villages all over the world (36).

Joinery. Doors and windows are made either of oak or chestnut, but gates and double doors always of oak. Doors and gates made of oak are usually simple board doors, and the only decorative element may be the coach nails that fasten the cleats to the boards (cf. D. Panelas house p. 64 or Matsoukis p. 80). Doors and windows made of chestnut are usually panelled, which shows that they belong to more recent times, and they were left untreated, acquiring their beautiful dark chestnut tan by wear and tear (37). Many panelled doors, like those in the C. Goutsaris house KClw and the doors to balconies on the Mastrokostas house GG7w, are in fact board doors to which a panelled frame has been nailed to the most representative side of the door.

The oldest windows are very small with a wooden rail in front (38) (Fig. 44) but later they became larger and larger, influenced by fashion and the availability of glass, which was first introduced in Galatista by the rich some time after the middle of the 19th century (39). Before the time of glass panes there were only shutters, and the window might be covered with thin cloth or bellum during winter (40). When windows are embodied into the tie layer, it is a simple procedure to panel the window opening as it has been done at the windows on the west facade of the first floor of the Kanavas house (cf. p. 71).

Some houses have shutters that can close off the *chayati*. They are sometimes top-hinged and open up inwards. Here they are fastened to the roof structure with a hook (e.g. Kanavas house p. 73 and AC4w, JE4e). They may also be two-leafed: one top-hinged and the other hinged to the top rail and left to hang down behind the wooden panel (e.g. E. Panelas house p. 86).

The railing in front of the open gallery, when not a parapet wall of half-timbering, is sometimes made of closely set planed boards, stuck into a top and bottom rail, the latter resting directly on the floor boards and serving as a floor plate for the pillars (cf. D. Panelas, Kanavas and E. Panelas houses, (pp. 64, 71, 85). In the D. Panelas house there are even peepholes (41), in order to keep an eye on the gateway to the street and the open area to the south west. This kind of railing added to the security and privacy of women working on the open gallery, just like the high walls of the yard.

Later when round iron bars were available, they would substitute the boards, but this solution belongs to recent times, when the new road permitted cheaper transport, and the seclusion of women was no longer as important as during the Turkish occupation. Apart from this the open gallery was also serving less and less as a working area, since glass windows permitted working indoors, especially during winter, and so a compact railing was not needed anymore as a means of blocking the cold draught at the floor (cf. renovation at Kanavas house p. 71 and Mastrokostas balcony p. 94).

Stairs are usually steep ladders leading up to the first floor, where they can be closed up by a trap door. They are always situated in the front part of the house and rest on a stepped stone base. This solution may be a vestige from times, when they were exterior which must have assisted in preventing rot at the foot of the ladder at the same time as a shorter ladder would not call for stringboards of long, even pieces of timber, so difficult to find in the maquis (cf. C. Goutsaris, D. Panelas and Mastrokostas houses (pp. 63, 64, 95).

In a few houses, where farming is usually no longer the main occupation, the front part has become a sort of entrance hall and the ladders have been replaced by more comfortable L-shaped staircases with winders (cf. Matsoukis and E. Panelas houses pp. 81, 87). These staircases belong to later times, after machinery had made it possible to have rails with balusters and newel posts that were lathed.

Finally one should not forget to mention the capitals of the pillars in the facade. They represent the connect-

Fig. 47. Chimney in ruined house.

ing link between the horizontal element of the roof and the vertical element of the supporting pillars and are quite often profiled, thus adding a touch of elegance to an otherwise plain house.

Fireplaces. Fireplaces are always situated at the outer walls, and the chimneys are partly hollowed out from the rubble wall (Fig. 47). The fire was lit directly on a floor of fire bricks on top of a substructure of earth, which was supported by two brackets with boards in between (42) (cf. D. Panelas house p. 64).

The mantle was carefully elaborated and there are many variations, according to the prevalent style and the taste of the owner. The chimney pots, often up to 2 m high or more, are many and varied in Galatista, where they represent a pleasant vertical element among the heavy masses of the houses. The most characteristic type is a slender structure made from upright double layers of Spanish tiles (cf. Kanavas house p. 71). Two times five tiles make up an outer and inner ring, stuck together with clay mortar mixed up with straw and lime (43).

Outbuildings. Outbuildings, including the traditional ovens, have simple rubble walls, mostly with tie layers; they are usually situated as a natural fence towards the neighbours and more rarely towards the street. They normally have shed roofs so that the rainwater drips off into one's own yard or in the street. When the slope is

Fig. 48. Oven at HC2.

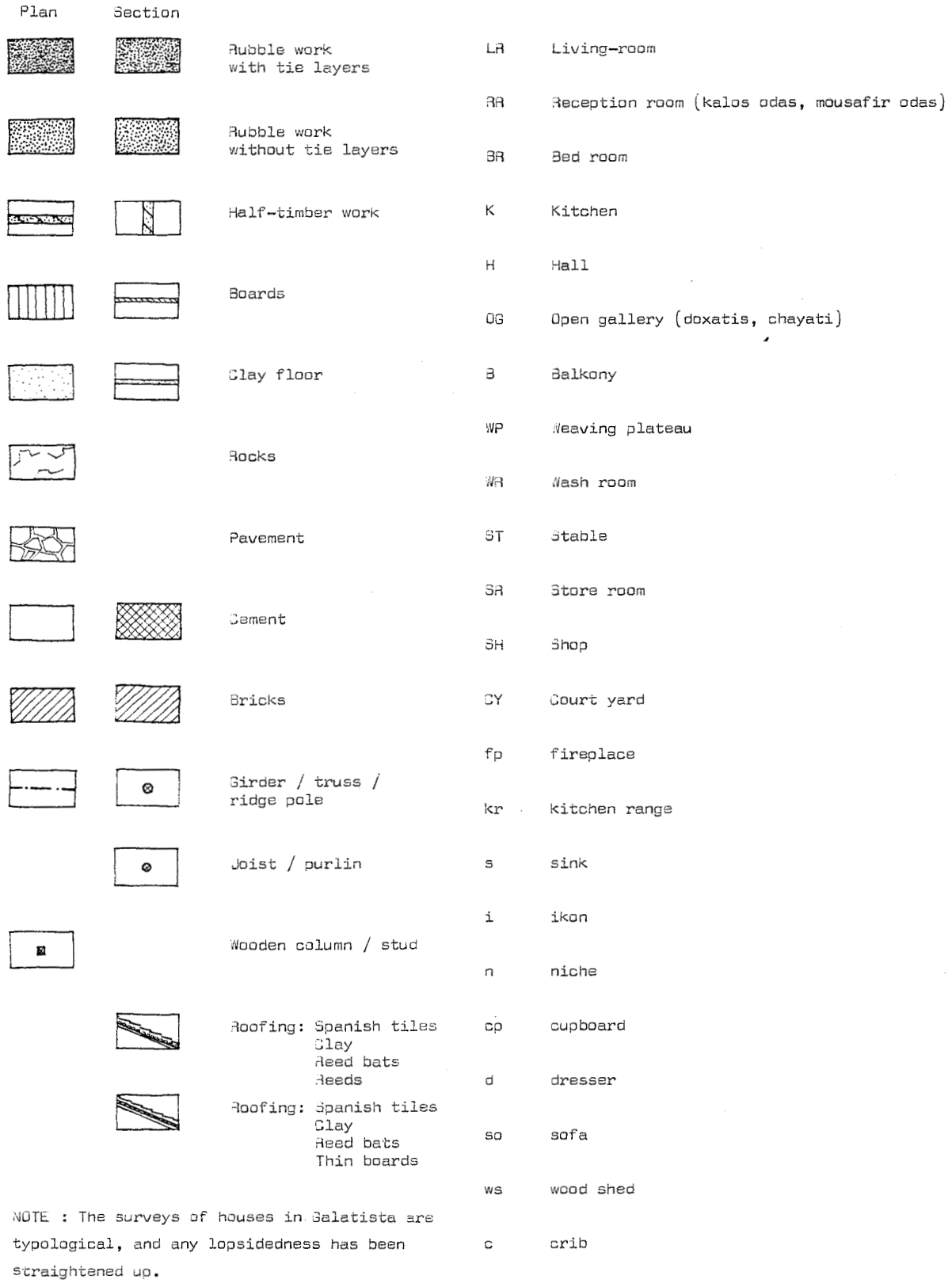


Fig. 49. Symbols and signs for surveys of houses in Galatista.

steep, the height is made the most of by making it two-storeyed, and the ground floor is then usually a stable and the top floor a barn (cf. Matsoukis house p. 80).

The ovens were always built by builders, as it took skill to make the dome. It was made of broken tile stuck together with mortar consisting of two parts red clay and one part lime (44). As already mentioned before, there is a thumb thick layer of salt under the slabs of the oven floor (45), which I suppose must have served as a kind of insulation. In order to make the oven ready for use, it had to be fired for a long time to dry up, otherwise the bread would not be properly baked (46) (Fig. 48).

The yard. Yards are always found in cultures that are characterized not only by clustering but by the hierarchic structure of the society (47). It serves as a connecting link between the public area and the private. Tall walls would prevent free view to it, and protect the privacy of women, while on the other hand, they could serve as an extra line of defence against assault. Sometimes the gateway is covered with a porch roof (48), which accents the main entrance to the house and its domains, at the same time as communication with strangers could be restricted to this point in all kinds of weather (cf. Matsoukis house p. 80). The yard is always to the south of the house and is either cobbled or covered with stone slabs.

C. Goutsaris house.

Type 1 or 2 (cf. p. 54) are, as mentioned above, represented, among others, by the C. Goutsaris house KClw, a very interesting house belonging to the Goutsaris patrilocal neighbourhood (cf. p. 30). It is one of the oldest in Galatista, since part of the original two-storeyed stone house is still extant, but it can no longer be established with any certainty which of the two types it originally was, as the house has been renovated and the roof altered into a saddle roof, probably sometime between the two World Wars (49) (Fig. 50-54).

The original two-storeyed stone house must once have been a longhouse, since the south wall in the basement continues without interruption till after the gate in the neighbouring house. This can partly be deduced from the continuity of the tie layers, and partly from the condition in which the owners left the old wall under the neighbouring dwelling in order to make room for a projection of the first floor towards the south: they did not bother to give the top of the wall a proper finish, but left it rugged. The nucleus house must also originally have had a customary hip roof which can be deduced by looking at the present gable of the west facade: the character of the rubble work is different from that of the rest of the wall; it even has some stones of tufa.

The main body of the house is constructed in the traditional way, as described above, but there is no carrying longitudinal wall of half-timbering, apart from the narrow strip above the stone wall under the ridge (cf. section). The dimensions are on the large side: some of the beams and girders are up to 25 cm in diameter, and the laths of the tie layers are as much as 10 cm high, as though there was still plenty of timber to fetch in the forest at the time the house was built. Later, as we shall see, dimensions are slighter, witnessing that some economy of timber had become a necessity. Unlike most other houses in Galatista, all timber structures are clearly seen in this house, because it has not been whitewashed as it has been left uninhabited for some forty years.

The basement of the stone house has a window in the south wall, which is only one of many signs denoting that the extension of the nucleus house to the south cannot originally have had the form it has today. In the window frame one can still see mortices from the wooden fence that was once in front and which places the window among the oldest types (cf. Fig. 44). In the walls were once small recesses for oil lamps, but they were later walled up, and one also notices the usual structure under the fireplace to insulate the wooden structure from the heat of fire.

The main room above was the living-room of the family. It is a spacious room, ca.23 m, which is well above the average of most houses that have been surveyed. The floor was once covered with rammed clay, but it has deteriorated for lack of maintenance and grass is growing where the low rays of the winter sun shine through the door! The fireplace at the back wall has two recesses for oil lamps built symmetrically on both sides, and a cupboard has been built into another recess in the west wall. The cupboard in the west wall was originally a window sitting exactly above the window in the basement, but it was walled up and turned into a cupboard, when the two rooms were built on the extension to the south. The small window to the west is built logically in between two tie layers and set in an embrasure which is quite naturally slanting at a greater angle towards the room to give maximum light and outlook.

The extension to the south is clearly built on rubble walls that do not form a homogeneous part of the main house: there is an open breach between the two walls at the corner towards the street, and the systems of the tie layers are not interrelated as one would expect them to be if they had been built at the same time. The south wall is an even later addition; it has no tie layers at all, and there is a visible breach between it and the side-

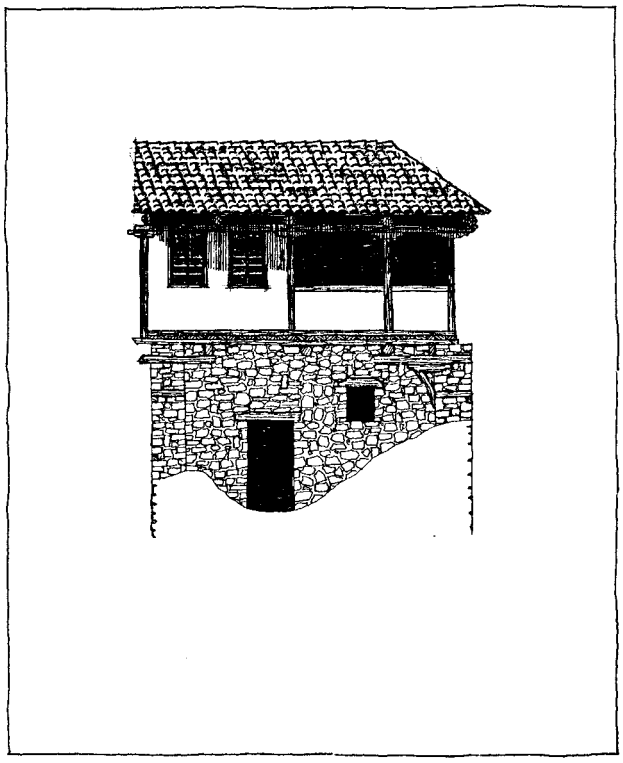


Fig. 50. South facade of KC1w 1:150.

wings. Once there was a girder carrying the beams of the open gallery, but it has been disconnected and some of the capitals that once supported it on top of pillars or brackets, are very likely those still seen in the facade, one of them even reused as a lintel above the small window opening (50). It is evident that the room in front of the basement of the main house was once an open portico.

A steep flight of stairs, that could be shut off by a trap door, leads from the portico to the *doxatis* as they still call this open gallery (51). Two small rooms have been accommodated here on a slight projection towards the street. One was a kitchen without light, the other a *mousafir odas* (52) or reception room, where the windows are set well above the floor, because furniture in West European style must have been introduced by then. The ceiling is made of planed dark brown chestnut boards with profiled battens and together with the panelled door, it adds a touch of refinement to the otherwise simple room. The joinery is similar to that of the Mastrokostas house (cf. p. 95), which was built in 1922, and also in this house the panelling is a frame nailed to a plain board door at its most representative side, showing that the vil-

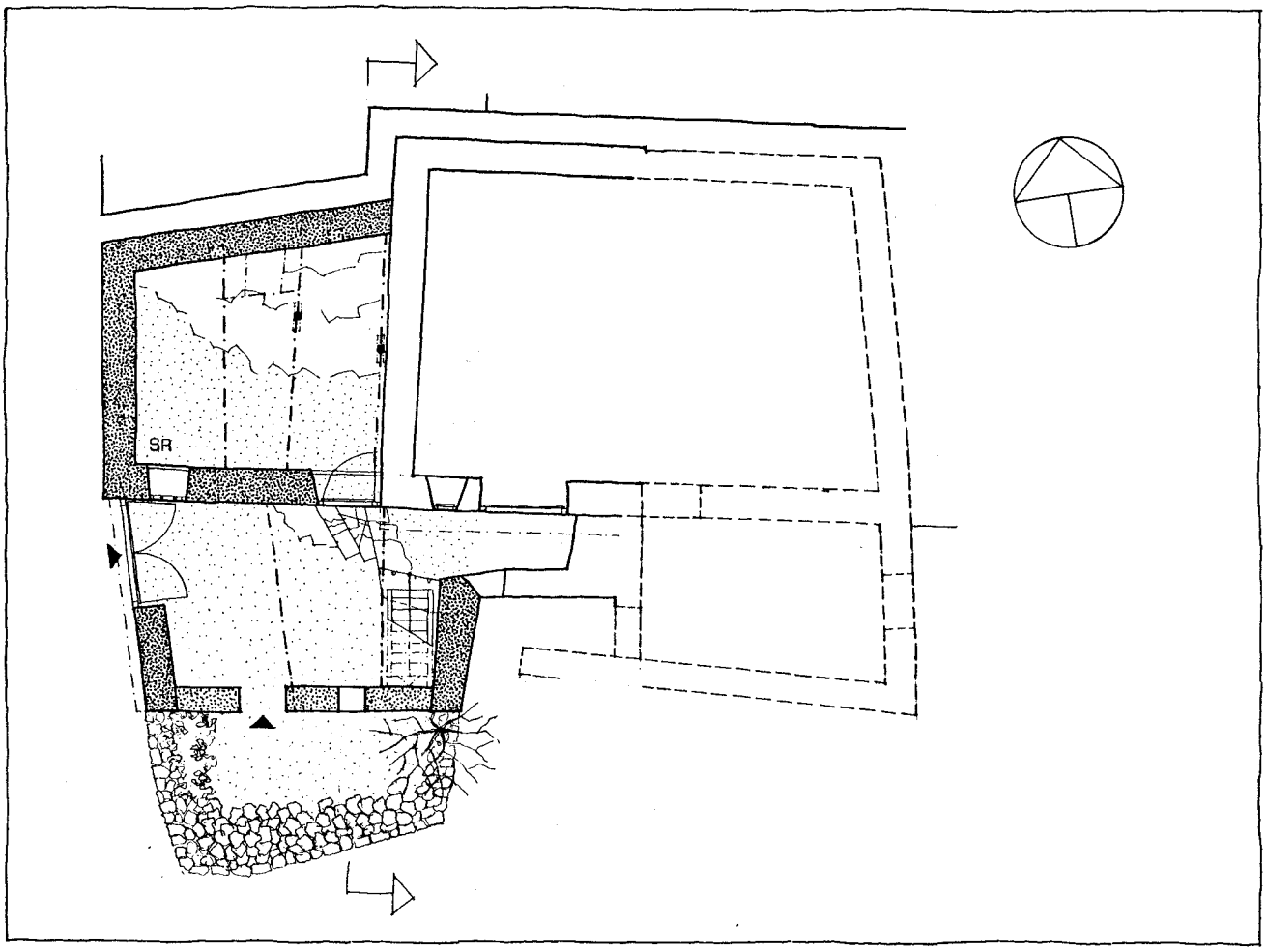


Fig. 51. Plan of basement in KC1w 1:150.

lage craftsman had not so far mastered the technique of making a genuine panelled door. This is yet another hint that the two small rooms may have been made at the same time as the roof was renovated, sometime between the two World Wars (53).

The whole house with its three dwellings has belonged for generations to the Goutsaris family and the only part that is still inhabited, is the east, which belongs to a third cousin of C. Goutsaris: Yannis Goutsaris. The three families each had their own living quarters, but the basement was originally shared by all and used for stable and store rooms, since the land was tilled in common.

The middle part obtained its present form by extensions towards north and south in order to accommodate two rooms. The tie layers of the basic house have been cut off at the corner, and the tie layers of the new house follow another rhythm. The projection of the first floor to the south had caused a special problem, because for some reason or other, the rubble wall was also projected and only at the first floor. It was overcome by an awkward solution with the projection resting on boards supported by two brackets (cf. Fig. 54).

In the room to the north there are recesses and cupboards symmetrically positioned beside the fireplace, while the only window to the north has been walled up. In any case the room would have been badly lit anyway, as the window faced the tall wall of the neighbouring house only 60 cm away.

The room facing the *doxatis* also has a fireplace, and it had a ladder with a trap door leading down to the barn. This solution, with a ladder in a primary room, is most unusual and may be due to the owner's wish for an independent entrance to his dwelling. The small window, closed only by a shutter, is low set and must go back to a period when there was no furniture in the Western European sense, when people squatted on the floor in the oriental way. From the window there is full view to the staircase on the *doxatis*, and the parapet wall was maybe given its lopsided direction for that reason. The east house is a renovation of an old house that was even more decayed than the west part is today. There was a similar *doxatis* to that of the western part, but the owner had it walled up with walls of half-timbering in order to set up a reception room and a kitchen, but here they

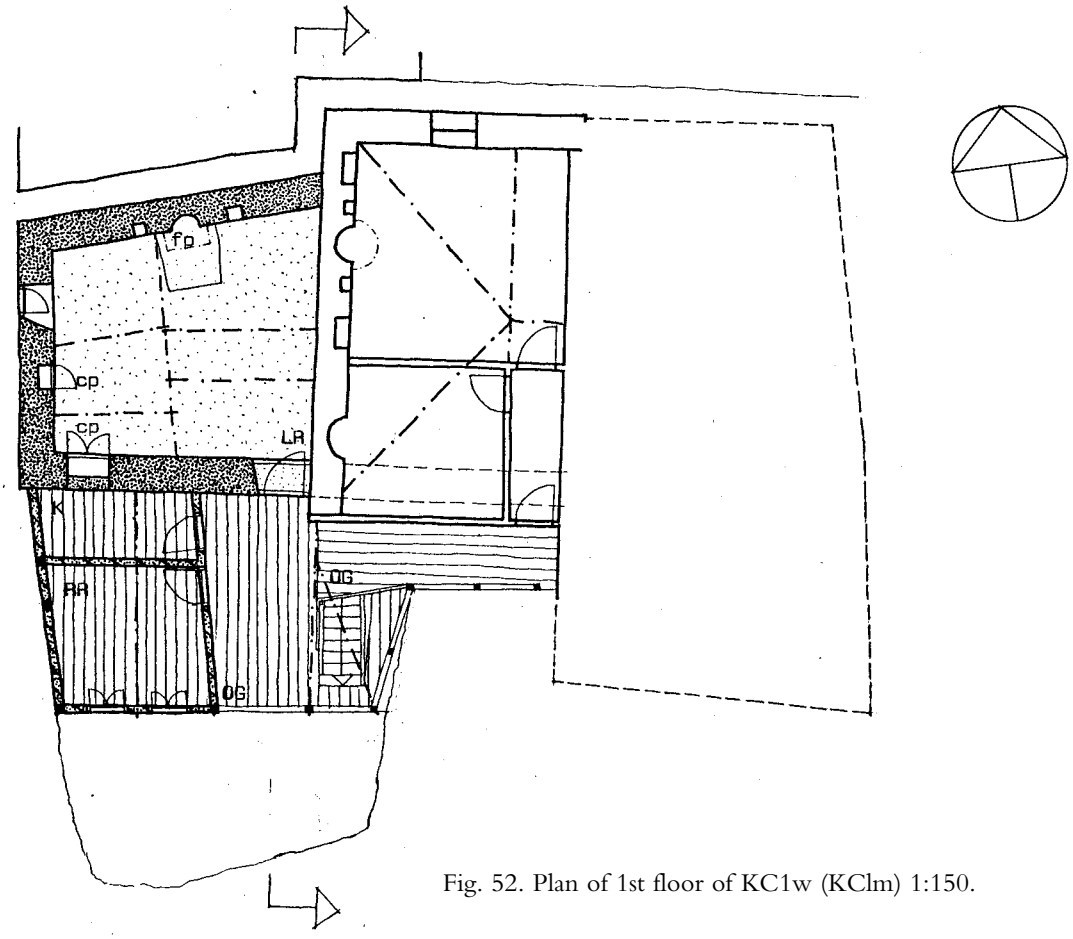
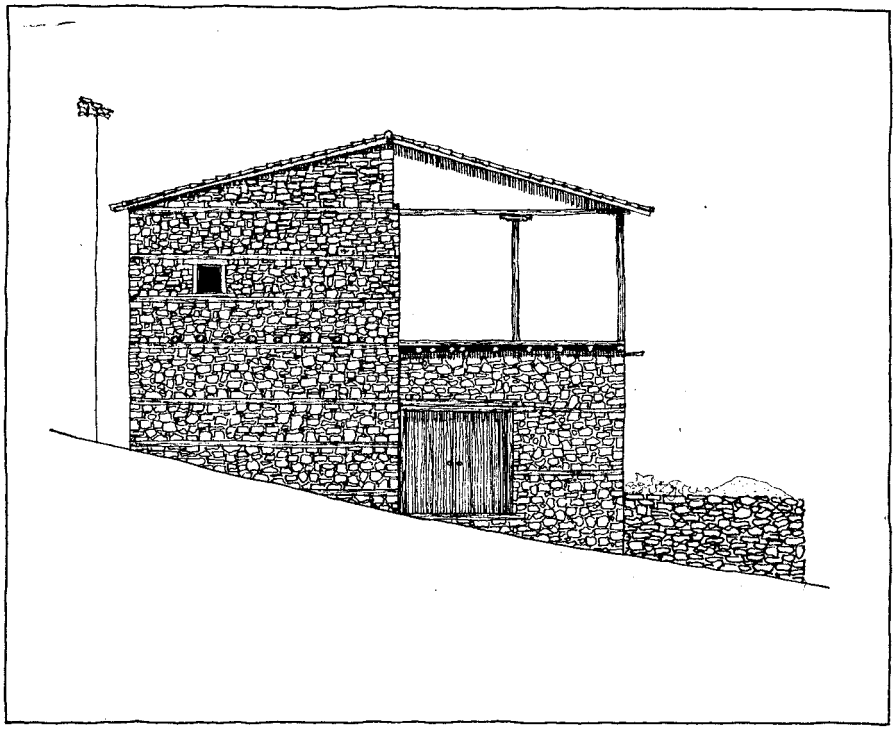


Fig. 52. Plan of 1st floor of KC1w (KClm) 1:150.

Fig. 53. West facade of KC1w 1:150.



both turn towards the east. The renovation took place in 1943, when it was still considered a luxury to use bricks. The rubble walls have been rebuilt, still with clay mortar, but there are no longer any tie layers. The room in the basement towards the south was originally a yard, but became part of the house during the renovation, because it was used too much as a thoroughfare (54). So in a way this house with its three dwellings seems to have elements from many different times, and as such it is quite unique.

D. Panelas house.

This house, KB4w, is one of the few houses that still has the open gallery as it was originally; the only later addition is the small projection in the south west corner to

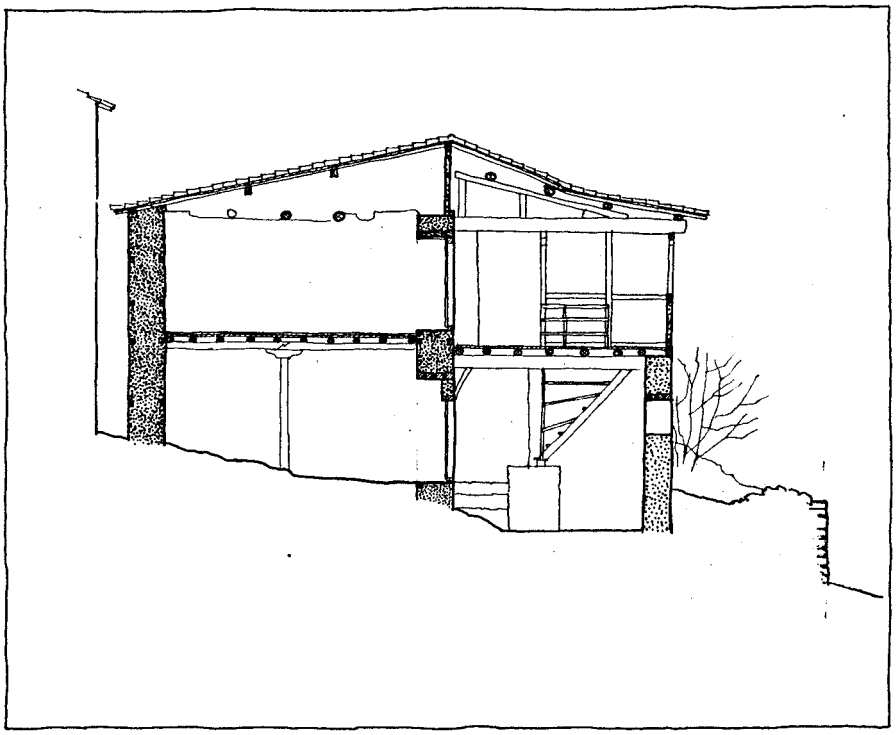


Fig. 54. Section of KC1w 1:150.

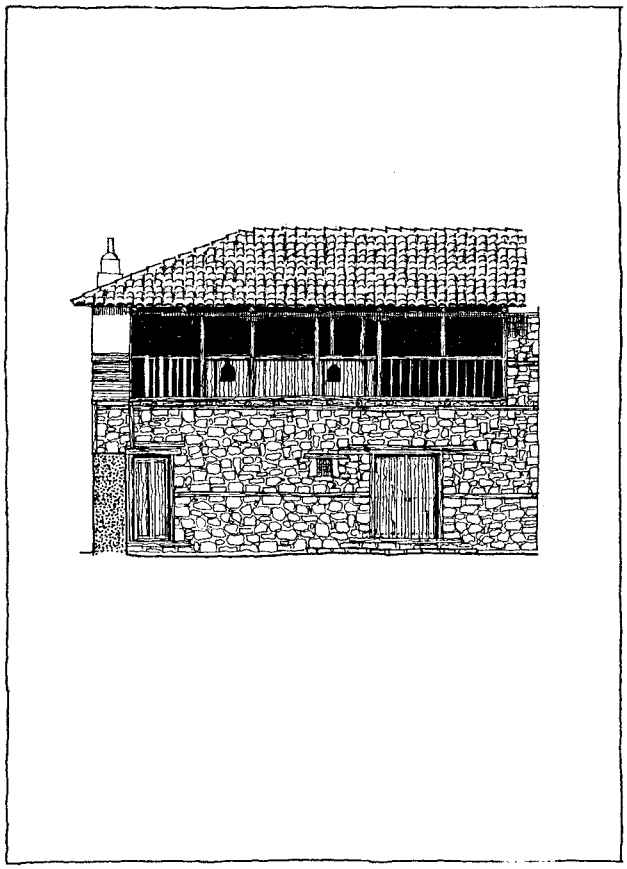


Fig. 55. South facade of KB4w 1:150.

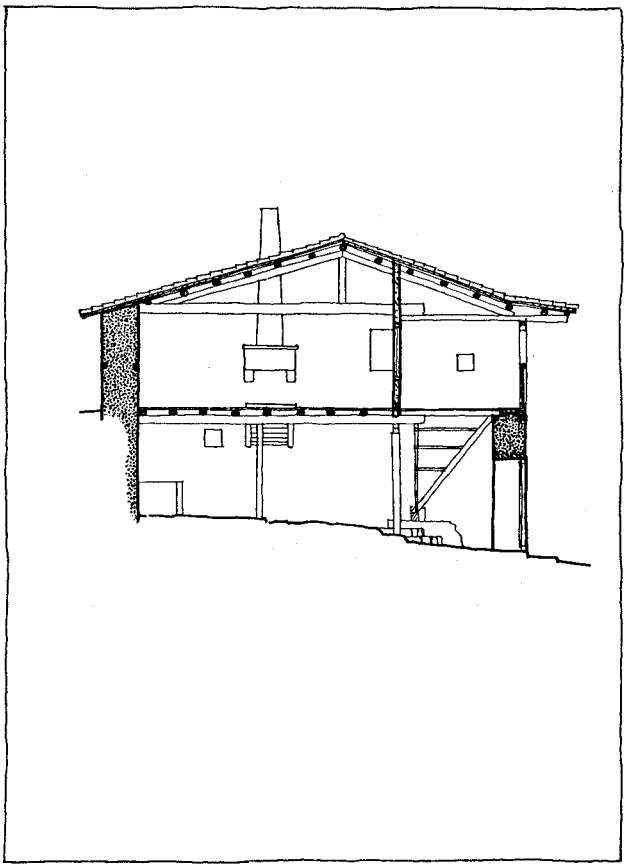


Fig. 56. Section of KB4w 1:150.

make room for a sink and a tap for running water. But what is of most interest is that the house represents a transition from Type 2 to Type 4 (cf. p. 54), which is apparent in many ways: the floor of the gallery is carried only by joists at right angles to the facade, and not by joists laid up parallel to the facade on beams, as would be the case later, when the need for broader galleries was of current interest (cf. Kanavas, Matsoukis houses pp. 73, 80).

The house has furthermore the characteristic exterior form of Type 4 with its extended basement, surrounded by rubble walls, but in this house there is only a longitudinal wall of half-timbering on the first floor, which does not support the ridge either, as was also to be the case later (cf. the abovementioned houses). In the D. Panelas house the ridge is supported by two king posts that rest on enormous girders, but one still had to be supported by a pillar. The front facade has also been reinforced with several more pillars, because more trusses had to be set up in order to disperse the pressure of the roof. According to the owner, every four years he has to repair the roof in order to keep it waterproof, and considering the low pitch, only ca.17°, one suspects that the roof may originally have been covered with slate, or it may have just conformed to previous prototypes. As it is now, it seems that the pitch of the roof is not sufficient to drain off the rainwater properly from traditional roofing consisting of Spanish tiles stuck in mud, or it may be due to displacements in the roof structure.

The house was once a single property, but after sharing, two non-related families had come to each occupy one room on the first floor and the equivalent part in the basement, where the partition wall was originally of half-timbering, but some time before the second World War it was substituted with the present rubble wall, without tie layers, in order to prop the house up (55). The corridor on the first floor was created when the house was shared, in order to give direct access to the open gallery from a new door at the back of the house (55).

The west part of the basement has a slanting floor of rock and could only be used as a barn or a pigsty, which was its function till recently. The door to this room is unusual being a genuinely panelled door, and it might originally have been the door to the eastern room on the first floor, before the corridor was made and a new double-leafed door was set up.

The eastern part of the basement served as a stable for draught animals since the owner's ancestors had been muleteers for generations. There is a crib in the corner, and the ground has been terraced and cobbled. The double- leafed gate to the stable is locked off by the help of a heavy wooden bar that is built into the wall. This was

a common solution elsewhere in Greece (56). The stairs to the open gallery are situated in the eastern part, an arrangement that seems to be common in Galatista (cf. Goutsaris, Kanavas and E. Panelas houses, pp. 62, 72, 87) and may be in order to leave that part free which caught the first rays of the morning sun, something that would be important in the winter, when work was carried out in the open. The west room on the first floor has only a small window towards the gallery and is closed only with a shutter, while the east room has a glass window with iron bars in front, so one could keep an eye on the comings and goings on the staircase from the living room. As mentioned before: the residents could keep an eye on the gate to the street and the open place to the south west of the house through the two holes in the wooden railing, and they were even placed so that the best view could be had from the two doors which originally must have been beside each other in the middle of the open gallery.

Since D. Panelas was unable to carry on the trade of his ancestors after the new carriage road had been made, he had to make a living in Salonica, and so he only uses his house summer and autumn, when he picks his olives. This is the reason why his house has not been renovated like most other houses in Galatista, and he even intends to keep it as it is, because the big open gallery is ideal for entertaining guests on summer evenings, in contrast to the narrow balcony of his flat in Salonica.

Further development. As already mentioned, D. Panelas's house is today the only house in Galatista that clearly represents a transition stage between Type 2 and 4 (p. 54), but what had happened to the other houses? When first you start getting to know the village, you begin to wonder why most of the south facades are so disarranged, with up to three different window types in the same facade, but soon you come to realize that the villagers have been closing the original open gallery in stages, each time making use of window types in the prevailing style.

Traces of the pastas house in Galatista. When looking at the map, Fig. 59, it appears that only very few houses still have an open gallery, or part of one, and these houses have either remained uninhabited for years, or they are inhabited by members of the oldest generation that leave it to their heirs to modernize or rebuild the old house. The rest of the houses are either houses that apodictically had an open gallery or indicatedly so.

Data concerning possible derivations of the *pastas* house in Galatista for obvious reasons refer to exterior features which has caused only been a little problematic when it comes to establishing the style or mixture of styl-

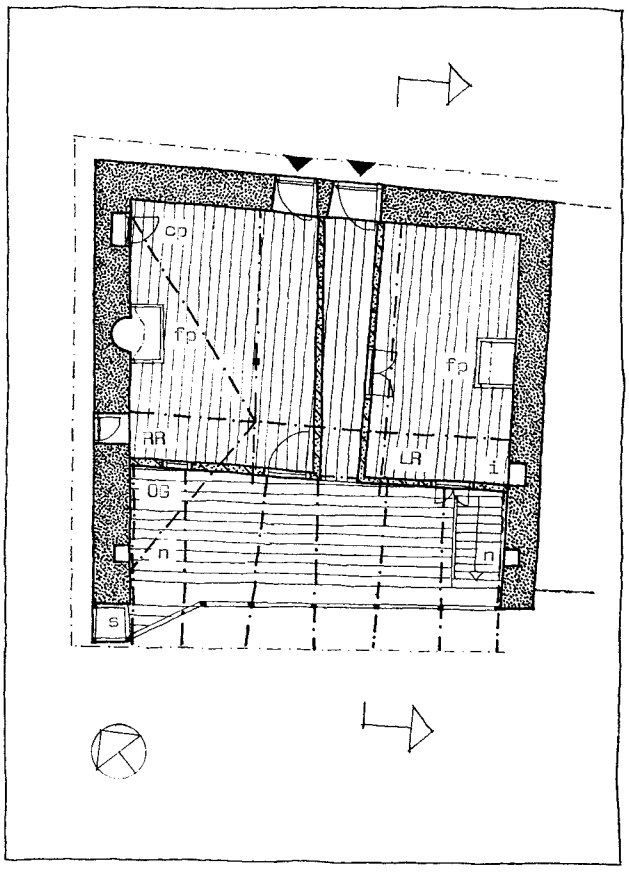


Fig. 57. Plan of the first floor of KB4w 1:150.

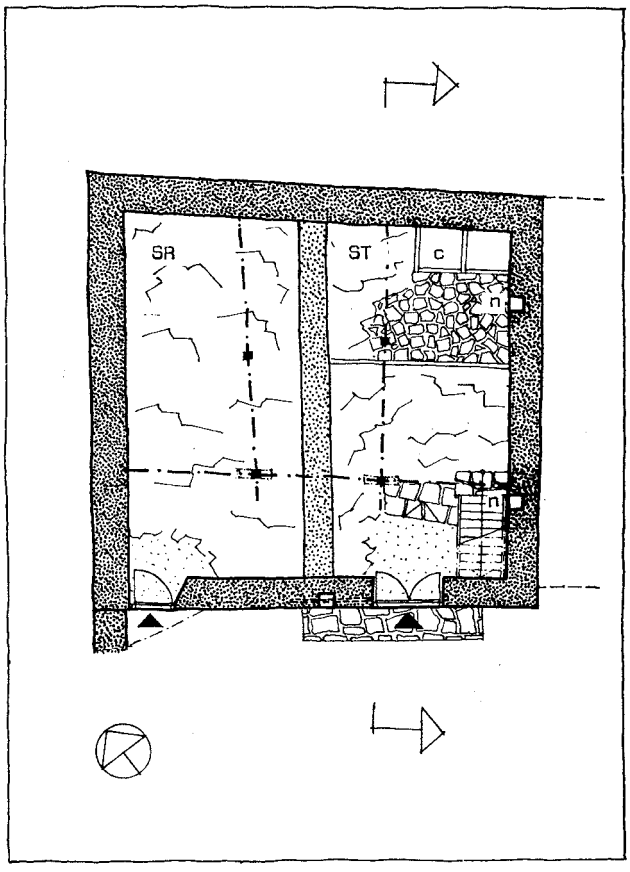


Fig. 58. Plan of the basement of KB4w 1:150.

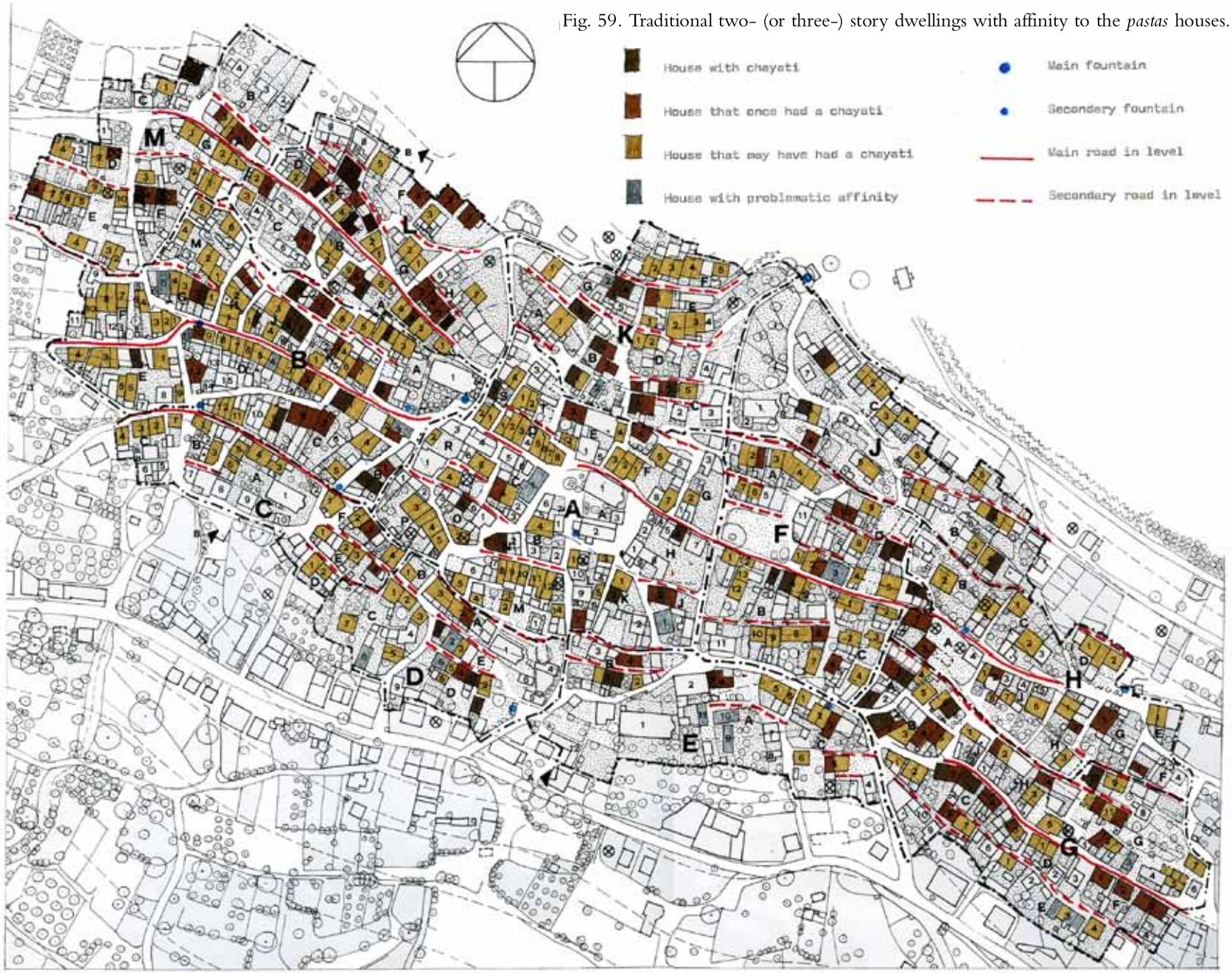


Fig. 59. Traditional two- (or three-) story dwellings with affinity to the *pastas* houses.

es, of each single house, but when it comes to evaluating whether a house is actually some derivation of the *pastas* house, the final answer can often only be given by further exploration of its interior, which, however, would be an impossible task (57). Nevertheless it remains a fact, that most of the houses originally had an open gallery, or part of one (58).

The pastas house and the plan. The map, Fig. 59, shows the way the *pastas* house was situated in the plan: they form rows along level main streets, leading out of the village, or along minor streets in level. Close to fountains there is also, as one would expect, a tendency to clustering, especially on slopes that are so steep, that they must have been unfit for terraced gardens, at the same time as the steepness itself allowed the houses to be built more closely together, without taking away sun and view from the house above. Such sites are those to the west of St George, to the west and south west of St Paraskevi, the densely built-up area to the north of the fountain at EC2 and most of the area to the north of the *agora*.

Areas such as the neighbourhoods J and H, the north east part of G and the south part of E are built-up very sporadically, mostly with double houses, and I believe that they were built by settlers who had moved out from the overcrowded patriarchal homes in the centre. This time the houses were built on terraced land, perhaps already belonging to the family, or the property had simply been bought like Mastrokostas's house GG7, thus moving away from his ancestral home in CE2 (59).

Most of the houses have a yard to the south, but sometimes the plot is so deep that a yard is laid out to the north too, like at BC9, BK7, HG1 HH1, HJ6, HJ7 etc., or the back part of the house becomes a two-storey farm building under the same roof like at KA1, BE9, but this solution is rare, as it presupposes free areas to the sides in order to give light to the back rooms of the dwelling, when the open gallery has been walled up. Sometimes the plot is so small that there is no room for a yard, or it has already been absorbed by extending the house, and in this case it is not unusual to let the open gallery protrude over the street as in EB4, FD1, LA7 etc. (cf. Fig. 60 & 61).

Extending the family dwelling. There were several ways to extend the family dwelling. The open gallery could be walled up, usually in stages, and a new gallery or balcony erected in front, but this would usually mean that windows had to be made in the rubble wall towards the north. For reason of protection, such windows were only very small in the beginning (e.g. GH2m, GH2e etc.), while large windows are not seen until much

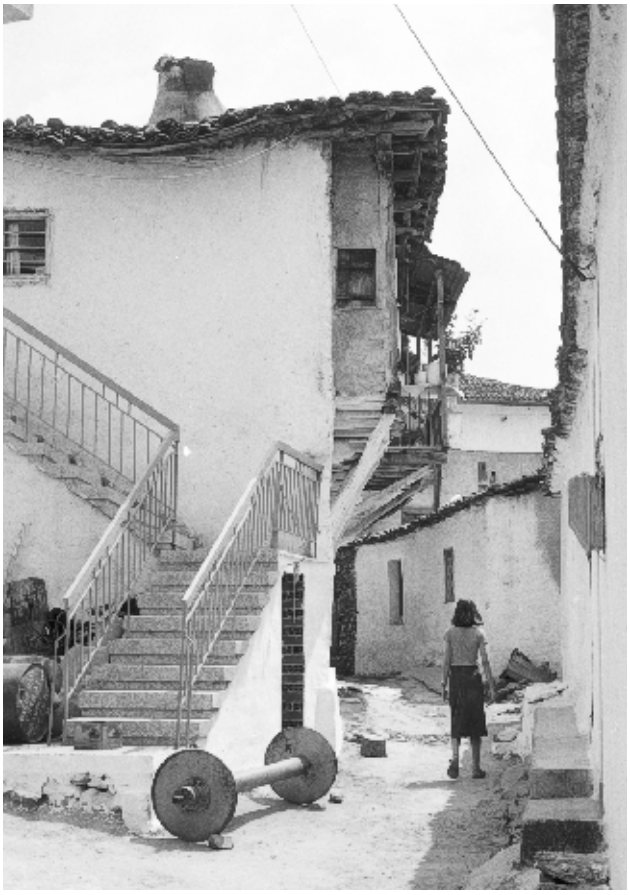


Fig. 60. EB4 seen from the west.

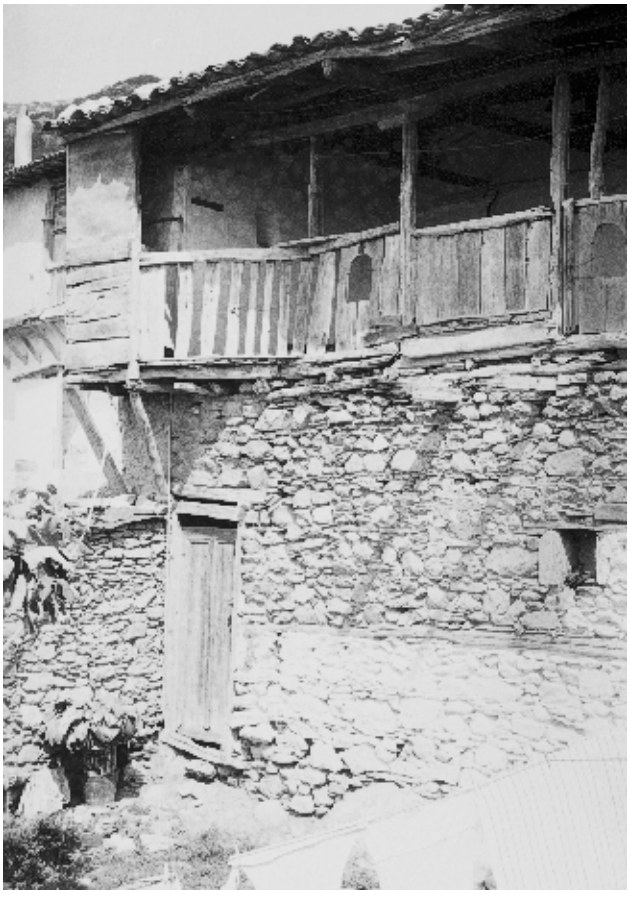


Fig. 61. LA7 seen from the east.

Fig. 62. The Byzantine *archontiko* AR1.

Fig. 63. Byzantine tower mansion near Makrinitsa.

later, after the liberation from the Turks when times had become more peaceful. After the new open gallery had also been walled up, there were bound to be rooms without light, if the house was part of a row. This is the case for some houses that I have visited, like BC9w, BG2w and GB2w. Such rooms are used either as a storeroom or sometimes as a bedroom. Only in houses like BH1 and HG1 the situation is ideal, since there are open areas at both sides.

Another way of extending the family dwelling on a fairly large ground was to build a new house. Houses like BG7, BJ4, BK1, GJ1, GH1 may have been built for that reason, and since they are at main streets, some even have a shop in the basement, thus providing the family with an extra income (examples are underlined).

A few dwellings at the fringe of the village are certainly built in the traditional way, but it is doubtful whether they are derivations of the *pastas* house. They are such houses as DC6, EA9, EA10, EA11, most of them situated on fertile terraced land, and their situation as well as their peculiar oblong form make one wonder if they are not rather more adaptations of former outbuildings.

Houses like LE8, LE9, MB1, MB2 and MB3 are only one-storeyed houses and seem to have been dwellings for poor shepherds who did not need large store rooms like the farmers.

All other dwellings not marked on the map Fig. 59, are either the two *archontika*, or neoclassical and eclectic stone houses, or modern houses of reinforced concrete and bricks.

New ways. As already mentioned, the open galleries had been walled up and windows set in accordingly to prevalent fashions. But what fashions could possibly have influenced a village like Galatista that seems to have been the setting for the same kind of life through centuries and apparently making use of the same kind of house: the *pastas* house and its derivations?

I have already given an account of the 18th century as being a century of economic progress in Greece, especially in villages that enjoyed some kind of privilege in their relationship with the Turkish authorities (cf. p. 22). Emigrants, who had done well as businessmen in foreign countries, would return to their village and form a kind of middle class (60) that kept an eye on the doings of the middle class in towns, in this case of course Salonica, where the rich, Greeks and Turks alike, built themselves impressive three-storeyed mansions in the new Anatolian style (61), just as they would do elsewhere in Greece (62) and Asia Minor (63). It is characteristic of the self-confi-

dence of this new class in Galatista that they did not try to imitate the *archontiko* AR1, which is Byzantine with its arched doors and windows, and the two typical *iliaki* (solariums), but had their houses built in the new way (Fig. 62).

The Anatolian house. The new Anatolian style originated in the *konaks* (Turkish mansions) in the west part of Asia Minor (64), and was later not only confined to Turkey, but could be found in different variations not only in Greece, but in Yugoslavia (65), Bulgaria (66) and the Middle East (67) as well. It can be traced as far back as the 17th century and today it is considered to be a style that is a synthesis between Persian religious and Byzantine secular interpretation of an aristocratic residence.

The sultan's first palace in Istanbul was Cinili Kiosk which was built after Persian prototypes a few years after the fall of Constantinople in 1453. Cinili Kiosk, which can still be seen inside the confines of Topkapi, played a great part in the planning of the Anatolian house according to the holy Moslem division into four parts, each representing the four corners of the world. So we have the characteristic cross plan with four withdrawing rooms in the corners and with open *eyvan*s (dais) in between, being more or less part of the central hall (68) (Fig. 64). The Byzantine *archontiko* with its *iliaki*, a structure also known in ancient Greece (69), was further developed into the elegant projecting *sachnissi* of the fully developed Anatolian *konak* (70). The transience of these structures was intended, not for reason of economy as among the poor, but because of the Moslem belief in the permanence only of Allah, and building afresh rather than maintaining was ingrained (71).

One of the few Byzantine tower mansions, that could once be found all over Greece and the Balkans (72), can be seen in the photo from Koukourava near Makrinitsa (Fig. l). They were three-storeyed and built for defence. The basement was used for storage and the first and second floors for living. It was common for the entrance to the tower to be on the first floor, which could only be entered by a ladder that could be taken inside (73) (Fig. 63), an arrangement also applied to the defence tower of Galatista. In the photo from Koukourava one can still see the remains of the *iliaki* that once protruded from the top floor, but how they ever managed to open up most of the top floor to provide it with the airy wooden structures of the Anatolian *konak* is unknown. However, to me there can be no doubt that the experience from the *pastas* house must have played a role too, for in many parts of Asia Minor the *pastas* house was also the oldest type of peasant house (74), and as we shall see, it was a fairly

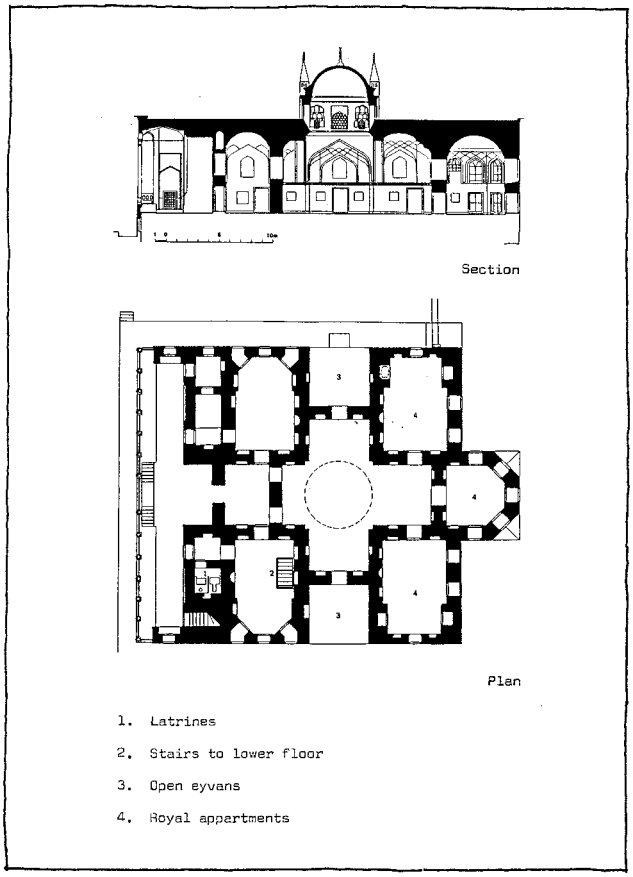


Fig. 64. Cinili Kiosk 1:1500.

simple procedure to fit a *sachnissi* to a *pastas* house in Galatista.

The style of the Anatolian *konak* must have covered some requirements, for during the 18th century and well into the 19th century it was the prevailing style for mansions in various places of the Ottoman empire (75), and there were only local variations, at least in Greece (76). Common to them all was that they were three-storeyed stone houses, with parts of the walls on the third floor being half-timbered, with storerooms in the basement, and winter living quarters on the second floor, while the second floor was the representative area, the summer living quarters, and often enough also the area where extended home industry was performed (77). The second floor, with its light structures of half-timbering, is the part that most often lives up to the ideal set by Cinili Kiosk. *Sachnissia* would provide ample and regular corner rooms, *odas* (78) that could be opened up by a row of shutters to let in light and cooling breezes and, not least, reveal a magnificent view. Between the two *odas* in the main facade there was usually an open gallery, *chayati*, which in later times was equipped with shutters (79) and still later with glass windows, a luxury that only the rich could afford in the beginning.

Fine examples of such mansions can still be found in

Fig. 65. Gouryotis mansion in Koukourava.

many parts of Greece: in the villages on Pelion (80), in Ambelakia (81), Veria (82), Siatista (83) and Kastoria (84), but unfortunately they have all too often been left to decay.

One such mansion, that is of special interest because it has some affinity to the Kanavas house BA2 (cf. pp. 71,73), is the Gouryotis mansion also at Koukourava below Makrinitsa (Fig. 65). This mansion, with its *chayati* on the top floor, is considered to date from the last half of the 18th century and is quite unique in Greece (85), but related to other Greek mansions of the same time (Ambelakia) and in Asia Minor. I believe that the reason, why this type is rare nowadays, is due to the fact that it represents the oldest type.

Isnafia. Building mansions of refined quality called for highly skilled craftsmen, and it is known that many of them were built by gangs of master builders (*isnafia*) that were at work all over Greece, thus continuing the long tradition of the well-organized guilds of the Byzantine era. Some of these *isnafia* came from the famous villages of master builders in Epirus and West Macedonia, and they were at work not only in Greece, but all over the Balkans and as far away as Persia, Egypt and even the Sudan (86). The last *isnafia* were at work until before the Second World War, when new building methods with reinforced concrete seem to have outstripped them.

Their achievements are even more striking, if you visit some of their villages (i.e. Pentalofos, St Paraskevi, Fourkas, the villages of Zagori etc.) to study how they built their own houses, and then compare villages where houses have only very little to do with architectural currents, but are built first of all to serve the everyday need for a spacious, sturdy and well-proportioned dwelling, built from materials of the vicinity. These gangs of builders, like other crafts performed as an extra income in remote mountain villages, were born of poverty in communities where arable land was scarce (87). Their work, which was highly specialized with each member performing his special craft, was seasonal, beginning early in spring and ending late in autumn. They would build all kinds of official buildings, roads, bridges and mansions, always conforming to local style and the wishes of the client (88). The mansions they built in towns and villages, very soon became models for the less affluent in a hierarchical society (89), but this time, as we shall see, they were built by local craftsmen of limited skill.

Y. Kanavas house.

In Galatista there is a fine example of a house that was started with the intention of building a mansion in the Anatolian style, namely Y. Kanavas's house BA2w (Fig. 66-71). The house, which was bought by the owner's father after the Balkan Wars in 1914, has unfortunately been left uninhabited for years, and the roof is beginning to fall in. Kanavas found no other solution to the problem of housing himself and his sons than to build a new apartment house down by the asphalt road, thus following the practice of moving the patriarchal family to an area that could house them all and with possibility of housing the next generation too (90).

The house was originally built as one single house with one entrance to the first floor from the north, where there once was an upper yard, and another entrance to the basement from the lower yard to the east. The two yards were once connected by a door and a flight of stairs in the eastern yard, but they must have disappeared when the house was divided and the two yards got different owners. Today a gate, leading nowhere, is still seen in the wall separating the two yards. The house diverges from its prototypes, because the usual division in winter and summer dwellings never came about, as the second floor remained one single area used for extended home industry, and so the house remained at an early stage of becoming a real mansion. According to the owner there used to be casks with silkworms that were fed on mulberry leaves, and he himself had the two

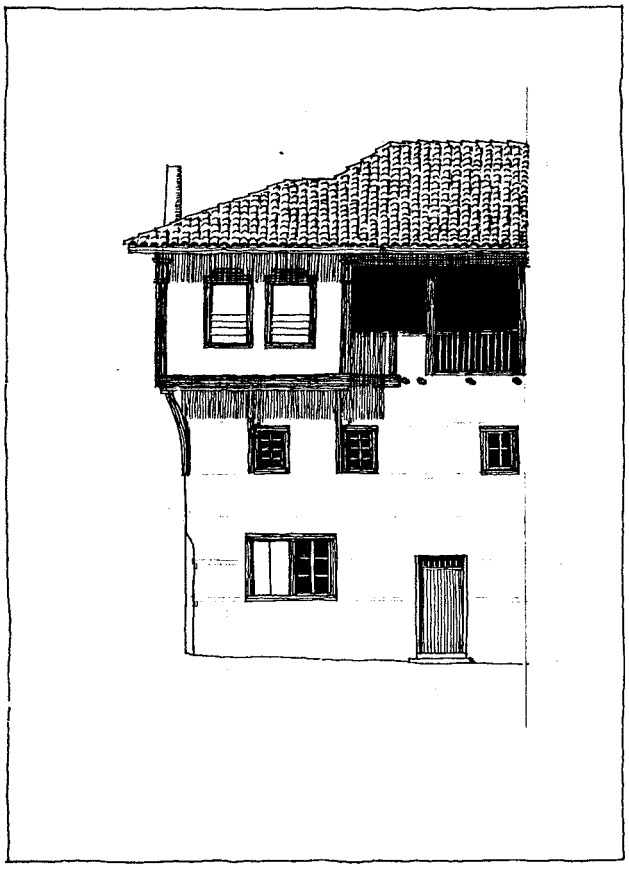


Fig. 66. South Facade of BA2w 1:150.

bedrooms made on the second floor before the Second World War.

Unlike Kanavas's part of the house, the other part is still inhabited and has had all the second floor walled up. According to the owner, Y. Asteriades, the second floor in this part of the house was left unfinished until some bedrooms were accommodated in the interwar period. The entrance to this house is from exterior stairs leading from the east yard to the first floor.

The house bears witness in many ways to the refined art of master builders: the roof is symmetrical, the tie layers make up a discrete decoration of the facades with doors and windows built into the system; only the two windows in the west facade of the second floor do not conform to the tie layers, and it seems that the north facade of the same floor has also been meddled with and the system of tie layers broken.

Another characteristic feature is the refined joinery of chestnut, especially at the exterior parts of the *sachnissi* and the *chayati*: the ends of the projecting floor joists have been concealed with cover boards, and the weak transition from corner pillars to rendering has been concealed with wooden pilasters. The great eaves of the roof at the *sachnissi* and the *chayati* protect the delicate walls of half-timbering against rain, and prevent torrential downpours from reaching the *chayati*. To make them more elegant,

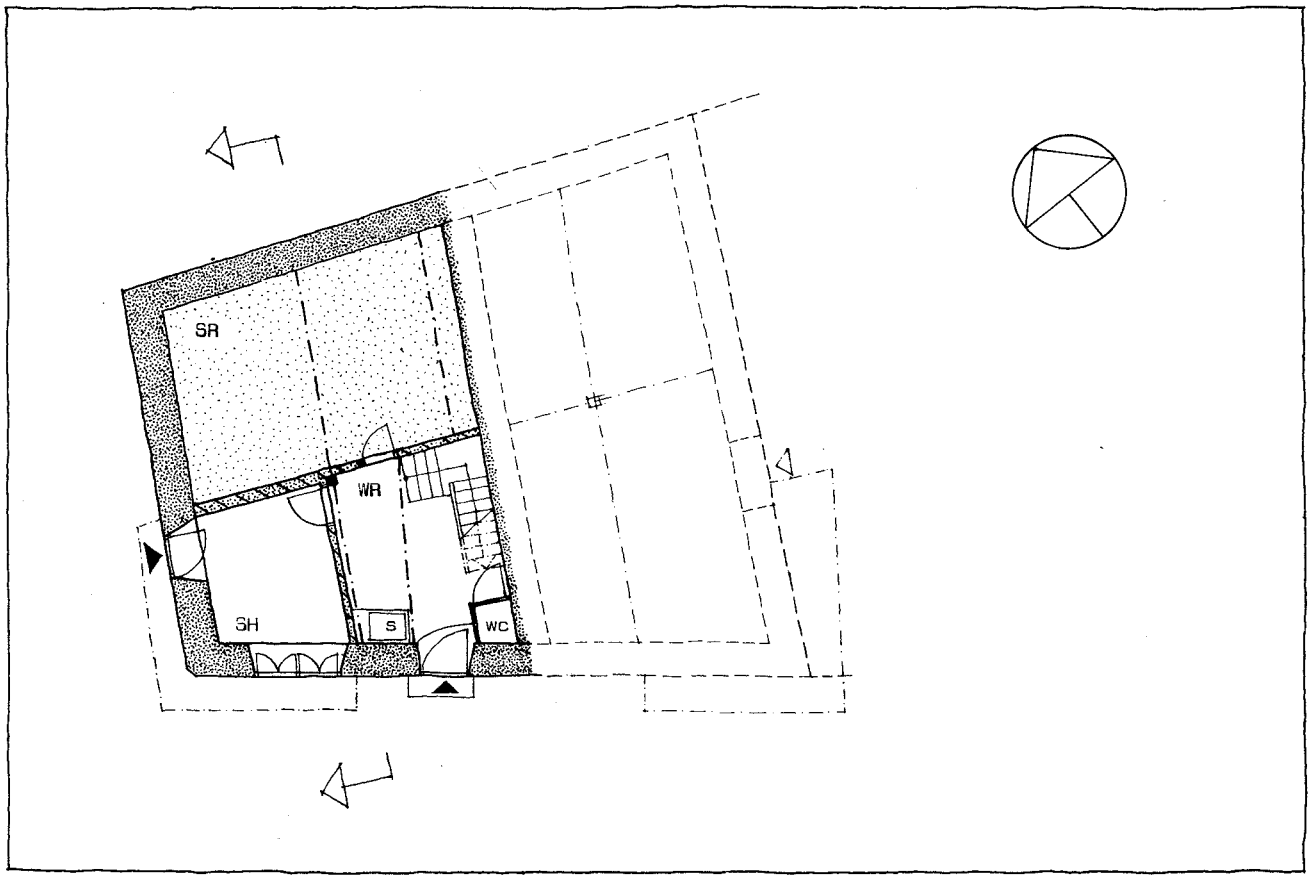


Fig. 67. Plan of basement in BA2w 1:150.

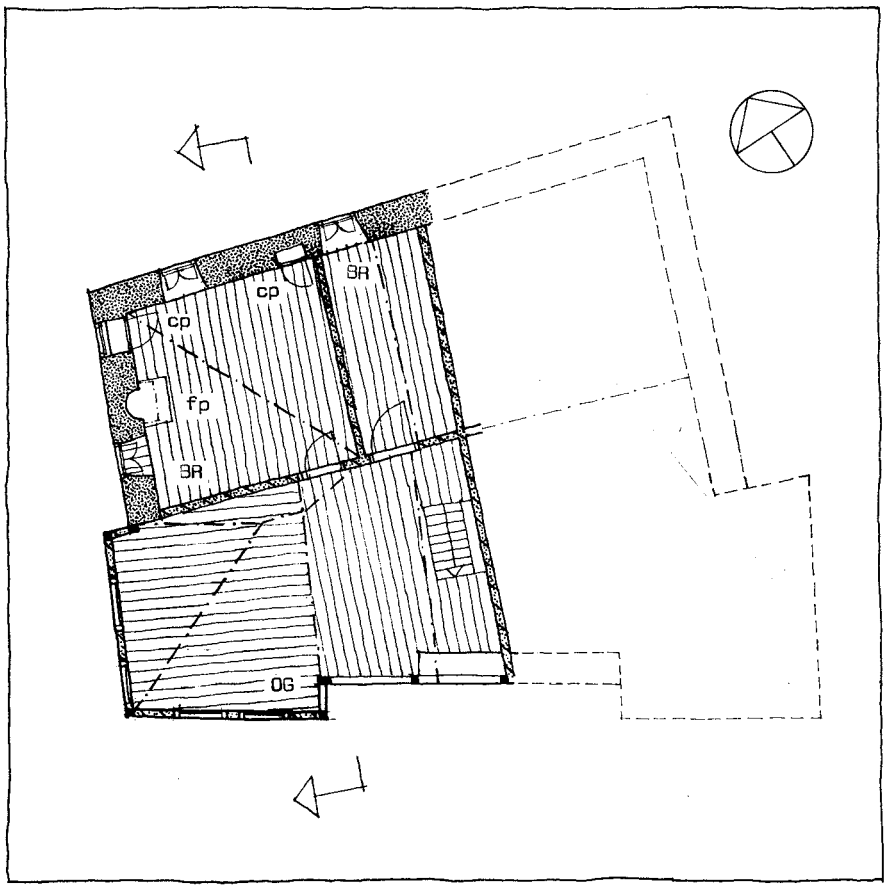


Fig. 68. Plan of 2nd floor BA2w 1:150.

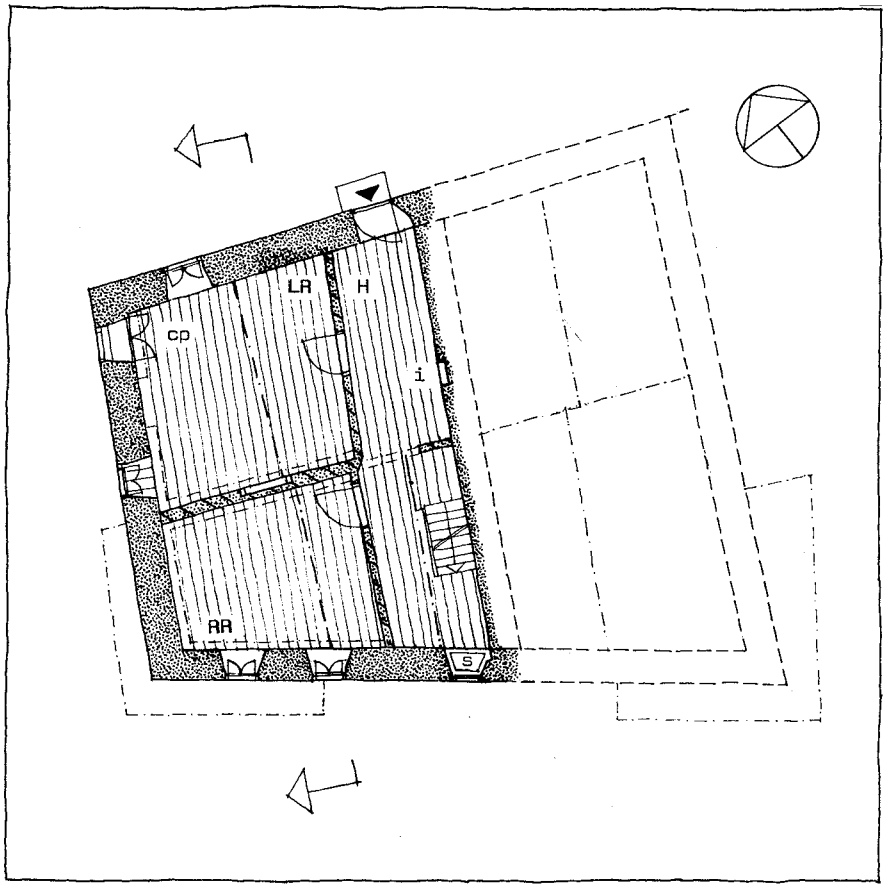


Fig. 69. Plan of 1st floor BA2w 1:150.

they had soffits of planed boards with moulded battens, just as the ends of the projecting beams were hidden with cover boards. The *chayati* originally had a parapet wall of half-timbering, but one panel was changed for a rail, when the owner had to demolish the wall down in order to accommodate a window with a sink on the first floor. The uneven timber of the pillars, the wall plate and the hand rail on the parapet was concealed with cover boards too, just like the extra tie-beam that here substitutes the usual capitals of the *pastas* house. The *chayati* could, as I have already mentioned, be closed off with top-hinged shutters.

The joinery is also refined in the interior of the first floor: the ceilings are made of planed boards with moulded battens covering the butt joints, and the beams have been concealed with moulded cover boards. Display shelves, typical of houses in the Anatolian style, are running along the walls on finely moulded consoles, and the doors to both rooms are panelled.

All these refinements are completely lacking in houses like those belonging to C. Goutsaris and D. Panelas and do indeed indicate that experienced master builders of both skill and aesthetic sense must have been at work on the Kanavas house. Even the small detail on the west facade (Fig. 70) with brackets diminishing towards the centre of the house can be due to nothing but aesthetic consideration, but the strange fenestration on the *sachnissi*, with one window stuck to the pilaster at the corner, is not a happy solution and is no doubt due to some request of the client, who wanted to obtain a better view to the main street (91).

The basement till recently functioned partly as an extension of the dwelling. A door had been made towards the street, and the small anteroom was used as a scullery with a toilet accommodated in the corner. The room to the south west was a small shop, which also has a fine ceiling of chestnut boards with battens, giving this shop an unusual air of distinction, but one should not forget that it was situated on the most important street which would have given the owner the opportunity to sell products of his silk industry to passing tradesmen.

Stairs lead to the first floor which was the only living quarters of the family until the bedrooms were accommodated on the second floor, a long time after the house was originally built. These stairs are without any refinement, and were obviously made when the house was divided, which can be seen in the basement, where a beam had to be transferred towards the west to create an unobstructed passage. The room to the north was the kitchen-living room and once had a fireplace with two windows symmetrically positioned on both sides, a very common feature of houses in the Anatolian style.

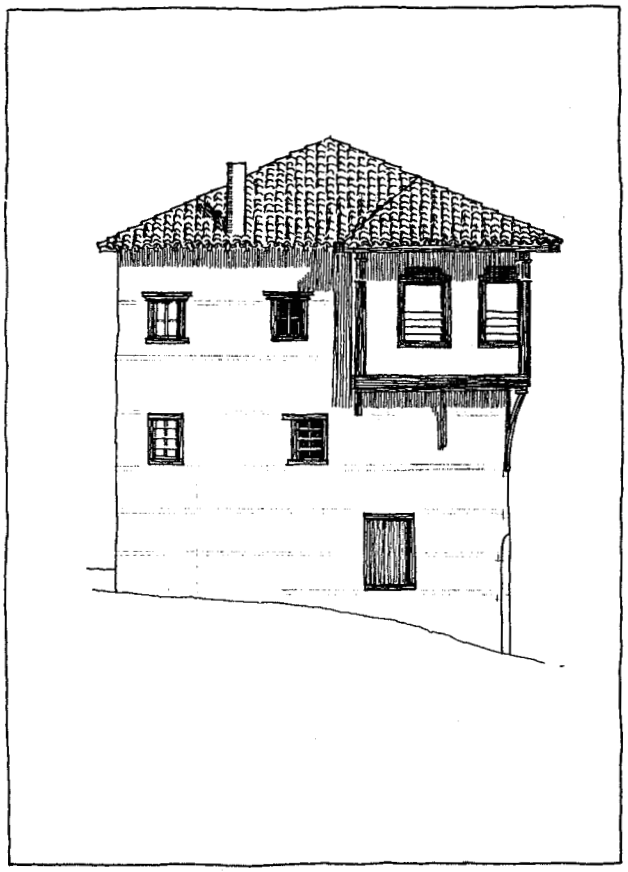


Fig. 70. West facade of BA2w 1:150.

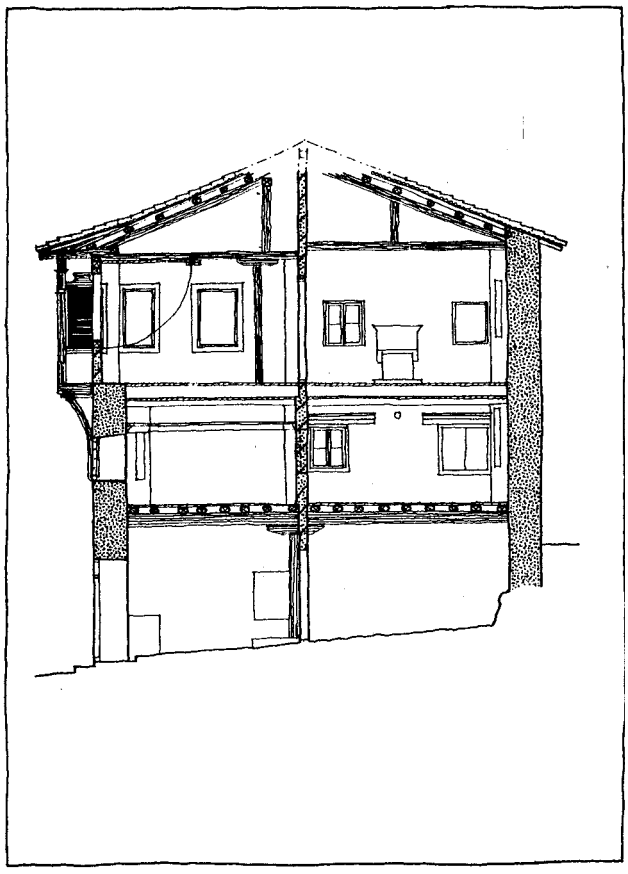


Fig. 71. Section of BA2w 1:150.

However, one of the windows was later walled up and turned into a cupboard, and the fireplace pulled down and replaced by a kitchen range, because it was smoking too much after the fireplace on the second floor had been built.

The small room towards the street was a reception room which could not be heated; there was once a window between the two rooms, of the same size and height above the floor as the windows facing south and west in these two rooms, but it has been walled up. The window may have served as a way to warm it up and to join the two rooms optically, when the occupants were holding family celebrations. There may also have been some demand for more official representation, as it should be remembered that councils of village elders, chosen among the wealthiest, were always held in their homes, until Galatista acquired its own administration building after the liberation from the Turks.

The entrance hall is a further development of the *eyvan* in earlier forms of the Anatolian house, where it would be an open room turning towards the south gallery and with access only from here. Later, when times were more peaceful, the room could conveniently be turned into an entrance hall, if the site permitted it (92). According to Kanavas there was once a stately wooden entrance door, but he had it replaced with a painted iron door.

The second floor was never finished to become the elegant reception area of the Anatolian prototypes, probably because both money and social background were lacking, and the two bedrooms are quite primitive in terms of workmanship compared to that of the first floor: they have no ceilings and no refined joinery. The stairs could be locked off with a trap door that was fastened with a hook.

Like many other houses in the same style, the lower floors often follow the irregular outline of the limited plot, while the form of the *sachnissi* serves not only to increase the corner rooms, but to make them more regular as well. It seems that some kind of law established how much the *sachnissi* could project over public streets, hence the different projections towards the broad main street to the south, the narrow by-street and the free open area of the private yard to the east.

When comparing Kanavas's house to the D. Panelas house (pp. 72, 65) it can be seen that the open gallery had by now gained further depth by turning the floor joists of the front part and letting them rest on beams at right angles to the facade. The house is now nearly symmetrical in section and the ridge is carried rationally by the longitudinal wall of half-timbering going through all three storeys. The Kanavas house represents further development of Type 3 to Type 4 (p. 54), but here an extra storey has been inserted between the basement and the first floor, as it was intended to be a mansion.

Houses in the Anatolian style had hardly any furniture in the Western sense (93). The usual equipment of a room in Galatista consisted of two divans, symmetrically placed on either side of the fireplace, and if there was no fireplace, they were usually placed parallel, opposite each other. Originally these divans were nothing more than mattresses on the floor, where people would repose or sit cross-legged in the oriental way. This is also the reason why many windows are low sitting in the oldest houses, as for instance in the Goutsaris house as already explained, and it is also the reason why the ceiling is often low. The same room could serve many different functions: the fireplace was used for cooking in winter, and when it was time to take a meal, a low table was set up in front of it. In the evening bedclothes were brought out for the night and stored away again in the morning. The spartan equipment was much embellished by the gay colours of homemade rugs and blankets.

When the Kanavas house was built, it must have been quite extraordinary, if there were no other similar houses that have disappeared by now, and so it came to serve as a model for ambitious house owners of lesser means, who had to use local builders without sufficient training and means to handle the new style (94). Today GH2e (Fig. 45) represents the only house that has any trace of such influence: the two small windows are framed to look like those on the Kanavas house, but without achieving the same elegant curves.

Further development. Later the Anatolian house seems to have been influenced by neoclassicism, which in particular can be seen from details like window framing (95). These houses, similar to townhouses, are usually two-storeyed in Galatista, and similar houses can still be seen in many other old villages and towns in Northern Greece.

Whether these houses represent rebuilding of an older house of the *pastas* type or a house that has been built new from the foundations, is hard to estimate without surveying each house. Still I am inclined to believe that the first is generally the case, because the tie layers are usually devoid of any elegance. These houses may very well represent part of the rebuilding some ten years after Galatista had been burnt down by the Turks in 1821 (cf. p. 23).

On the map (Fig. 72) are registered all the two- or three-storeyed houses that have been influenced by the Anatolian style, and possess a *sachnissi* (96), i.e. a projecting top floor. Distinction has also been made between prototypes and imitations.

Fig. 72. Anatolian style and its influence on the pastas houses.

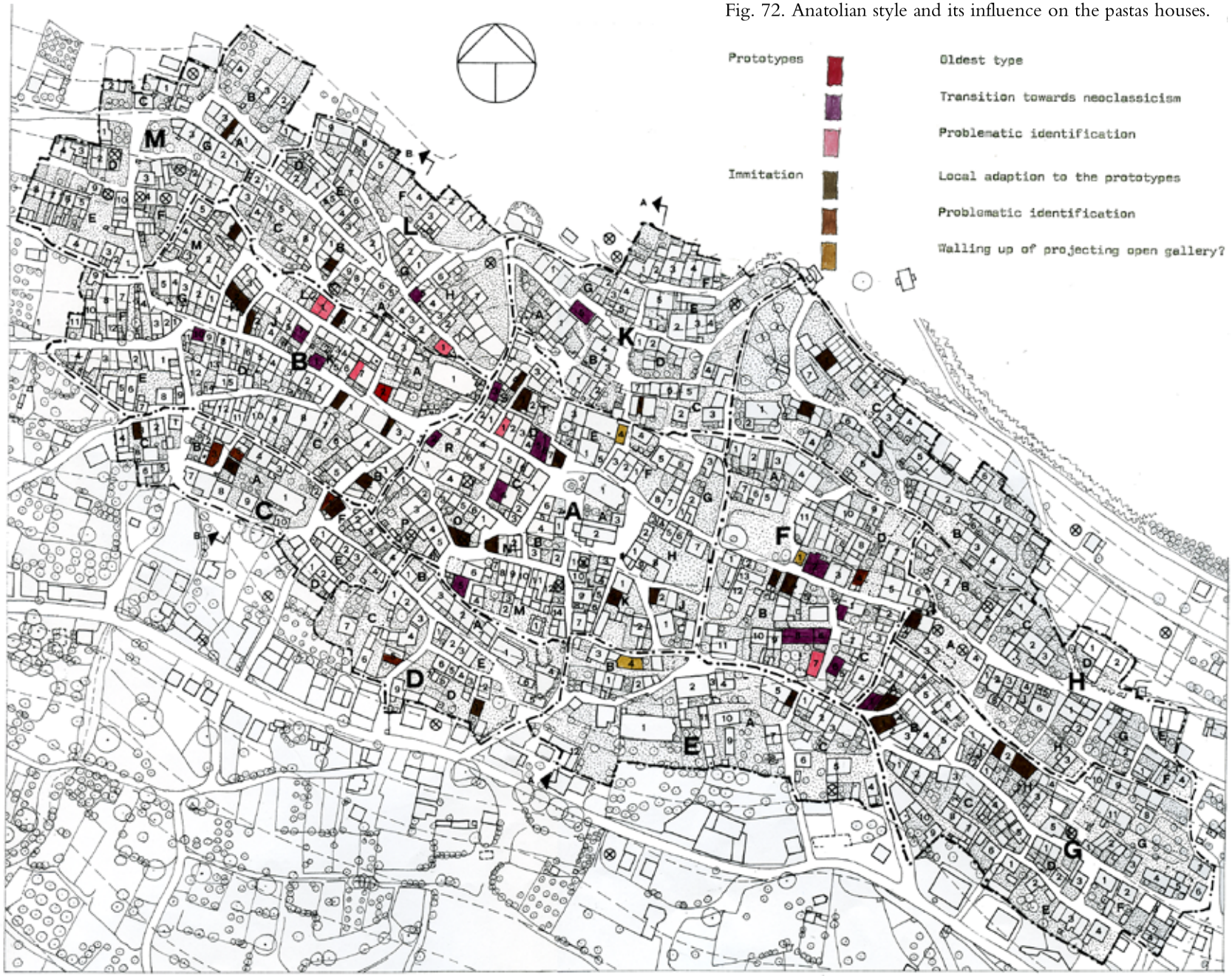


Fig. 73. BK1 seen from the east.

Fig. 74. FD2 seen from the west.

Prototypes. Looking at the map, Fig. 72, it is obvious that the best houses in the Anatolian style are found close to fountains, at the *agora* or along main streets, in other words at desirable sites, where one may suppose that the most wealthy resided, who could also pay for better craftsmanship and building materials.

Some of the houses that are situated on the main streets, such as BA2, BK1 (Fig. 73), FD2 (Fig. 74) and GA1 (Fig. 75), have a shop in the basement and dwelling on the first floor, showing that autarchy was slowly giving way to the capitalistic monetary system.

The *sachnissia* are always turned towards the south, a street and the view towards the valley, only on BC1 and BD l0 (Fig. 76) is the *sachnissi* turned towards the north, most likely because a view to the most busy street was considered more important than sun orientation and a view to the valley. Most of these houses had the *chayati* intact till recently.

There are many variations of the constructions of the *sachnissia*. The very best of them have had their eaves concealed with soffits and cover boards like on AM5 (Fig. 77), BA2w, FB8 and FD2 (Fig. 74). However, other houses may once have had the same detail too; BA2e (Fig. 78) is such an example: the roof had been destroyed during the Second World War, and was then rebuilt as it is today without soffits and cover boards.

Most of the *sachnissia* are projecting on brackets, but only a few of them project "around the corner" like in AC4, BA2, BK1 (Fig. 73) and formerly also BL1, which was largely rebuilt recently. A few have had the brackets covered up with laths that have been rendered, giving these houses an air of compactness: FB7, FD2 (Fig. 74). AR2 (Fig. 79) has a small *sachnissi* on corbelling which is otherwise an unusual solution in Galatista, and in two houses, BD10 (Fig. 76) and KB5 (Fig. 80) the brackets are very straight and uniform as if they were machine cut, suggesting that they belong to the last exemplars of the style.

The window framework was also subjected to change, and this is, I think, a detail that more than anything helps to determine the age of the *sachnissi*. The Kanavas house BA2w, with its curved window framework, is an offshoot of the Turkish baroque which flourished in Asia Minor in the 18th century, while houses like AD5, AD6, BJ7, BK1 (Fig. 73) have a framework of neoclassical influence. Later the framework becomes even more plain at the same time as the windows become still larger as in AR2 (Fig. 79), FB8, FD2 (Fig. 74) and GA1 (Fig. 75), while a detail such as wooden corner pilasters seems to be entirely omitted in AR2 (Fig. 79), BD10 (Fig. 76) and KB5 (Fig. 80).

GA1 is an interesting house (Fig. 75). Somehow it

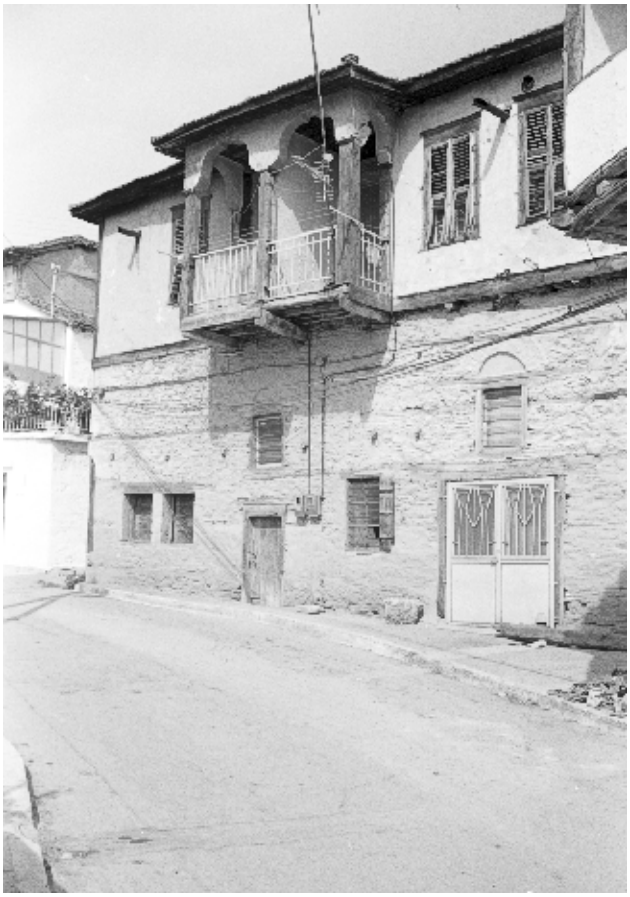


Fig. 75. GA1 seen from the south-east.

Fig. 77. AM5 seen from the east.

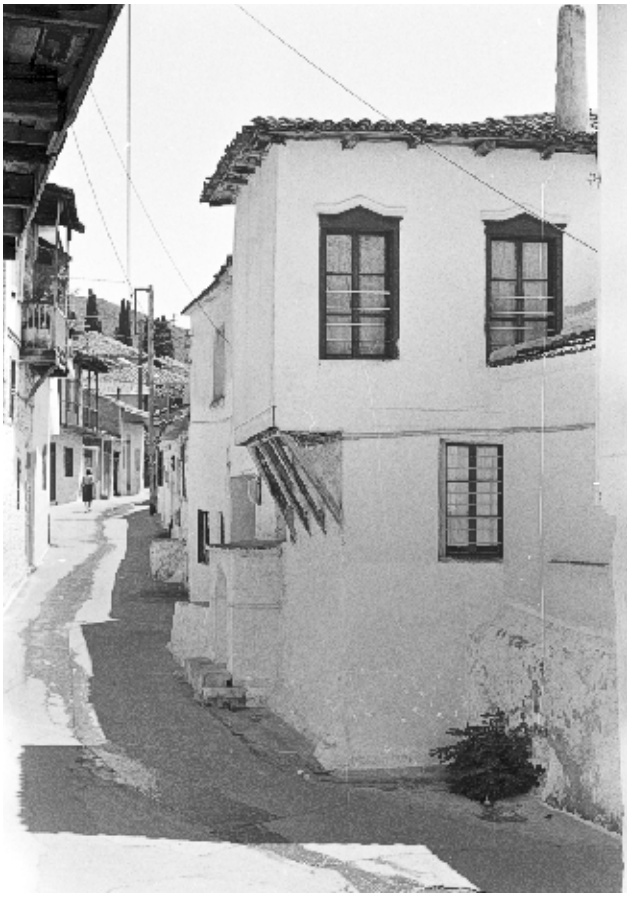


Fig. 76. BD10 seen from the west.

Fig. 78. BA2e seen from the east.

Fig. 79. AR2 seen from the north.

Fig. 81. GB1 seen from the west.

Fig. 80. KB5 seen from the southeast.

Fig. 82. GH2w seen from the south.

represents a clear transition from Anatolian style to neoclassicism: the *chayati* has been reduced to an open lobby in the middle axis of the house and it ends up in a small balcony with windows symmetrically positioned on both sides of it, the characteristic feature of neoclassical town houses made of stone (97). Yet the balcony has pillars connected with hipped arches, a type common in Ottoman architecture (98). The big windows have blinds with slats, which is unusual in preindustrial houses in Galatista, but when they are present, it is usually on houses that are influenced by neoclassicism.

Imitations. These new houses must soon have been copied by local builders, because it was a relatively simple way to extend the family dwelling on the open gallery at the same time as it added some prestige to the owner by showing that he was up-to-date. These imitations are naturally without any finesse and the challenge of building "around the corner" has never been taken up either, except on GB1 (Fig. 81) (99), which is otherwise a very remarkable house because of its plan on the second floor: the *chayati* is here rather a projecting balcony with a parapet of half-timber work and the chimney *bouchari* is located, unusually, on the wall towards the *chayati*, and not between the two windows in the side wall, which is the normal solution in Galatista (e.g. AK3 and GH2w (Fig. 82)), but here it may be due to lack of space.

Sometimes the *sachnissi* seems to be rather more the result of walling up a protruding gallery, as for instance in FD1 and EB4 (Fig. 60). The latter seems originally to have had a projecting open gallery that was partly walled up, forming a kind of *sachnissi*, even with a small primitive spy window facing the direction of the street, and with a *chayati* left in the middle of the house (l00). Finally this was also walled up, and the small neoclassical balcony was all that was left as an exterior room.

Most imitations represent further development of the *pastas* house Type 4 (cp. p. 54), where the local builder has managed to build a *sachnissi* simply by letting floor joists project at the end of the open gallery towards the street. There are many houses in Galatista that have had a *sachnissi* built in this way, and perhaps A. Matsoukis's house is the most interesting, because it is one of the biggest and probably also one of the very oldest belonging to Type 4.

A. Matsoukis house.

The Matsoukis house BB2 (Figs. 83-89) belongs, like the Kanavas house, to the few three-storeyed houses in Galatista (cp. pp. 71-73). It also has a *sachnissi*, but judging

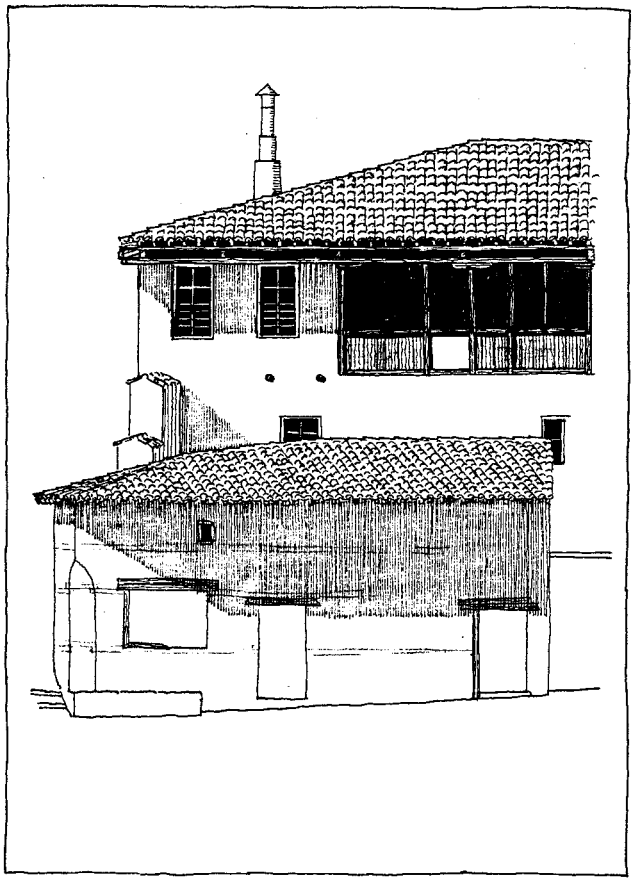


Fig. 83. South facade of BB2w 1:150.

from the size of the windows and also their framework, it belongs to much later times, to late neoclassicism, and they do indeed evoke the windows of the south facade on the C. Goutsaris house (Fig. 50). The *sachnissi* of the Matsoukis house is also an addition to a house of much greater age, and like the D. Panelas house (pp. 64, 65) it represents further development too from Type 2 towards Type 4 (p. 54), the gallery being only about 0.5 m deeper than that in the Panelas house, but this difference may have been enough to force the builder to turn the joists of the front part and let them rest on floor beams spanning between the facade wall and the longitudinal partition wall. This solution may very well have come about when rebuilding, and a convenient staircase was built with one part of it even going along the facade on the top floor. This solution made it at the same time more simple to construct a *sachnissi* protruding on joists over the street. However, the front part is not yet as deep as that of Kanavas house (Fig. 71), and so the roof is also not symmetrical. In contrast with the D. Panelas house, the ridge is here carried by the longitudinal wall of half-timbering, and it goes up through the whole house, which is undoubtedly a constructive improvement.

In the west facade is a strange arrangement, not otherwise seen in Galatista: the niche and the buttress at the

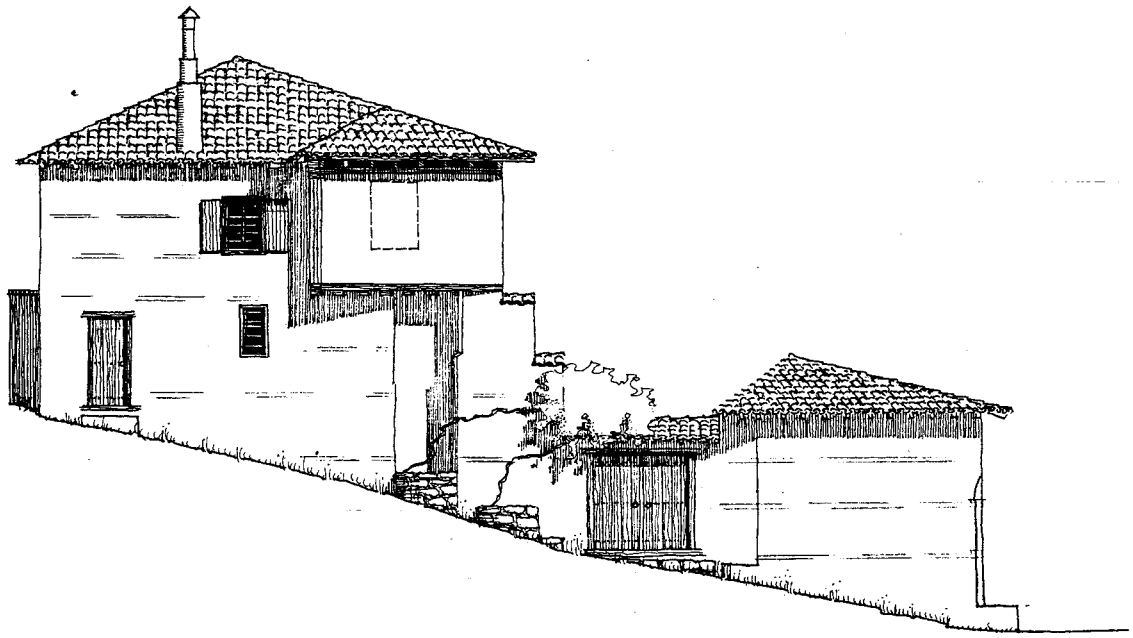


Fig. 84. West facade of BB2w 1:150.

south west corner towards the gate to the street. The niche, I believe, may have come about to evade some rock formation in the basement, and the buttress was then made to reinforce the south west corner, as the niche had disrupted the adhesion of the tie layers in the walls. Apart from this the continuity of the tie layers in the whole west facade is a sign that it was all built at the same time.

Just like the Kanavas house, the Matsoukis house was also originally one single large house that was later divided with a cross partition wall, but it happened so

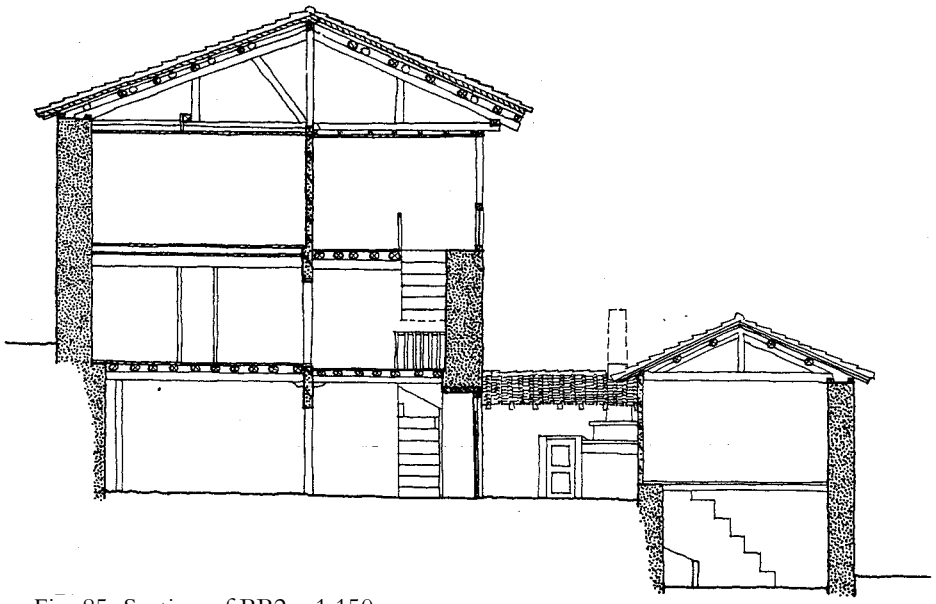


Fig. 85. Section of BB2w 1:150.

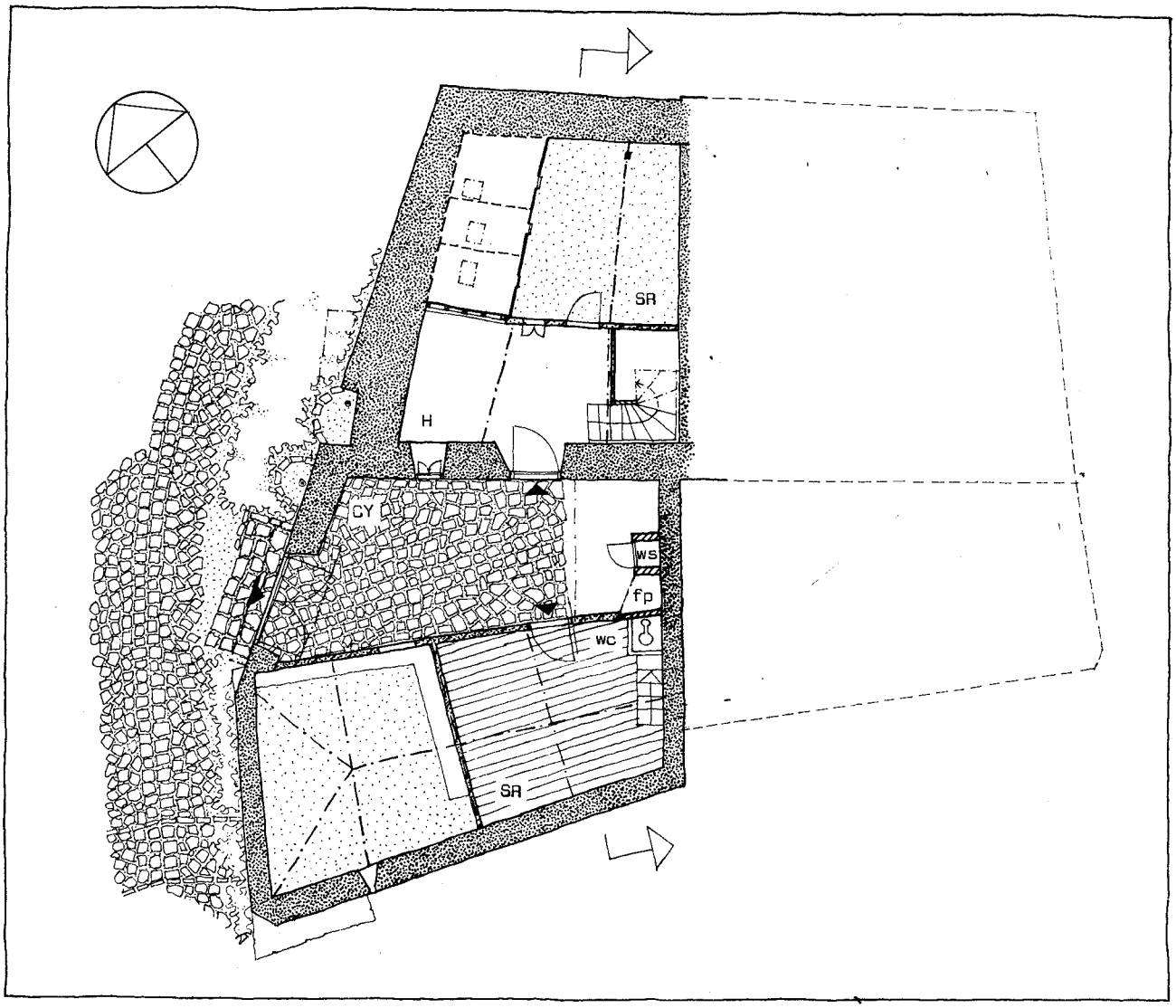


Fig. 86. Plan of basement in dwelling, 1st floor in outhouse BB2w 1:150.

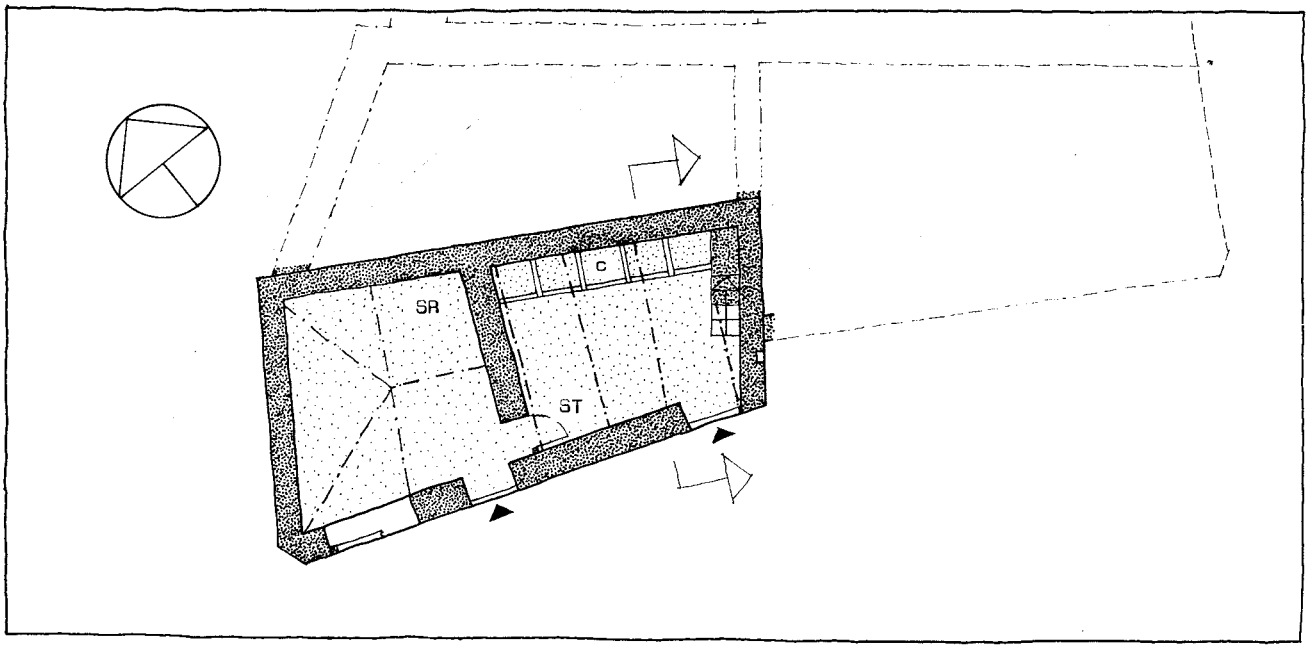


Fig. 87. Plan of basement in outhouse 1:150.

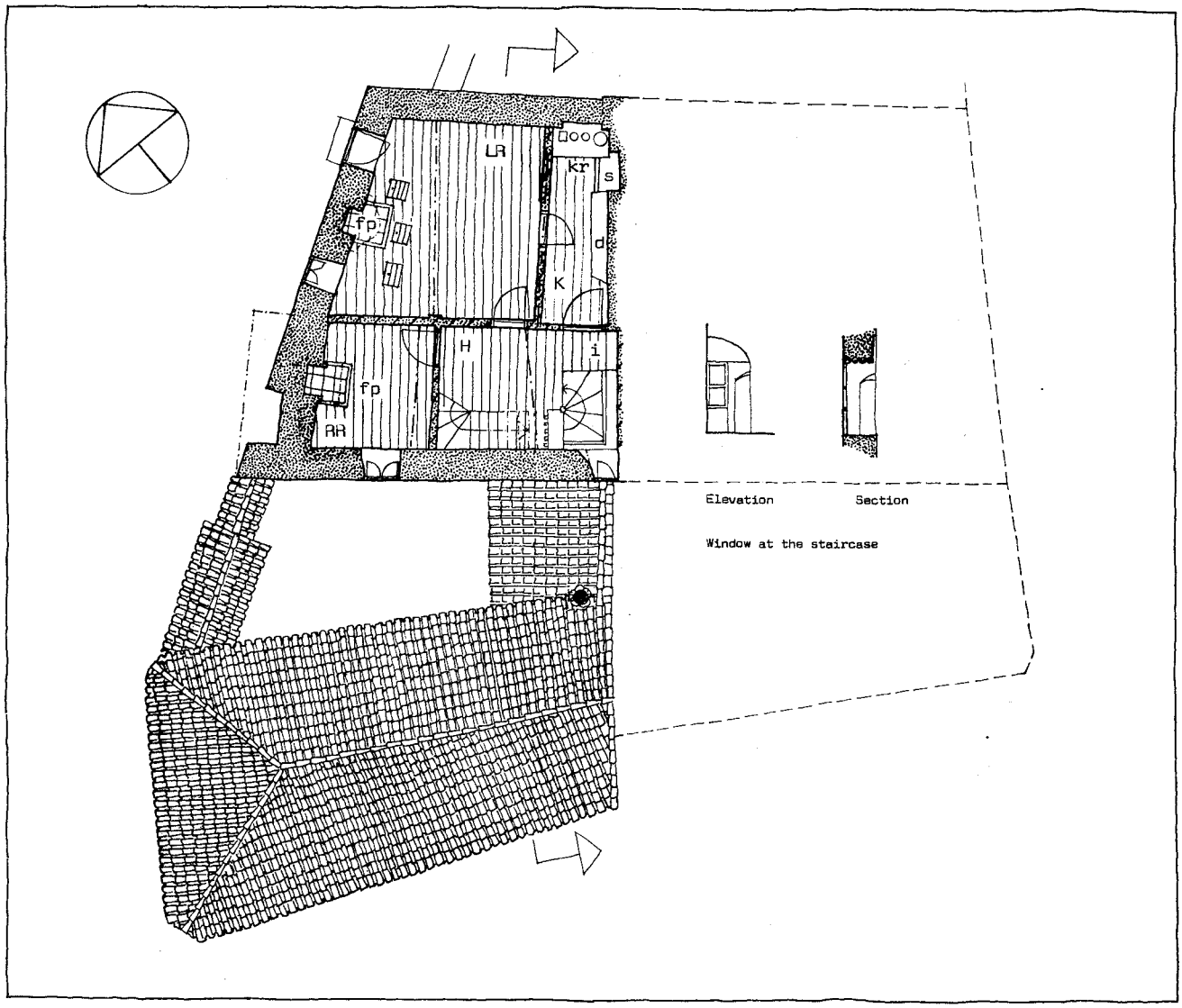


Fig. 88. Plan of 1st floor BB2w 1:150.

long ago that the neighbours are no longer relatives, and an iron sheet has been set up on the facade of the *chayati* towards the neighbour to prevent peeping in. When the house was shared, they even had to divide the window on the first floor above the staircase, but the structure shows that it was originally the main entrance to the living-quarters: the window sill is level with the floor, and there is an arched indentation in the wall above the window not found above any other window (Fig. 88). The full height is only 156 cm, probably for reason of defence as elsewhere in Greece (101). The owner actually confirmed that the main entrance was originally here, and the previous generation had the external stone-built staircase leading up to the door, removed and replaced with the present wooden staircase, probably in the interwar period.

The main entrance to the yard is from the double-leafed gate in the west facade, and it has a typical porch roof. The yard is paved with slabs in such a way that it could be drained off at the street. In the south east corner is a fireplace, where large cauldrons could be put on the fire for different household tasks, and beside it is a small store for firewood. The working place has been sheltered from the weather with a shed roof covered with French tiles.

Like the Kanavas house, there were storerooms in the basement, while the stable was in the outbuilding with direct entrance from the street to the south (Fig. 87). The same development could be seen in other parts of Greece: when the owner had obtained a certain affluence and times were peaceful, there was a strong tendency to move the stable out of the house to get rid of the stench (102). The three grain depositories have lids in the floor of the room above them but this is a special case due to the occupation of the owner who runs a bakery in AR3.

The first floor was the winter dwelling with fireplaces in both rooms towards the street. The room to the south,

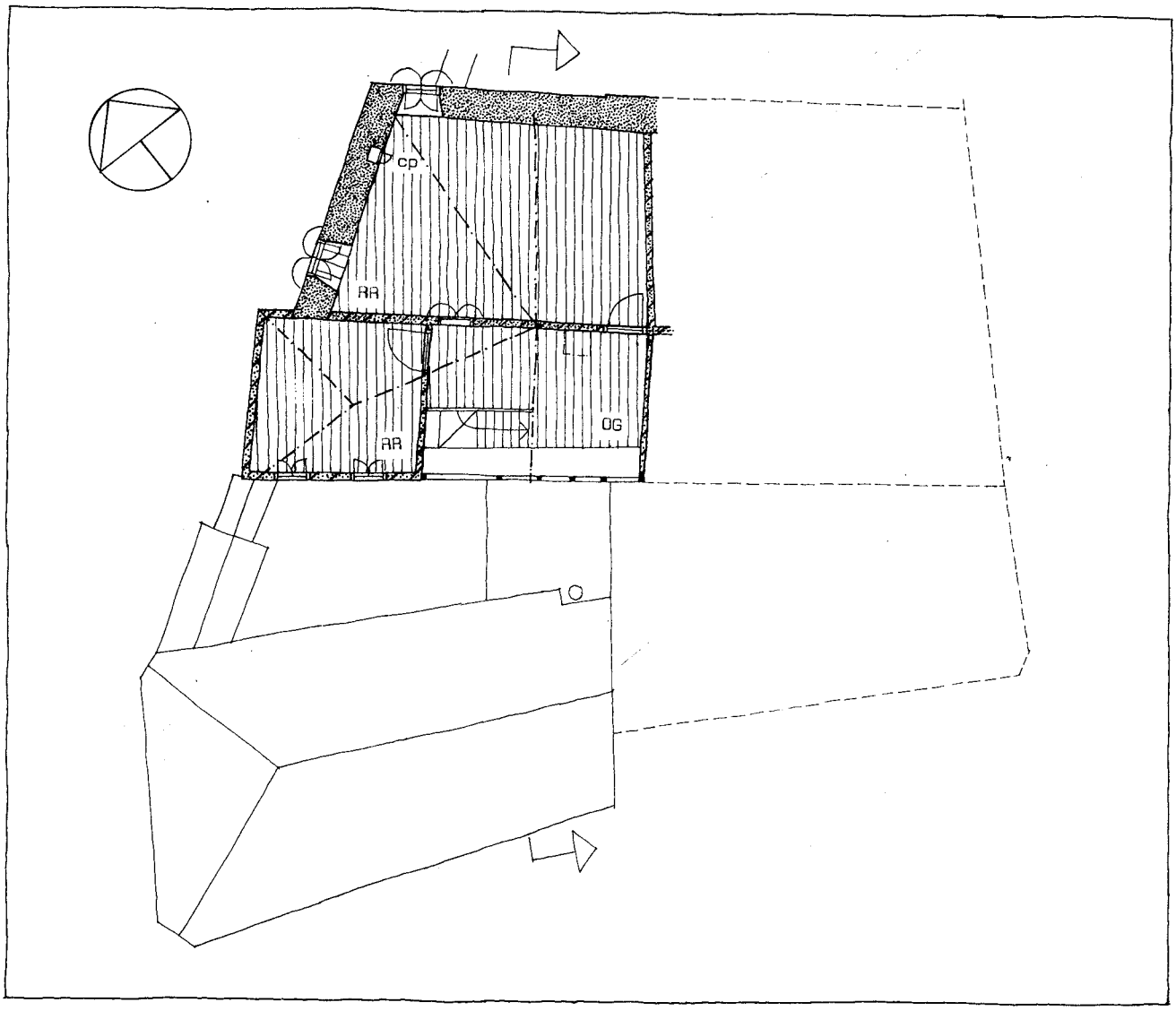


Fig. 89. Plan of 2nd floor BB2w 1:150.

with its planed board ceiling of the usual type already described, was apparently a reception room, most likely by drawing in this part of the closed gallery, but when the *sachnissi* was made on the second floor, the chimney was simply cut off and a stove set up with its pipe protruding in the west facade.

The door in the west facade is of recent times, and it detracts in some way from the usefulness of the room to which it gives admittance. The little light coming only from one small window makes it even more disagreeable but the room must no doubt originally have been designed differently, perhaps with two windows symmetrically on either side of the fireplace.

A real kitchen, without daylight, has been accommodated in the small room to the east. It has a sink and a primitive kitchen range built in, and there was even room for a narrow dresser with a plate rack on top. This room was probably originally only a store room, since it could have neither a door nor a window towards the neighbour to the north, and this seems to be quite a common solution for three-storey houses in other parts of Greece (l03). It is also possible that it was once part of an *eyvan* before the house was shared.

The second floor gives the impression of having been set up for representation or summertime living, and as such it follows the prototypes. The joinery is refined, especially the ceilings of the usual chestnut boards, but here in the Matsoukis house even the *chayati* has being given such a ceiling. The small room was the traditional guest room, but the large room would hardly have been rigged out so finely, if it was only going to hold casks with silkworms, for this was the only use known to the present owner.

Silk production took place not only in the large houses of Kanavas and Matsoukis, but also, and to an even greater extent in the large *archontiko* EA2, which had a special workshop with boilers, where the silk cocoons were soaked in warm water to loosen the silk

Fig. 90. The archontiko EA2 seen from the southeast.

Fig. 91. JB4e seen from the east.

thread (104). Such extended home industry was formerly found in the mansions of many other Greek towns and villages like Kastoria and Siatista: furriers; Ambelakia: a famous cooperative of dyers doing business all over Europe; and Makrinitsa: silk industry and dyeing etc. (cf. Fig. l).

The wealth that this trade created can today be seen in the often magnificent *archontika* in these places.

Early neoclassicism. The large *archontiko* EA2 is clearly influenced by neoclassicism, a style that obtained more and more footing after the Greek war of independence, when the cultural centre in the free parts of Greece had shifted from Istanbul to the new capital, Athens, in 1833 (105). The best houses in Athens were built in this style, influenced by architectural currents in Europe, and with roots in Greece's own past, it went right to the heart of liberated Greeks, looking for new prototypes and new identity (106). From Athens this style soon spread to other parts of Greece, where mansions and middle-class houses were adapted to it, though still conforming to traditional ways of building (107).

In Salonica the situation was different due to its strong trade connections, so the influence was versatile, coming not only from Europe, but also from Istanbul, where neoclassicism had appeared already in the beginning of the 19th century (108). However, the style did not gain footing in Salonica until after 1880 (109).

The mansion in Galatista is still basically a longhouse, Type 4, with a longitudinal stud wall going up through the middle of the house, but the dimensions are enormous compared to the peasant houses, and the quality of building materials and craftsmanship so much better: obviously yet another work by master builders. The south facade is still half-timber work on the top floors, but there is no more room for playing with sculptural themes like *sachnissi* and *chayati*, all is neoclassical restraint and sobriety, and the symmetry has been emphasized simply by the closer setting of the windows in the middle (Fig. 90). This motif can also be seen on other neoclassical houses in Greece, for instance on some mansions in Makrinitsa (110). As for the age of the mansion in Galatista it is not much more than a hundred years (111).

E. Panelas house.

Only two houses in Galatista seem to be adaptations of the same austere neoclassical influence, and one of them is E. Panelas's house GC3w. This house represents, I believe, a later development of Type 4 (p. 54). The open gallery is still intact in the full length of the south

facade, but it has been screened off to the west, thus forming a small outdoor room, a counterpart to the "kiosk" of the Anatolian house. The protruding *sachnissi* of the Kanavas house has here been withdrawn to become a plain half-timber wall flush with the rest of the facade. Today the house is all whitewashed, but there is no doubt that originally there would at least have been some clear contrast between the rubble wall and whitewashed half-timber work, which would have given the facade some less blurred appearance, than is the case today. The builders did not manage the transition from wood to rendering by using wooden pilasters and cover boards as on Kanavas house, and if the half-timbering was all covered with rendering, which seems to have been the case, it was some weak technical solution as well, especially at the corner, at the transition towards the rubble wall and towards the open gallery. The same problem is apparent in the other house in the same style, JB4e (Fig. 91) (112), and is most likely due to builders who actually tried to imitate neoclassical stone houses at the same time as they were still adhering to traditional building methods.

One would like to think that the walling up of the open gallery is a later addition, but this is definitely denied by the owner and is moreover confirmed by the fact that the capitals of the half-timber wall were apparently not given the same elaborated shape as those in the open part of the open gallery.

The outdoor room has two closely set windows in the south facade, like in JB4e, and it is tempting to compare this motif with the equivalent in the large mansion, as mentioned above. It is quite possible that these two houses conform to new ways of building, as expressed in EA2, but the necessity of a *chayati* prevents a symmetrical solution on a small house. It was not until later, when glass panes had become cheaper and had made the *chayati* superfluous as a working area in the open, that symmetry was introduced to the peasant house, if it was not too small, and the whole open gallery could be walled up at the same time (cp. Mastrokostas house p. 94).

The construction of the floor diverges from the usual way applied to other houses: there is only one layer of timber consisting of alternatively thick and thin joists, at about 60 cm distance, held together by a tie beam in the middle. The joist that is close to the west wall, has been tied to this with a number of small joists, joined at right angles to the main joists and resting on a tie layer in the wall.

The unusual floor construction, the furring of the roof and the well executed joinery indicate that the house was not built by native craftsmen. The framework

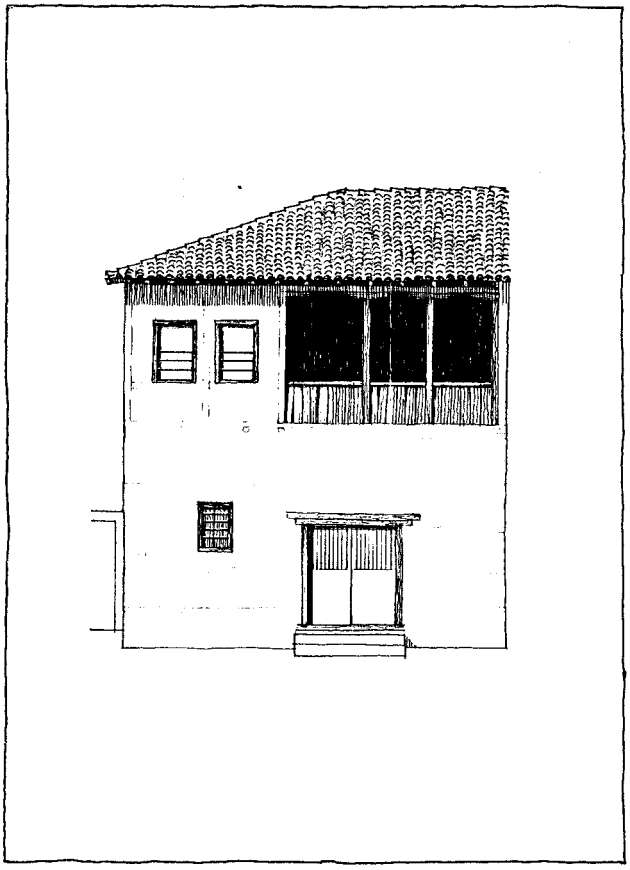


Fig. 92. South facade of GC3w 1:150.

of doors and windows conforms in style to that of houses in late Anatolian style.

The house has not been changed much since it was built, only a small kitchen dresser with a sink and a tap has been built in flush with the staircase. Here was once a door to the neighbouring house, which was occupied by a brother of the present owner's father.

The basement is very spacious but not used for farming anymore, as the owner is a worker. To the west is a trap door directly to the street, which is rather peculiar when considering with how much care direct openings to the street from the house were avoided for reason of protection against assault. Still the trap door may be a later addition. The double door to the basement could be locked off with a sliding wooden bar in the same way as in D. Panelas's house (p. 64) (113).

A comfortable flight of stairs leads up to the open gallery that gives admittance to two rooms: the living-room to the east and the reception room to the west. The family living room was the framework of everyday life: cooking, eating and sleeping would take place here, especially during winter, and it has a barred window towards the staircase enabling the occupants to keep an eye on the comings and goings, just like in the D. Panelas house.

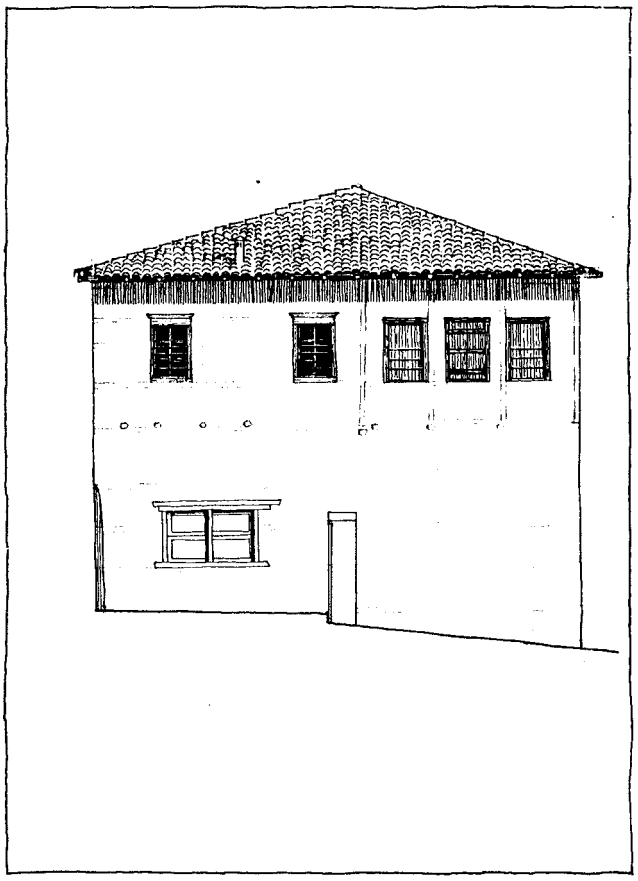


Fig. 93. West facade of GC3w 1:150.

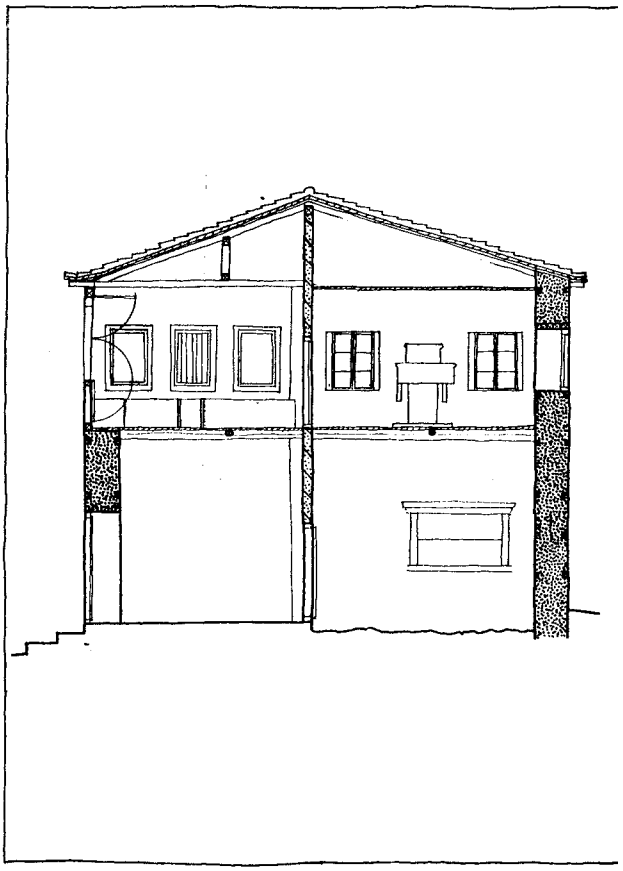


Fig. 94. Section of GC3w 1:150.

The reception room still has the characteristic motif of the Anatolian house: an open fireplace with two windows symmetrically positioned on both sides. A window facing north has been walled up and converted to a cupboard. There is also here a ceiling of planed chestnut boards with moulded battens covering the butt joints.

The outdoor room on the open gallery reminds one of the open summer salons of Anatolian houses (114), but here people were now sitting on fixed benches along the window walls in the West European way, and not squatting on the floor as in the Anatolian house. This arrangement is also found in front of windows in the large mansion EA2, and confirms once more the interrelationship between the two houses (115). The benches in the Panelas house are equipped with sliding lids in front, so they could be used for storing.

The open gallery could be adapted to changing weather conditions: the open part could be closed with hinged shutters, as shown on the section, and the outdoor room by shutters, hinged or not. The inmates could in other words make the best of it in all kinds of weather: it could be shut off against cold winds and torrential rain that would flood the basement, but opened up in fine weather to give admittance to cooling breezes in summer, or opened up when the conditions were right just to enjoy the magnificent view down towards the valley in the company of friends and relatives. To me there is no doubt that the open gallery here had reached its most advantageous form functionally.

According to the owner the house is at least two hundred years old and originally built for a priest, but I believe that the house is an adaption of the neoclassical prototype of a much older house with its crude rubble walls and tie layers, that do not compare to the better quality of craftsmanship on the first floor.

The whole house is of unusual spaciousness compared to most peasant houses, and as such it represents further development towards the middle-class house, and so it is also quite possible that it was rebuilt for a priest; they were formerly often picked from the upper classes but still doing some farming, as mentioned before.

The map in Fig. 97 shows the only houses representing this style in Galatista, but there may have been other adaptations other than GC3w and JB4e, which have either been rebuilt beyond recognition or else pulled down. Still this scarcity may also bear witness to the poverty that was prevailing during the last decades of the Turkish occupation (cf. p. 23).

Late neoclassicism and eclecticism. The map in Fig. 98 bears witness to a veritable boom of building activity, going back to a period from the liberation in 1914 and

up to a few years after the Second World War, and now we are at least on more firm ground for dating the houses: many of the owners still remember when their house was built or rebuilt, and there are now even slabs on the walls commemorating that year (cf. Fig. 99). The increased building activity can be explained, I believe, as a direct result of the liberation and the consequent relief from heavy Turkish taxations, but also by Venizelos's land reform in 1918, which reduced the landed property of the large landowners, making it possible for the tenants to buy the land they tilled (cf. p. 23). This same land reform may also explain why the two large *archontika* have been left uninhabited for years. Finally the new carriage road from 1917 must surely have made building materials more easily available, and cheaper, which must have applied to window panes and lime mortar, the first making the *chayati* superfluous, the latter tie layers in new buildings.

On the map Fig. 98, all houses are registered that have been influenced by late neoclassical or eclectic architectural currents. A few of them are well-built, similar to townhouses, that as usual have served as models for the less affluent, though a new phenomenon emerged at the end of the period: it is sometimes difficult to tell whether such a house is an imitation or not.

Late neoclassicism and eclecticism flourished in Salonica in the beginning of this century (116), but in Galatista it is no more than a faint reflection of an often rather sumptuous style. Common to the prototypes are that they are now entirely built with walls of quarry stones from the quarry to the north west of Galatista and without tie layers, but the clay mortar was, as far as I can judge, now mixed with lime, and the greater adherence has made the tie layers superfluous at the same time as the thickness of the walls could be somehow reduced.

The prototypes always have symmetrical facades, at least on the top floor, and a small balcony in the middle with an iron railing. All visible facades are rendered and equipped with architectonic details in stucco relief, often painted in contrasting colours to the rest of the facade that is either whitewashed or lime washed in pale ochres. The windows are now tall and often have blinds with slats, and the doors are panelled and usually have glass panes.

In the *agora* there are a few of the very best examples: AE1 and AK2 (Fig. 100 & 101), the first perhaps being closer to eclecticism and the latter to late neoclassicism. As for AK2 it is worth noting that two windows have been walled up and the balcony has disappeared, because this type of house was too exposed to the weather here on the slope, and was not suited to the life of a farmer (117).

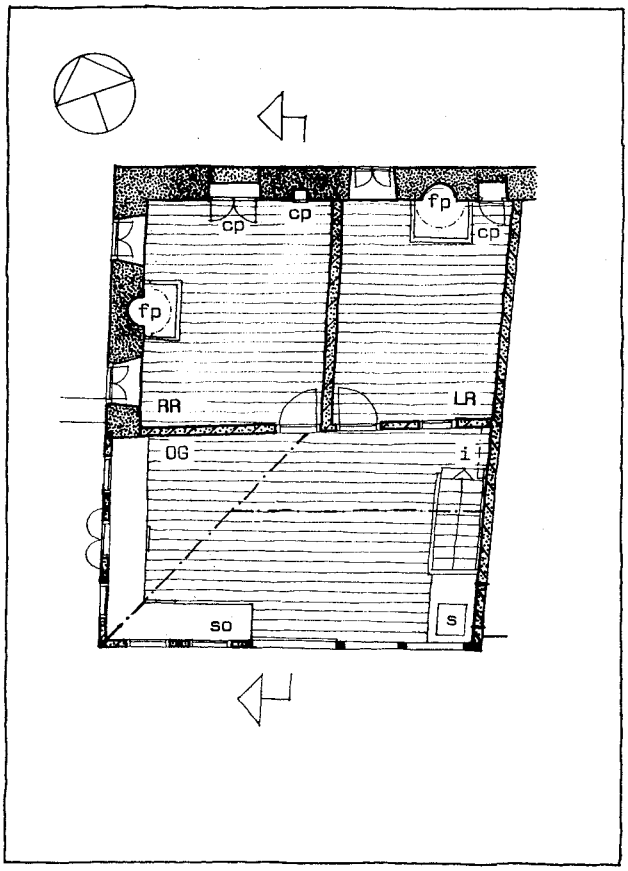


Fig. 95. Plan of the first floor in GC3w 1:150.

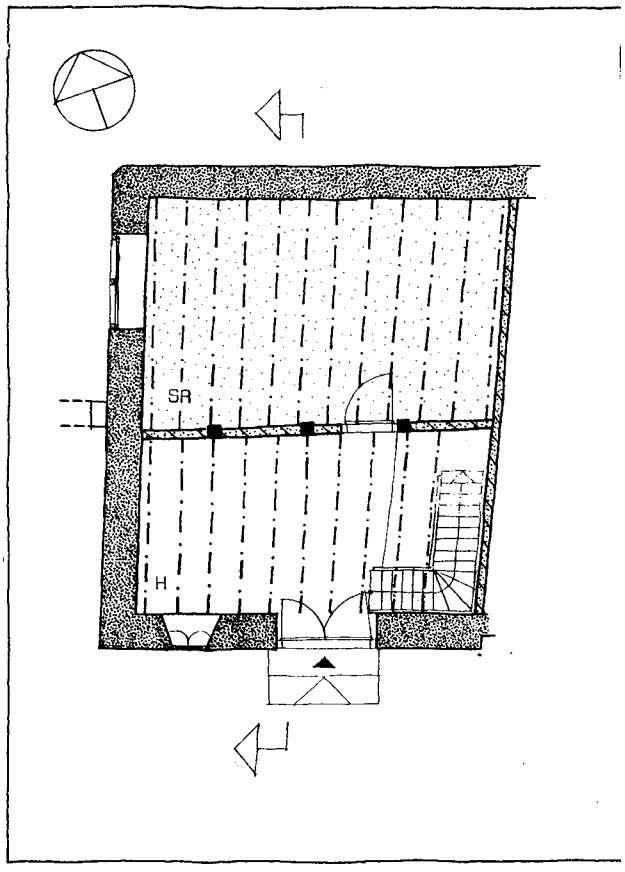


Fig. 96. Plan of the basement in GC3w 1:150.

Fig. 97. Early neoclassicism.

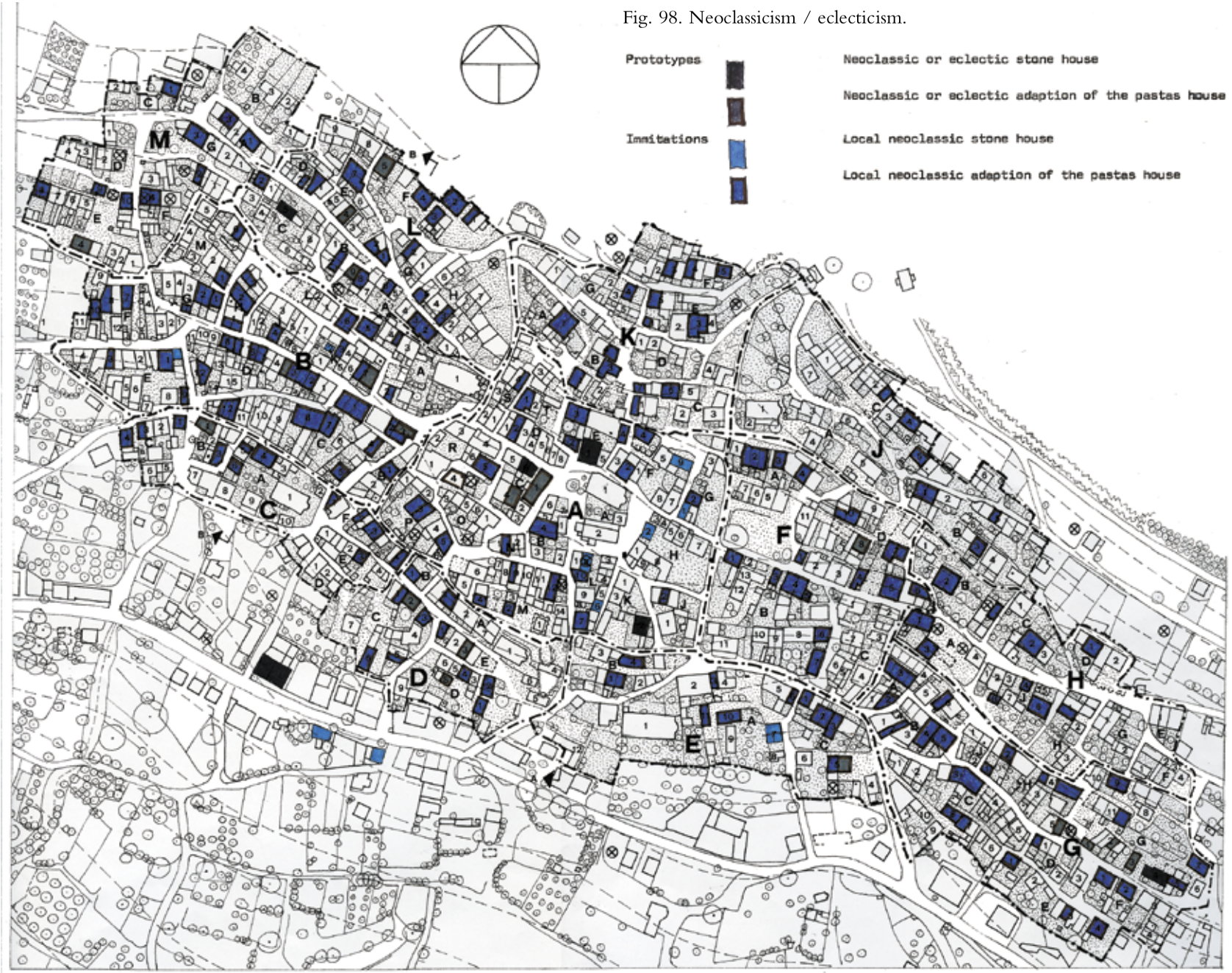


Fig. 98. Neoclassicism / eclecticism.

Fig. 99. Dated neoclassic / eclectic houses.

When the *pastas* house was adapted to the new style, the best of them always had all the *chayati walled* up at the same time, which adds to the unity of the house. Strict symmetry is only found in houses where the facade is broad enough to allow for a symmetrical plan (cf. Mastrokostas house p. 94), and the *chayati* has been replaced by a narrow balcony running along the facade. In other houses where the facade was not broad enough, the only symmetrical element is the door to the lobby with two windows close to each side. In such houses there is also a balcony running all along the south facade with the characteristic neoclassical railing consisting of a wooden top and bottom rail with round iron bars stuck into them. The balcony normally has a roof, which is independent of the main roof (Fig. 102). Sometimes these adaptations were also equipped with stucco reliefs, as on EC5e (Fig. 103) and LF5, or a moulded cornice like on BK7e, but common to them all are their tall windows that often have iron bars in front for protection and sometimes blinds with slats (Fig. 102). The doors are often beautifully panelled, a few of them even with coloured glass panes as in AC4e and LE4, and if the north facade of the dwelling faced an important street, an impressive panelled entrance door with matching windows were often inserted in the old wall.

The rural neoclassical stone house is a plain edition of the more sophisticated prototypes. The walls are all rubble work, but there are never any stucco reliefs, only sometimes a moulded cornice. The main facade is always symmetrical at the small balcony in the middle, or more rarely all along the facade like on AF6.

One such house is AH2 built by Mastrokostas (Fig. 104). It is a simple and unpretentious house, and one can see how he tried to imitate the prototypes, but lack of training, and no doubt also means on behalf of the client, has resulted in this moving attempt to cope with the new style.

Other dwellings in the rural neoclassical style are the first houses built to the east and west outside the confines of the old village (Fig. 106). They are double houses built to house two brothers. One such house is a house that Mastrokostas built for his two sons, just to the south east of his own house GG7. The west part has never been inhabited and also never rendered, so its construction is still clear (Fig. 105). The house is built according to the traditional *pastas* house, Type 4 (cf. p. 54), but without wooden tie layers, and the facade of the first floor towards the south is walled up with hand-moulded bricks.

The first houses started to appear along the new carriage road before the Second World War. They are rural neoclassical stone houses of the same type as AH2 (Fig.

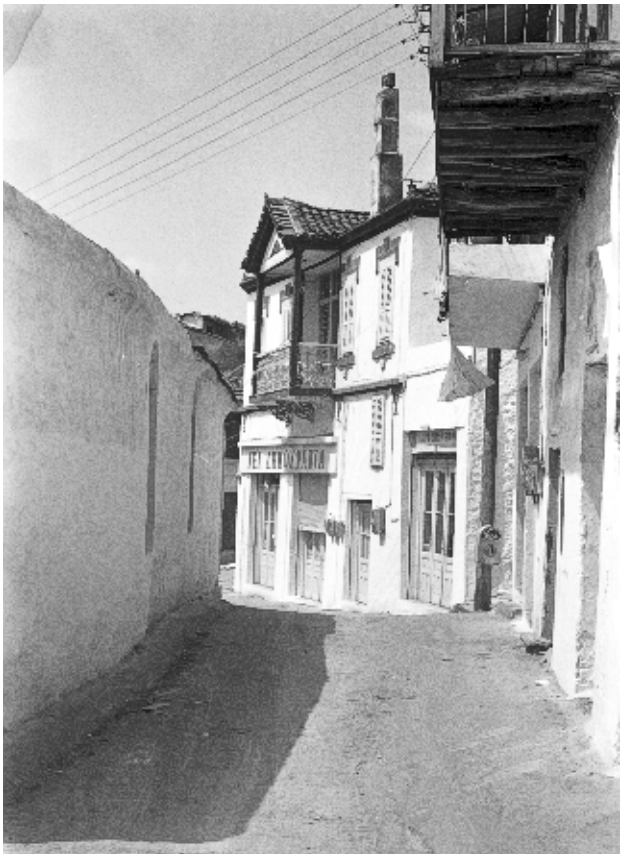


Fig. 100. AE1 seen from the east.

Fig. 101. AK2 seen from the southeast.

Fig. 102. AC4e seen from the south.

Fig. 104. AH2 seen from the southwest.

104), or they of the same type as Mastrokostas son's. Only one large double house, to the south of CD1 and erected in 1936, represents a type with withdrawn verandahs in the main facade. The similarity to a townhouse is enhanced by the quality of the craftsmanship and the shops on the ground floor; the owner had obviously recognised the prospects of a site close to the new main road.

The best rural neoclassical adaptations of the *pastas* house, Type 4, are, as already mentioned, those that had

Fig. 103. EC5e seen from the east.

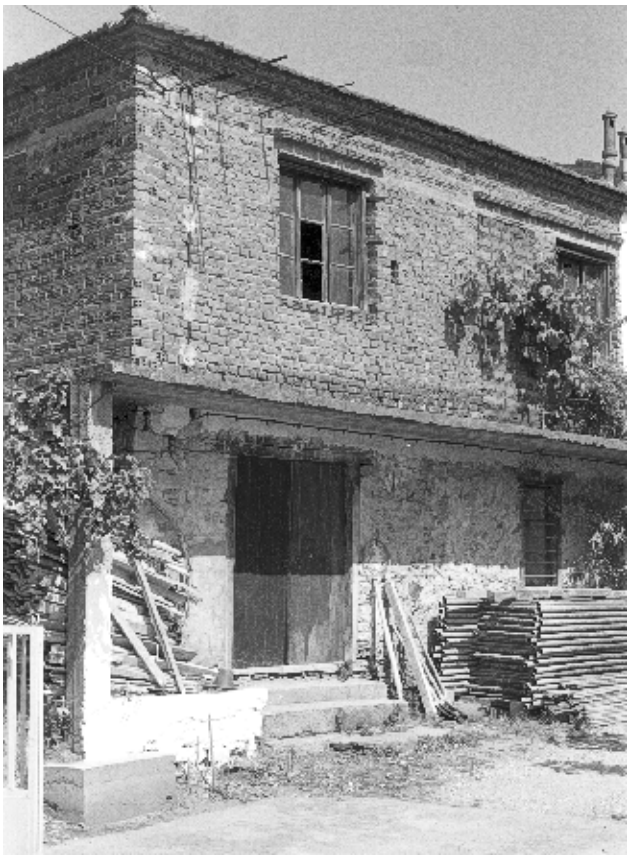


Fig. 105. Mastrokostas's sons's house.

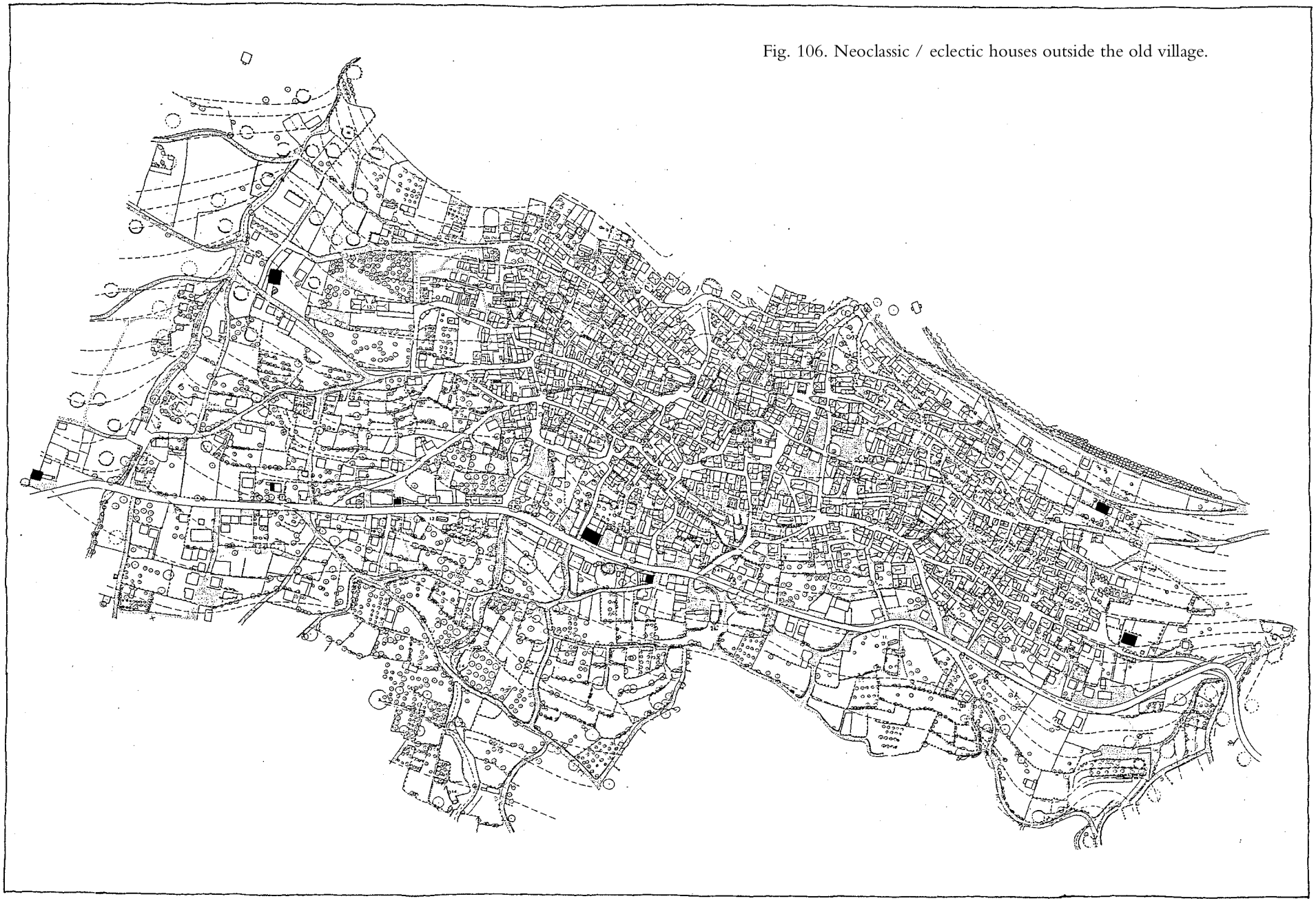


Fig. 106. Neoclassic / eclectic houses outside the old village.

the whole south facade walled up at the same time, which provides a unity which is totally lacking when this procedure has been undertaken in stages. Such houses can be very attractive indeed in their naive simplicity, like AL7, BC5, BM1, HB2, JC5, LA9, MC1 where even the colouring is on the moderate side.

These adaptations have the same features as their refined prototypes, but the difference is again a matter of the quality of building materials and craftsmanship, and especially of joinery. The windows of the walled-up south facade are tall with iron bars in front, but they are never equipped with blinds. The doors often have false panelling consisting of moulded frames nailed to plain board doors on the most representative side. This applies to the C. Goutsaris house, as mentioned already, but also to Mastrokostas's own house, which has been thoroughly surveyed and in many ways reveals how a house of the *pastas* type could also be adapted to the totally new concepts in plan and structure of a rural neoclassical house.

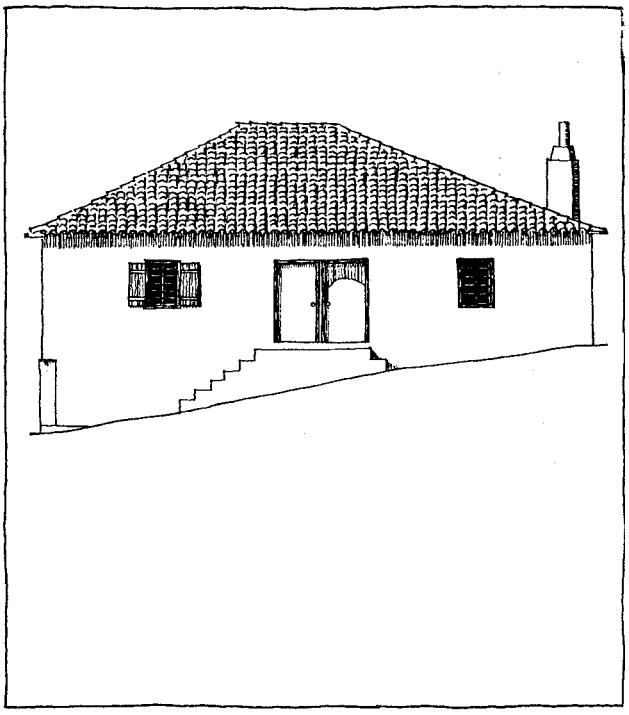


Fig. 108. North facade of GG7 1:150.

T. Mastrokostas house.

The western part of the double house GG7 belonged to the old builder, Tasos Mastrokostas, who died a few years ago, nearly 90 years old. The eastern part still belongs to his brother's widow, Trigona. The house had been bought in 1922 and was rebuilt to house himself and his brother, who was also a builder like their father and grandfather before them. The grandfather had emigrated to Galatista from Prilep, today in South Yugoslavia, and taken up residence at the other end of the village, in CE2. Mastrokostas, who was my invaluable source of information concerning old building techniques, told me that his grandfather was the first to build houses like his own, and that glass windows were already known in his time, i.e. from the last half of the 19th century.

The style of the house is what one may call rural neoclassicism. There is no more a longitudinal half-timber wall going up through the house, supporting the ridge, and when the house was rebuilt the whole south facade of the first floor was walled up symmetrically and had a plan that was correspondingly symmetrical. If there had been no partition wall between the two dwellings, the middle room would have been equivalent to the so-called *sala* of the neoclassical prototype, which was also adapted to rural houses in other parts of Greece (118). The *sala* gives access to all the rooms, and in this it is related to the former *chayati*; considering that the two kitchens originally had no partition towards the *sala* (119), it is as if the *eyvan*, the open recess of the *chayati* in the Anatolian house, had still survived in a new form and with a new function.

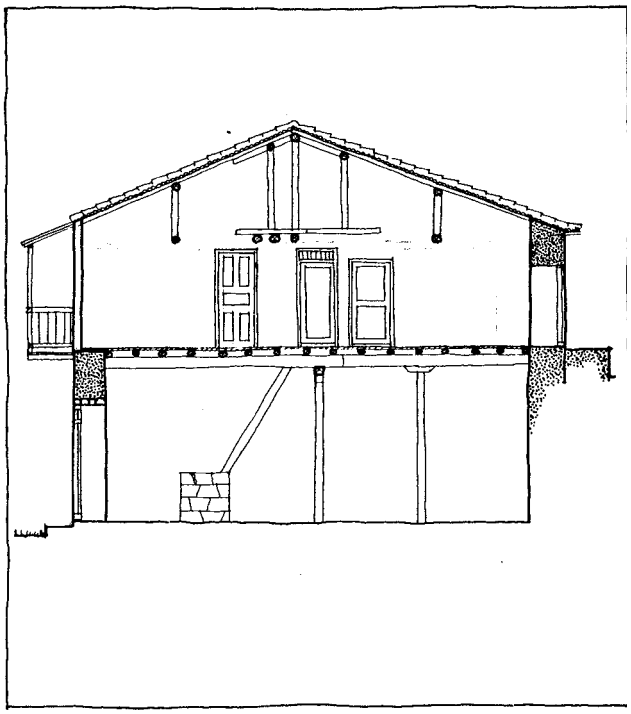


Fig. 109. Section of GG7 1:150.

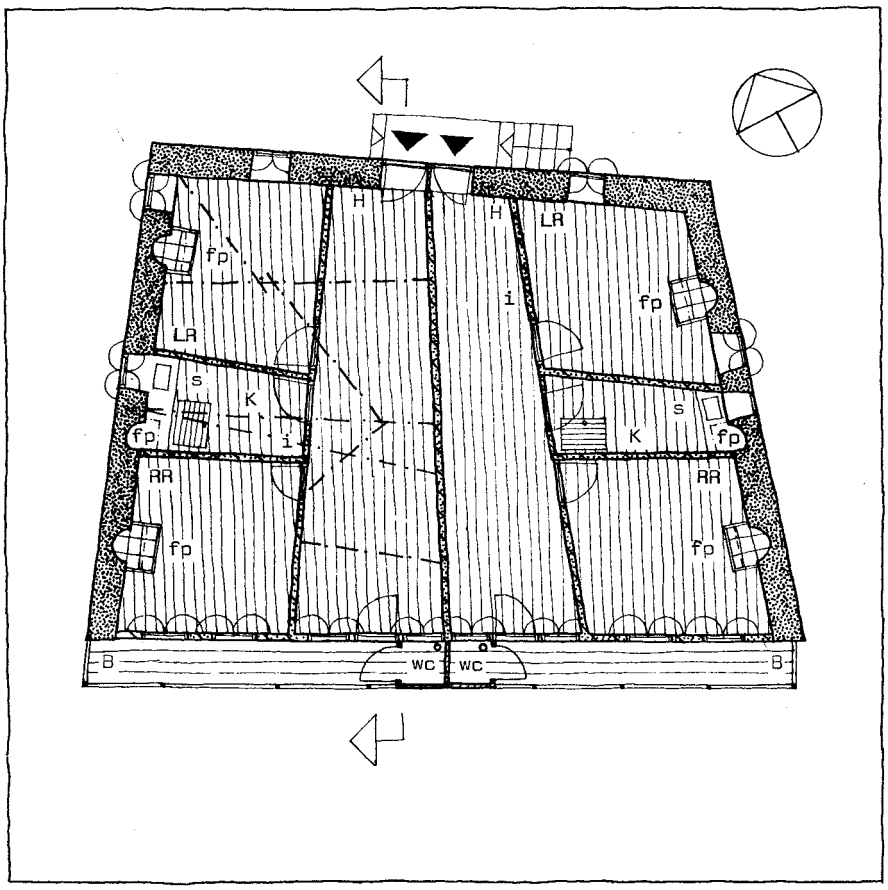


Fig. 110. Plan of the first floor in GG7 1:150.

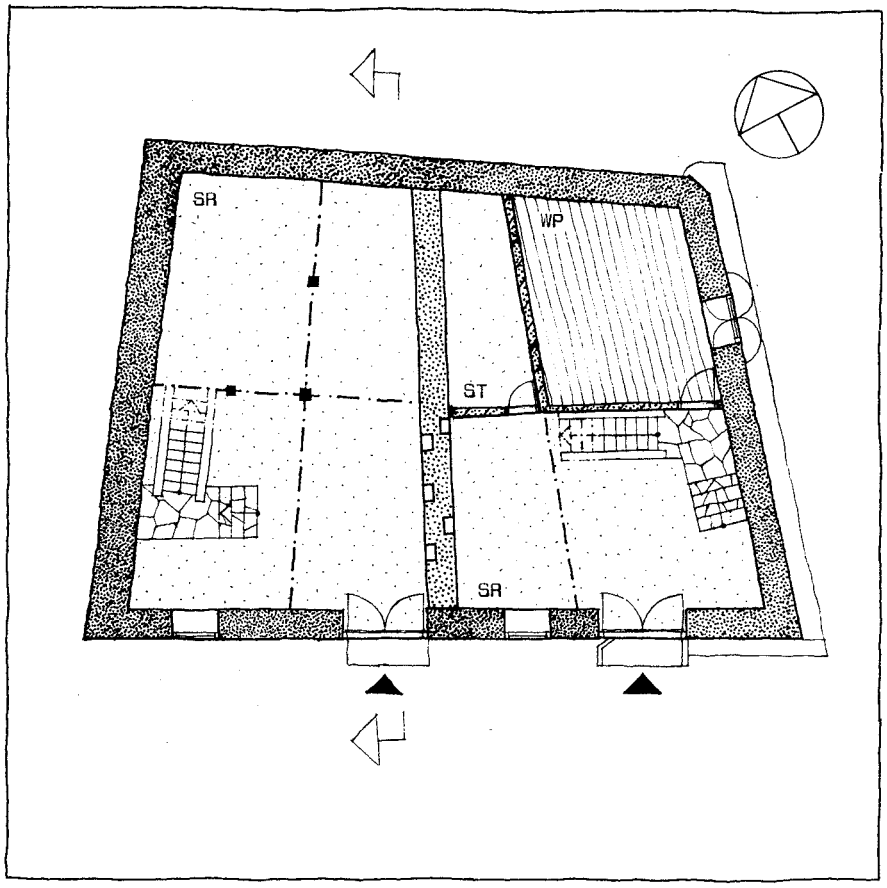


Fig. 111. Plan of the basement in GG7 1:150.

The south facade of the first floor is still half-timbered, but with infill of tufa stones hewn out at the mill ponds below the Byzantine tower (120). The half-timbering has been rendered and the whole house whitewashed, (except the secondary facade to the west and the basement of the Mastrokostas house), in order to make it look like the prototype: the neoclassical town house.

The small balcony of the neoclassical townhouse has here become a long narrow balcony, running all along the south facade. Unlike the *chayati*, the balcony is not used for working in the open, but for drying various crops like onions and garlic, or drying laundry, and sometimes for sitting, leisurely watching people passing by. In the neoclassical rural house, the balcony is usually supported on cantilevers and their ends concealed with boards; one is still intact in the eastern house. The roof of the balcony is a structure that is independent of the main roof, here covered with galvanized, corrugated iron sheets. The railing is also characteristic: a top and bottom rail mortised into slender pillars that support the roof of the balcony, and with simple balusters of round iron bars (121).

The quality of the joinery is dependent on its representative function. Doors and windows towards the balcony are of untreated chestnut the windows are also bigger here, than in the rest of the house, and the board door has a thin frame with panel moulds nailed to it to look like a genuine panel door. It is striking that the south facade is obviously still the main facade, following the long tradition of the *pastas* house, while the facades to the street have no representative elements at all, the entrance doors being plain board doors of varnished pinewood, here even covered with galvanized iron sheets. The windows are small with board shutters of pinewood. In this respect the Mastrokostas house is like many other old houses in Galatista.

When considering the plan, one would expect it to utilize supporting cross walls, but this is not the case. In the basement we still have a longitudinal wall of half-timbering in the east house, but in the west part it has been replaced by a main girder running in the longitudinal direction, supported by a stud. On the first floor things have changed radically. The three cross walls of half-timbering are supported by the rubble wall and the two beams, A and B, in the basement.

The roof is a complicated affair (122). The trusses are now incorporated in the cross walls, that are connected with four tie beams on which corresponding purlins rest on posts (cf. Fig. 109 & 110). The rest of the construction follows tradition as described above. All in all this roof structure seems much lighter than that of older houses, and may be due to the fact that by this time it had been understood, that a tiled roof does not required the heavy timber structures of traditional old houses, which had probably been designed for slate roofing (cf. p. 56).

The basement in the western house served as a store for timber, for which reason there are no glass panes either in the window or in the transom light of the gate, but only iron bars as in front of all other windows of the house. The basement in the eastern house had a small stable and a room for a loom on a raised floor, flush with the landing of the ladder to the first floor.

The *sala* on the first floor served mainly as an entrance hall and as reception room for an occasional visitor. Before the w.c. shed was constructed on the balcony, the *sala* had the typical motif of many other adaptations of the *pastas* house: a door, usually panelled, with two tall windows symmetrically on each side.

The guest rooms, facing towards the south and the best view, were the rooms originally used for festive occasions. There are still two beds symmetrically on both sides of the fireplace, and the best homemade textiles are spread on the beds. The windows have curtains, and there is a large old photograph of the owner and his wife as a young couple, hanging on the wall. The fireplace has the specific square two-storey mantle of later times (123), and the mantlepiece is decorated with various bric-a-brac. In the western house there is only a ceiling in the guest room, and the doors to the guest rooms are the only doors with genuine panels in the house. The daily function of the guest rooms was as a store room for textiles and textile implements. In Trigona Mastrokosta's house one can still see the typical heap of home-woven blankets and carpets, covered with a fine white embroidered sheet.

The rooms facing the street to the north are the living-rooms of the families. They also have two beds symmetrically on each side of the fireplace, but the decoration is more unpretentious. Kitchen ranges had been set up later and cooking was done here in winter, at the same time as the room was heated more effectively than with the open fireplace only. It is solely friends and relatives that are asked into these rooms, when visiting the owners.

The small kitchens were accommodated from the very beginning. Open fireplaces with severed mantles, due to lack of space, have usefully been built in level with the kitchen table that has a small built-in sink with a tap in front of the window. Today cooking is done on gas cookers in the fireplace during summer, and the meals are also taken here.

If the function of Tasos Mastrokostas's house was very much the same as it had always been, things are more

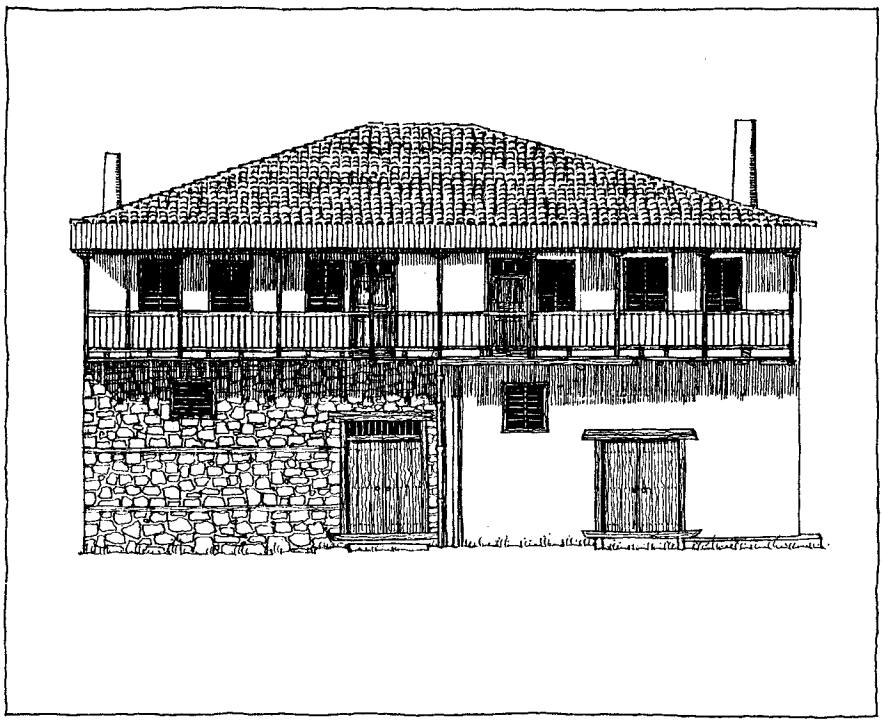


Fig. 107. South facade of GG7 1:150.

up-to-date in Trigona Mastrokosta's house, perhaps because she has spent most of the winters for many years with her married daughters in Salonica. The *sala* is now called *kathistiko* (sitting room) and is equipped with a veneered dining table and upholstered chairs to go with it, and it is now this room that is used for festive occasions and as a reception room for an occasional visitor. The guest room is now called *krevatokamera* (bedroom) and is used for putting up relatives visiting Galatista. The living-room is called *kathimerino*, and is used as before for daily living all the year. This division of functions is similar to many flats and houses in Salonica, only there one rarely finds a bedroom especially for guests due to lack of space.

E. Angelakis house.

This house BG2e is interesting, because I believe that it is an example of how the very deep and narrow row house type emerged. Such houses are usually situated at very desirable sites: along main roads and close to fountains. The neighbouring house to the west belonged until recently to a brother, D. Angelakis, and according to his wife the two dwellings were adapted from an older house sometime between the two World Wars. Both houses are uninhabited at the moment, since shepherding, which was the ancestral occupation, is no longer lucrative on a small scale. So one brother opened a bakery in a new house on the main road, and the other found work at a small factory outside Galatista, but unfortunately, the new occupations lasted only for a short time.

It is in the basement that one has to look for remains of older houses, as it is more difficult to find traces in the dwelling, since they have been hidden under a thick layer of plaster and whitewash. Here in the Angelakis basements there are still remains of two old walls with tie layers and running parallel to the back wall, namely those that have been marked 1 and 2. It is clearly seen that they are parts of walls that have been truncated, especially 2 which once continued east. This is an indication that the house may originally have been the same house type as that belonging to C. Goutsaris (pp. 61-63): a two-storeyed stone house with an open gallery in front. The necessity of expanding the house, not only to obtain a bigger stable in one single room, but also a bigger dwelling on the first floor, had made the original rubble wall an impediment to further expansion, and so it was demolished and replaced with a light construction, consisting of a pillar with a girder supporting the two floor beams, while that which was left of the original wall, became part of a new partition wall in the other basement.

The retaining wall at the back of the basement is continuous and not built together with any of the walls adjoining it (124), while the south wall has tie layers corresponding with those of the entire east wall, but there is still a breach between the two, indicating that they were not built at the same time.

In D. Angelakis's basement the two cross walls are made of quarry stones without tie layers and the same applies to the rubble wall that parts the two basements, which shows that they are not very old and probably date

97

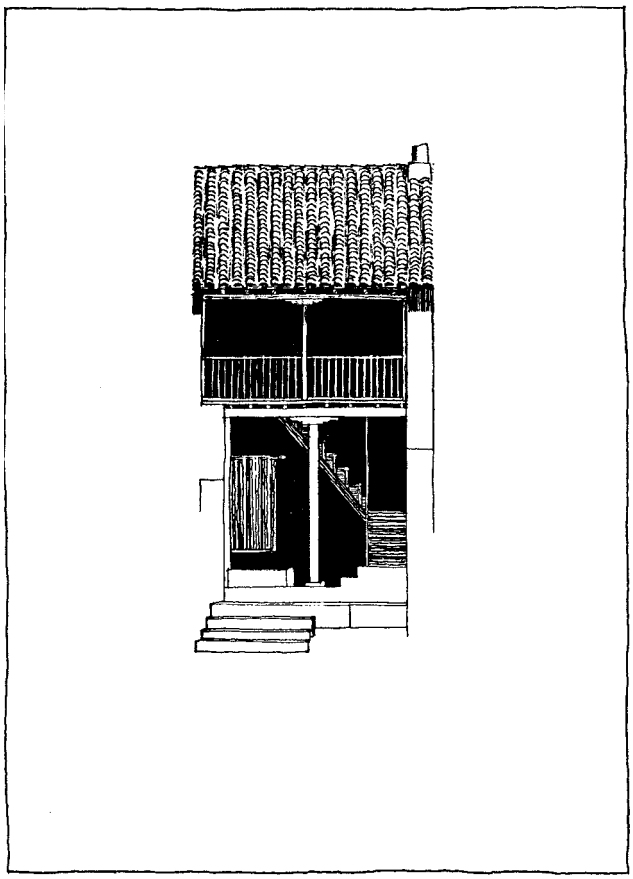


Fig. 112. South facade of BG2e 1:150.

back to the time when the houses were adapted to house the two brothers. There is a stable in front and a store room at the back, which is parted from the other brother's stable only by a thin partition wall, consisting of reeds nailed to a row of uprights, a solution that would be unthinkable if between non-related neighbours.

The development of the E. Angelakis house seems to have been from Type 2 to Type 4, (p. 54) with the new wall to the south in the basement, before it acquired its present form where the *chayati* is no more than a narrow corridor, and a new open gallery has been built in front of the whole house to make up for its loss.

The plan of the first floor is an example of one of several ways in which a deep narrow house in a row could be adapted into a dwelling. Common to them all is the narrow corridor going from the open gallery, or balcony to the back of the house, where there may be an entrance from the street, like for instance in BC7. All rooms have admittance from the corridor, but the E. Angelakis house is peculiar in so far as the back room has never been walled up; it may have served as a protected outdoor room for the preparation of wool from the herd, and would also have been a suitable place to set up looms. One window has a sink built into the sill, a common solution in Galatista.

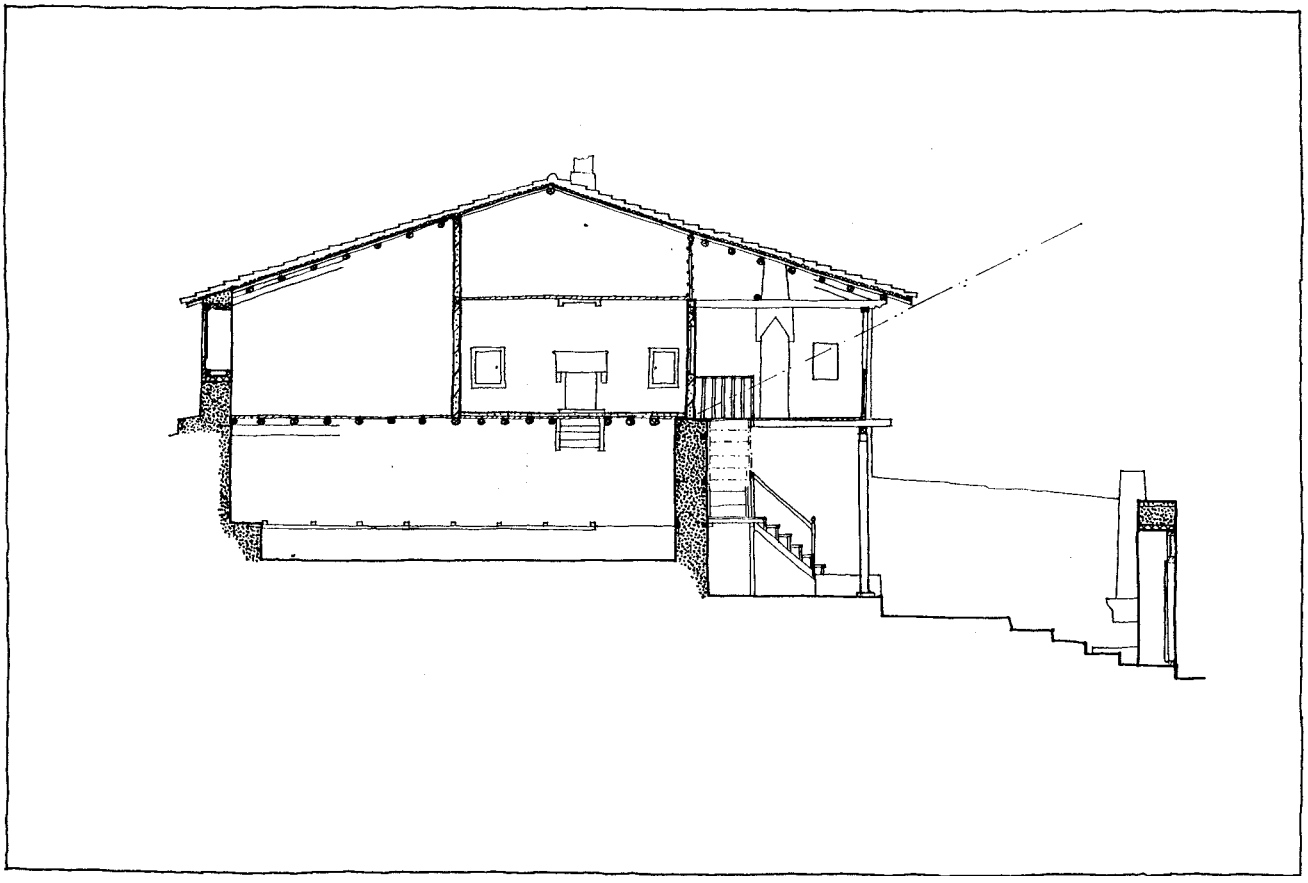


Fig. 113. Secton of BG2e 1:150.

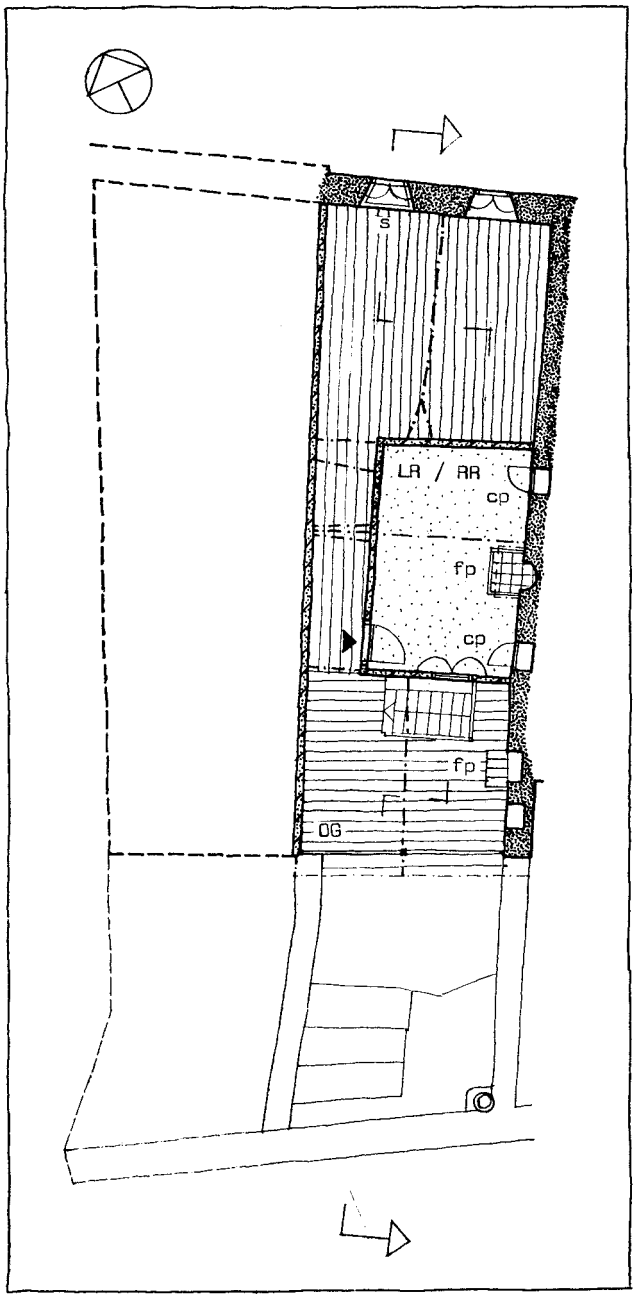


Fig. 114. Plan of the first floor in BG2e 1:150.

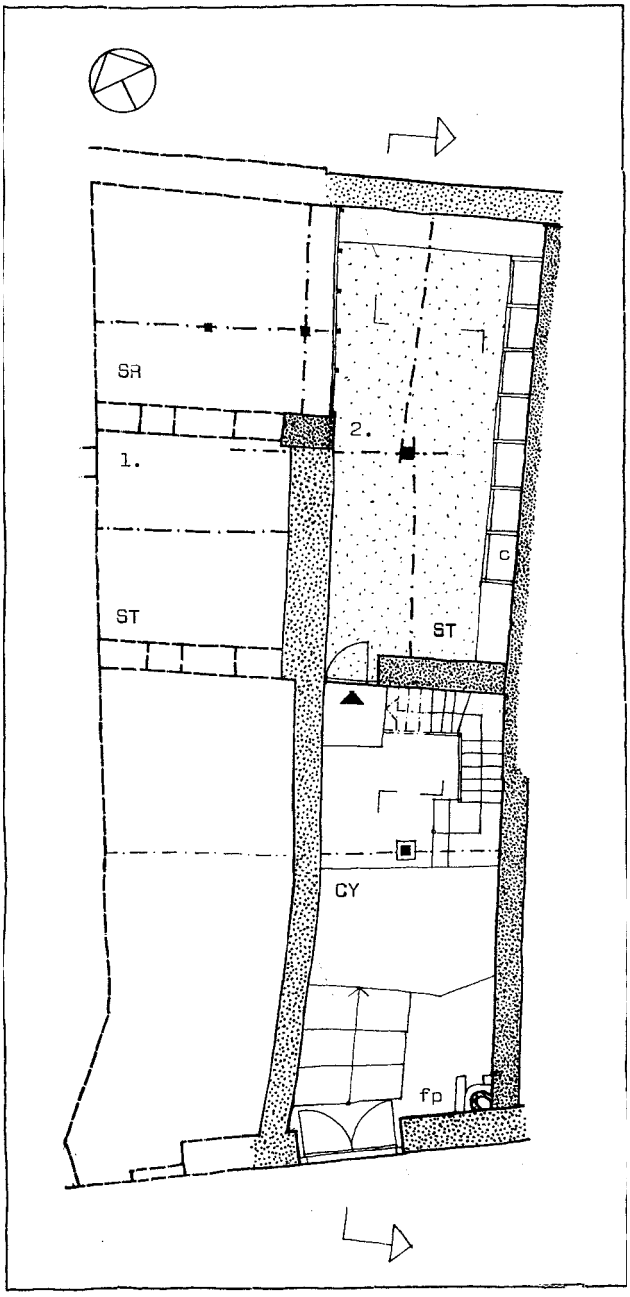


Fig. 115. Plan of basement in BG2e 1:150.

The room with the fireplace must have been the winter living-room, but serving at the same time as a reception room. The fine ceiling is the same as described in other houses, but the floor has rammed clay, which has been plastered for refinement.

The open gallery has an open fireplace at the east wall, where cooking was done, while the fireplace in the yard was a place to put large cauldrons on a fire, to heat water, to make *trachanas*, which is still seen in Galatista today. The L-shaped staircase resulted in the addition of extra depth to the gallery, and so the lighting of the living-room has become very faint, even at winter solstice the sun does not shine into it (see section Fig. 113).

The joinery shows that the house must have been rebuilt in the interwar period. There is the characteristic rural neoclassical window, tall and with iron bars in front, a pseudo-panelled door to the reception room / living-room, a staircase with turned balusters and newels and the typical neoclassical railing with iron bars stuck into moulded wooden top and bottom rails. The ends of the rafters and the capitals have been moulded too, and nearly over-elaborately so, considering the coarseness of the rest of the structure; nonetheless it shows that the local builder had by now obtained the means to gain upon his fellow craftsmen of the *isnafia*, whether due to better tools, or because readymade joinery could be

imported cheaply from Salonica after the new carriage road had been made.

D. Angelakis's house is basically symmetrical to his brother´s house, but since it was inhabited until quite recently, efforts had been made to modernize it. The open gallery had been turned into a kitchen / living-room, leaving the original staircase in the open, but the room behind received hardly any light.

Such a plan as this is not unusual in other similar narrow dwellings in row houses, when the *chayati* in front has been walled up to make a sunny room in front, but the rooms in the middle receive little or no light at all, and are used either as bedrooms or store rooms. In houses like BC9w and GB2, that I have seen personally, there is such plan, showing that the division of the patriarchal home had reached its utmost limit.

Hypothesis concerning the evolution of the *pastas* house in Galatista.

Theories of G. Megas. When comparing the seven houses that have been surveyed, to the four types (cf. p. 54) which have been used as a starting point for the classification of houses in Galatista, there is some immediate affinity, but it cannot be established with certainty, since none of G. Megas's examples have been thoroughly surveyed so as to give an account of their inner structure, a shortcoming that for that matter has been criticized recently (125).

Concerning Megas's typological diagrams, they are interesting because they show, in plan only, the many variations of the plan that the Greek longhouse with hipped roof displays. However, there is no distinction between the one-storeyed house of the lowlands and the two- (or three-) storeyed *pastas* house of the mountains, although different constructions, due to availability of different local building materials, and even the site itself, would lead to a different evolution, determined by the possibilities inherent in these diverging factors.

It is the way the builders in Galatista optimized site, microclimate and local building materials in order to adapt the *pastas* house to social, functional and cultural demands, that the following attempt to classify its evolution has been made.

Size and dimensions. Common to most locally built preindustrial houses in Galatista are certain constructive principles and dimensions. As already mentioned, the height of the basement was decided by the gradient of the slope in order to keep the dwelling on the first floor free of the ground. If there was only a small gradient, or none at all, the basement could be anything between 2 m and 3 m high, depending, I suppose, on the height of man and animals, agricultural equipment like the wine press, that can be as much as 2 m high, and of course the economic situation of the owner. The living quarters rarely have more than 2 m free height under the beams, but originally there was no suspended ceiling, except in the reception room, until this became a social necessity.

Dimensions in plan seem to be dependent, as already mentioned, on the size of the Kermes oak in the maquis near Galatista (cf. p. 57). The biggest trees were used for trusses, girders and floor beams, and their height determined the depth of the house, about 4.5 m on average (excluding the rubble wall), while the smaller trees from the shrubs were used as joists and purlins, which in their turn determined the distance between beams and trusses, and also the depth of the open gallery in its original form, all about 2.5 m in average. In other words: the length of the house was determined by how many bays, i.e. how many spans of joists the house was going to have, and in Galatista the three-bay house, corresponding to a length of about 9 m (including rubble walls), is apparently the most common (cf. D. Panelas house, p. 65). Some of the bigger houses can have up to six bays like the Matsoukis house, including the neighbouring house (cf. p. 82).

In a way one could say that a kind of primitive modular system had been established, but without any rigidity; all dimensions were adjustable in order to fit the house to the site and to make the most of available timber.

The best houses are apparently also built of timber from the maquis, maybe timber from the older building, since new timber had to be stored for at least one year, before it could be used (126), but was it the case, that the *isnafia* brought their own timber (chestnut) with them in order to cover the crude local timber up and give it a more elegant appearance?

The diagrams (Figs. 117 & 118) show the structural principles of three different basic types of the two-storeyed *pastas* house. The difference vertically is in basic construction, the difference horizontally denotes expansion of the basement under the same roof structure until just before the vertical dividing line, at which point a form had been developed that allowed a much freer plan disposition of the first floor.

To the right of the dividing line the most characteristic expansions on the first floor have been shown, which were mostly influenced by social, economic and cultural factors. Socially it may be a way to keep the patriarchal

family together under the same roof by giving the married son a room of his own, economically it was cheaper to make an extra room than to build or buy a new house, and culturally, most of these rooms, adapted on the open gallery, also served as reception rooms which was a way of conforming to new middle-class patterns of life, that were slowly gaining a footing in the village as mentioned above. Architecturally the new way of life was expressed in entirely new elements like *sachnissi*, sofas, *sala*, neoclassical balconies etc.

In the diagrams there is no consideration of the setting off of joists and beams, nor of the three-storeyed houses, as their first floor is structurally a mere repetition of the basement, while the second floor follows the evolution of the first floor of the two-storeyed house.

Since the most pronounced evolution took place when the open gallery was walled up in stages, no account has been made of all the variations that the back of the house has possibly been subject to at the same time, which would hardly show anything not already shown on Megas's diagrams. The diagrams here mainly describe the structural principles that were used to obtain the desired form and size of the house.

The basic house type is the smallest and most common in Galatista: the three-bay house with two rooms at the back, a common house type in Chalkidiki (127) and other parts of Greece (128). Larger houses are fundamentally the same with one or several repetitions of the middle element, with or without side wings.

After the dividing line houses are not normally symmetrical, because the gallery has been walled up in stages at different times, each time conforming to the style that was "in". That is why, as already mentioned, it is possible to notice up to three or four different style elements in the same facade. Finally the given examples may just as well have been shown reflected, depending on the orientation of the house and the whims of the owner.

The houses under "a" have been shown without side wings, and those under "b" with side wings, here shown as additions, but they might have existed from the beginning, maybe as a wall towards the neighbour's yard.

Type I. This house type, as deduced from Megas (129) had a two-storeyed main body of rubble work, and it has a strong affinity to the oldest part of the C. Goutsaris house (cf. pp. 61-63) as to construction and dimensions. In front of the house in Megas's example runs a two-storeyed narrow gallery. It is impossible to judge with accuracy how it was constructed, since it does not appear clearly either from the drawing or the photo, but there is every reason to believe that it was made in the same way as other similar galleries (130), i.e. of one layer of joists resting on the wall and the tie girder in front, supported by a row of pillars. Most notable is the structure of the roof which has been accomplished with a simple extension of the roof, a structure that would later be some hindrance for further expansion of the dwelling on the gallery, since the ceiling would be low as pointed out by Megas (131). The gallery would also have to be either narrow or the roof very low-pitched, or there would not be much light. The drawbacks of this house type have surely contributed to its absence from a village such as Galatista, that has seen some very dynamic evolution of its houses, but it has been included in the diagram as a possible archaic predecessor of Type 2 (cf. p.54).

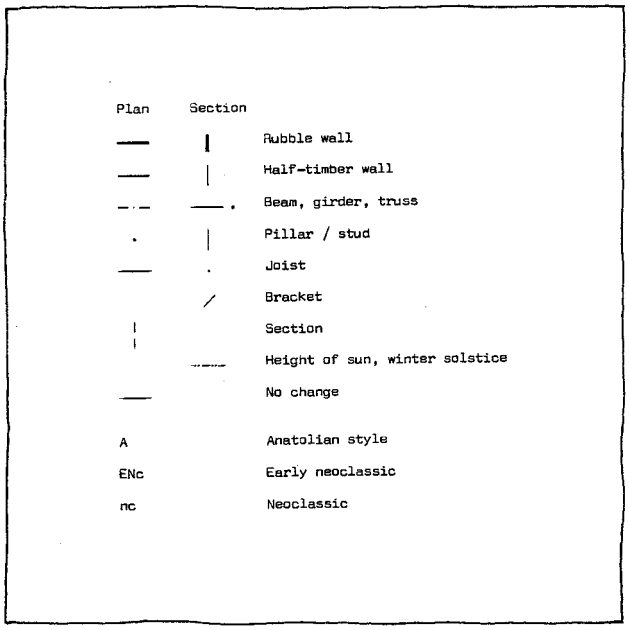


Fig. 116. Signatures for the diagrams fig. 117 & 118.

Type II A. The trusses of the roof are now supported by the pillars at the front, which gives the gallery free height similar to that inside the house. Would it not be reasonable to presume, that the original solution was to let the king post rest on the rubble wall, since this was the least complicated solution? It would then be a simple procedure to wall up between them with half-timbering, similar to that on the C. Goutsaris house (Fig. 54). The only drawback was purely aesthetic: the roof would not be symmetrical.

The house beside D. Panelas's KB4e (Fig. 119) (132) and II Ad on the diagram, is a house with such a roof construction, but the rubble wall has here been replaced by a half-timber wall, representing a later step of the evolution, which has been accounted for in type II B.

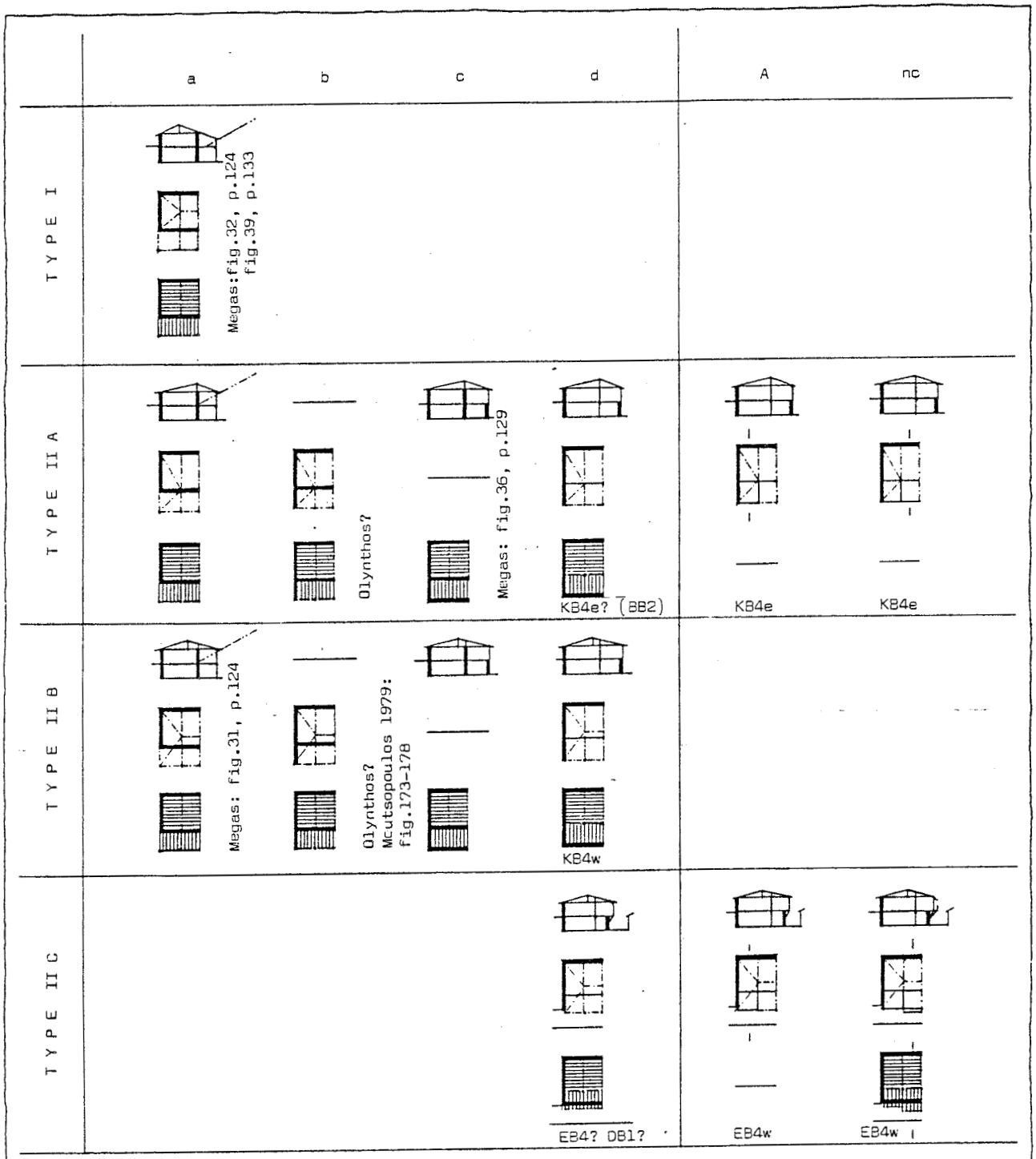


Fig. 117. Evolution of the *pastas* houses Type I and Type II.

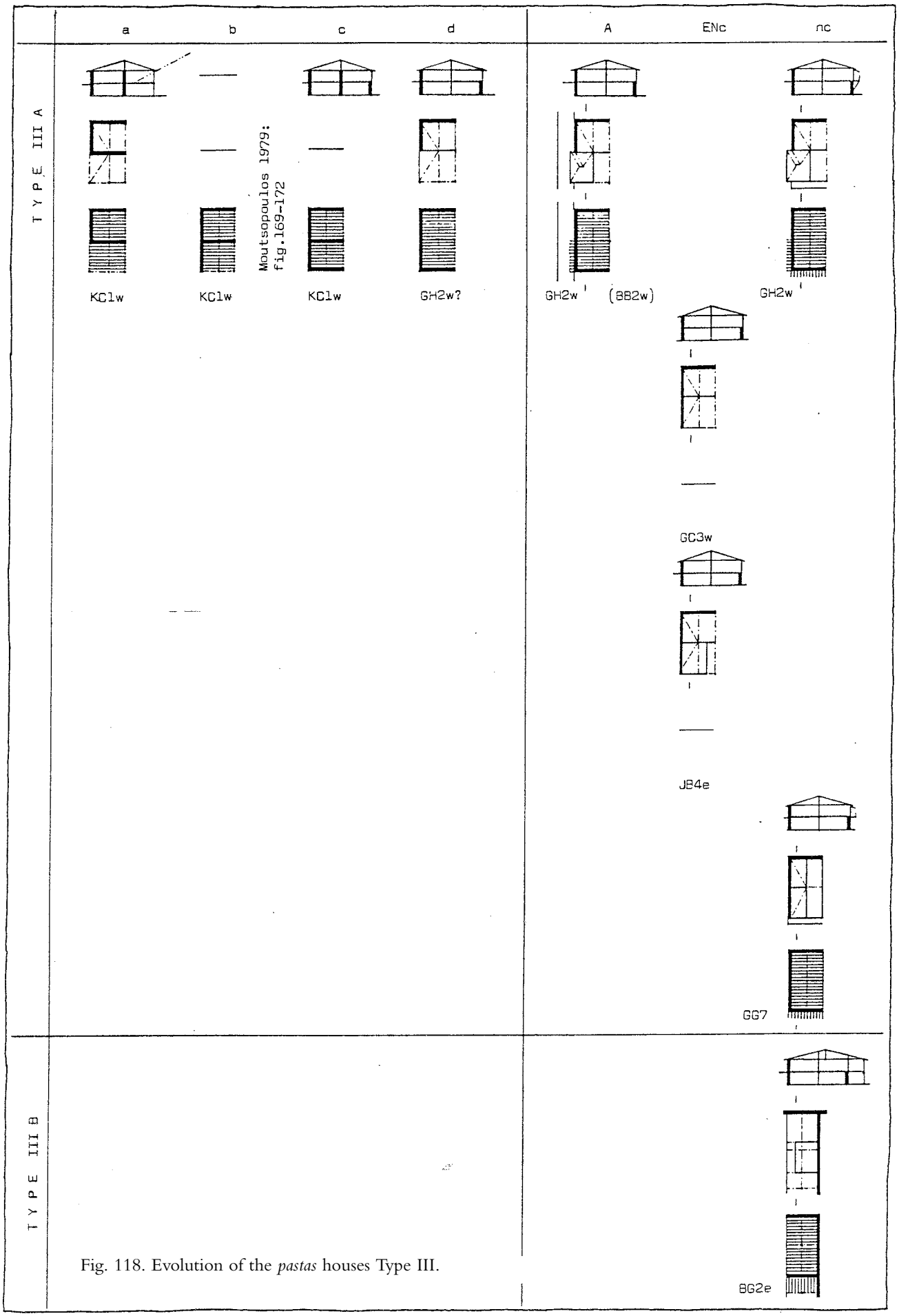


Fig. 118. Evolution of the *pastas* houses Type III.

Nothing would have prevented the same evolution taking place for II A, but I have not found any of the intermediate stages in Galatista. Nonetheless, it has been observed in other parts of Greece (133).

Type II B. The next step may have been to make the roof symmetrical for purely aesthetic reasons, perhaps copying the roof of prototypes. In any case, the roof of the D. Panelas house (Fig. 56 & 57) testifies how much difficulty it had caused to make the structure stable (cf. p. 64).

The type, represented by this house, may be seen as a very important step in the evolution that had taken place to expand the basement. What would really have prevented some similar development as in the basement of the C. Goutsaris house (Fig. 51)? In other words first adding the side wings, if there were none, and then walling up the front part, leaving the pillars as they were, and as one can still see them on some houses (134) (cf. Fig. 45). Yet the solution of II Bc would soon have proved inconvenient, if the new anteroom was too narrow for its function, and then the next step would have been taken to free the basement of the longitudinal rubble wall and replace it by a pillar structure, with the basement surrounded only by a rubble wall from the very beginning. This pioneering step forward may very well first have been taken by master builders, because not only the basement, but also the first floor could now have free disposition in plan, conforming only to supporting elements, and the partition walls on the first floor could of course be of light half-timber work.

Type II C. Houses without a yard sometimes had an open gallery projecting over the street along the full length of the facade, apparently to make up for lack of a working area in the open. EB4 is such a house (Fig. 60). It has the same basic construction as II Bd, but since the plot was not deep enough, the first floor had to be projected in order to create an open gallery of sufficient size. When this in turn had been walled up, we get what very much resembles a *sachnissi* in embryonic stage. If the builder now had to extend some part of the open gallery (and the roof) in order to obtain a room of some size in Type II A or B, he would have to let that part project, creating something that looked very much like a *sachnissi*. Could it be the predecessor of the fully developed *sachnissi* of the Anatolian house? Beginning as a simple way of extending the family dwelling in densely built areas like towns?

In another house DBI, the projecting part of the open gallery has been left as a neoclassical balcony (Fig. 120).

Fig. 119. KB4e seen from the east.

Fig. 120. DB1 seen from the southeast.

Further development of Type II. To the right of the dividing line are shown examples of change that took place on the first floor in some of the few houses belonging to Type II, that are still found in Galatista. No account has been made of possible variations in the basement, which in terms of construction is the same as II d, and because it is first of all on the first floor that cultural influences, expressed in different styles and plans, are evident.

KB4e belongs as already mentioned to Type II A, but since there is a neighbouring house very close to the south (135), it was not possible to give the *chayati* a projection in this direction, but only towards the east and the street. Consequently, the reception room, adapted in the western part of the open gallery, is very small indeed, but when the *chayati* was also walled up later, leaving the projection over the street as a balcony, it became a spacious room to receive guests. However, if the projecting part of the *chayati* had also been walled up, a *sachnissi* would have been created in the most simple way (Fig. 119).

EB4w first had a room created on the open gallery towards the west with a fireplace in Anatolian style, and in order to create a bigger room, it was extended further into the back part of the house in the most unusual way. The *chayati* was then in its turn walled up and called a *sala* in the neoclassical period, and a small balcony on brackets was adapted in the middle. The only entrance to the house remained to the south, and there was no corridor was ever made on the first floor giving admittance to the other street too, as was common in many other houses, including the neighbouring house, which is constructively the same as EB4w, but has a different plan (Fig. 60).

Today only a few houses are left in Galatista belonging to Type II A or B, because houses with a yard in front, and they are the majority, had the capacity to develop in a different way absorbing part of the yard, or all of it, thus creating a bigger house than it was possible for Type II C with no prospects at all of increasing the basement any further. This leads to Type III.

Type III A. This type (Fig. 118) differs from Type II in being symmetrical in section. The front part has now been constructed in the same way as the back part with joists on beams that adds to the depth, and makes it possible to create more spacious rooms at the front. Whether this development actually came about, beginning the same way as shown for Type II, or in the C. Goutsaris house, or whether it is an imitation of new constructive principles in the Kanavas house (Fig. 71), or just some logical extension of Type IId is hard to tell, but I am inclined to believe that all have played a part. On the diagram is shown the development which took place at the C. Goutsaris house (Figs. 50-54), but that did not conform to prototypes set by a house like Kanavas's among others?

Constructing a very deep gallery, ca. 5 m, meant that hardly any sun would reach the south facade of the dwelling, and if there was no other possibility of getting light from windows in the rubble walls, it would have been a very questionable solution, which is why I believe that this constructive solution had come about first of all to create rooms, and a *chayati* of ample size, on the open gallery, and not only in order to make a deep open gallery.

Like in Type IId, the introduction of a supporting pillar construction instead of the rubble wall in the middle of the house, made it possible to increase the house homogeneously on the first floor by setting up light half-timber walls, conforming only to supporting structures, the style in fashion and the wishes of the owner. Type IIId is the same as Type 4 (p. 54), but cannot be considered an independent type, when its presuppositions have been understood.

Further development of Type III. On the other side of the dividing line, there has been some similar development as for Type II, but due to different construction methods of the front part, there are also other possibilities.

It had now become a simple procedure to create a *sachnissi* towards the by-street simply by projecting joists. Later the *chayati* might also be walled up and replaced by a narrow balcony running all along the facade, and with an independent roof structure as on GH2w (Fig. 82).

The E. Panelas house GC3w (Fig. 92-96) (136) represents, as already mentioned, a step towards neoclassicism, but due to the unusual height of the first floor, the open gallery still has plenty of light in spite of the depth. At JB4e (Fig. 91) the open outdoor room of the E. Panelas house has here been walled up completely, and the *chayati* itself serves more as a large entrance hall. In this house the *chayati* ceiling is normal height, but the rooms at the back of the house all receive light through windows in the rubble walls.

The final link in the evolution is the rural neoclassical house, like the Mastrokostas house (Figs. 107-111), where the longitudinal wall has been abolished and replaced by transversal walls, but retaining the same supporting pillar construction as its predecessors. A narrow balcony on cantilevers has been built all along the south

facade, again with an independent roof structure. In this house type it is normal to have a room serving as a passage, when there was an entrance also from the back street. This room could either be a wide *sala* as in the Mastrokostas house or a narrow corridor, depending on how many bays of the house had been shared.

Type III is by far the most common house type in Galatista, its advantage being obvious in comparison to Type II. Still there are many examples, especially among row houses, where this house type could not meet the requirement of more space; these are the houses that had become so narrow, that further expansion could only be further into the yard, resulting in the emergence of a new type, namely Type III B.

Type III B. This house type is in reality a further development of Type IIId with the addition of a variation of the open gallery of Type IIb. In the E. Angelakis house (Figs. 112-115) we have seen how this house very likely developed from the nucleus two-storeyed stone house, but the south rubble wall had been pulled down in order to make room for expansion in the basement, also on the first floor. In effect this house is related to the plan of the Mastrokostas house (Fig. 110), but here the narrow balcony has been replaced by a two-storeyed open gallery, which also gives admittance to the house, and there is no longer any entrance from the back street. It was when this house type had the open gallery walled up too, as in the D. Angelakis house BG2w, that it started to become uninhabitable, since the room in the middle received hardly any light at all.

Synopsis: The original house type in Galatista seems to have been Type II, which is apparently also a very common house type in Chalkidiki today. When demand for a bigger house arose as a means of housing the sons and their families in the old patriarchal home, it seems that the original two-storeyed stone house with its narrow open gallery had become an impediment to further expansion. It was not only in Galatista, but also in other parts of Greece that such expansion had started to take place in times not so long ago (137), and I believe that it may have something to do with the Greek population explosion after 1861 (cf. p. 23).

In such cases where the gallery projected over a public area, the new room on the open gallery would look like a *sachnissi* at an early stage, but if there was a yard in front, which was usually the case, another house type, Type III, was utilized as it increased the free area of the basement at the same time as the first floor could have a much freer plan disposition. It is possible that a house like Kanavas's played a pioneering role here, if it was the first to be built like Type IIId, but it is also possible that capable, local builders had taken the step from Type II Ad or II Bd to Type IIId. Anyway this new house type opened the way for a whole range of possible expansions, always conforming humbly to architectural currents reaching Galatista as modifications of the prototypes. For old ways of life still lingered on, which had as yet very little to do with the life-style of the town houses that they tried to imitate. It was not until after the Second World War, when mechanisation had freed the peasant from hard toil, that life began to be alike in villages and towns, with hardly any difference in the standard and style of the houses either.

The astonishing versatility of the *pastas* house, with its large scope of variations, had made it an eternal form, adaptable to all kinds of needs and yet taking full heed to site, climate, and economy of building materials. What could prevent such a house from surviving more or less the same through millennia (138)?

When looking at the plan from Olynthos (Fig. 38) is its relatedness to Type IIb not striking? A house type that was common until recently in Chalkidiki (139).

The study of the evolution of the *pastas* house in Galatista has shown in what admirable way the builders of the past knew to make the most of potentials inherent in the site, in order to create a framework for that which they thought the best life possible.

"They knew to work right up to the technological ceiling of their culture yet well below the aesthetic ceiling demonstrated in the prototypes" (140). But maybe even more important was the balance in relation to the environment: "These houses tended towards a balance with nature, rather than dominating it, which further reinforces its superiority over modern grand design tradition as a topic for study for the relation of the built environment to man and nature" (141).

Chapter II

The village today

Impact of modern technology

The 18th century. Change had begun long time before post-war times, when modern technology was making its entry for good. Indeed I do believe that the first germs had already taken root two hundred years ago, when, as we have seen, a kind of middle-class had started to emerge, because some inhabitants had begun to make a living not only from farming for self-sufficiency, but from business as well (cf. pp. 22 & 68). We have seen that in the Kanavas and Matsoukis houses there was once some small-scale silk industry, and in the large *archontiko* EA2 extended silk industry. Cash had enabled some inhabitants to build larger houses and of better quality as an external image of social progress in a strongly competitive society.

The liberation in 1914. In the beginning of this century two events took place, which had the greatest influence on the further development of the village. First of all the liberation from Turkish occupation in 1914, which gave even more impetus to the opening that had already begun in the 19th century: a shift of cultural orientation from east to west.

The carriage road. The second important event, which was a result of the first, was the new carriage road begun during Venizelos's government in 1917 and finished in 1922, when the last stretch through the garden area was made (l) (Fig. 121). Its importance can hardly be exaggerated: everything had to be transported on mule back before 1917; now quantities could be transported on carriage to the market in Salonica, and vice versa. It furthered the building activity, as mentioned above (p. 86f), by making certain building materials more easily available, and it gave impetus to extended business and the erection of new shops, but so far they were mainly situated at the *agora* or along the caravan route.

In the beginning there were no houses along the new carriage road, but some bright villagers had seen its future possibilities, so a few houses had already been built there before the Second World War. These houses are all rural late neoclassical (Fig. 106).

New commercial centre at the carriage road. Introduction of the automobile has furthered the emergence of a new commercial centre down on the main road, for transport by heavy lorries is pretty near impossible through the narrow lanes of the old village, apart from which the small old houses could not have provided enough space for modern enterprises like the corn mill, bakeries exporting bread to Salonica, machine driven carpentries and joineries, service and filling-stations, all of which were established some time after the Second World War. Several cafes, a play room and even a discotheque have been established lately, and serve mainly a public of young people of both sexes. Finally the state has also provided for a whole range of public service down here too.

Common to most modern two-storeyed houses along the road is that the floor level with the road has been designed as a shop, and if for some reason it cannot function as such, it is used either as a store room or a garage (Fig. 123).

Electricity. Just before the Second World War the first diesel-driven power house was erected in AM12 by an emigrant returning from the U.S.A. It must have been a success, for soon after it was moved down into a new and bigger building on the main road, the building that serves as a corn mill today. The first power house was changed into the first diesel-driven corn mill, which soon became a serious threat to the old splash mills, and when Galatista finally was electrified by the state, the new power house on the main road was then in its turn converted into a corn mill (2), while the old one was left to decay together with the splash mills sometime in the forties.

Electricity was to further industry even more. I have already mentioned some of the industries situated along the main road, but within the village is another baker with an electric oven in AR3, who also exports bread to Salonica, and in EB3 there was, until recently, a small weaving-mill that made use of power looms producing imitations of the once famous hand-woven, thin blankets from Galatista.

Food shops could now be fitted out with refrigerators, and easily perishable goods could be stored, and today we have the remarkable phenomenon that Galatista buys factory made yogurt and feta, while it is nearly impossible to get hold of the equivalent local product.

When electricity was laid on in the homes, it was possible to widen the sphere of interest from the vil-

lage to the wide world through the radio, and lately even more through T.V., which is not lacking in any home, except in homes where old parents live alone on a meagre pension (3). Electric stoves are so far not very common. It is cheaper to use bottled gas or a kitchen range, that heats the kitchen / living-room at the same time with brushwood fetched in the maquis. Even the old ovens are sometimes used by the older generation, but they are completely repudiated by the younger generation that aspires to live like townspeople with exactly the same conveniences. To use ultra-modern equipment is a status symbol, just as the use of traditional means is considered a sign of backwardness and has become a target of ridicule, unless used by the very old.

Water. The last step was the connection to water, thus following the order of importance given to technologic progress elsewhere in Greece: carriage road, electricity and running water (4).

Water was at first taken from the springs, and soon every house had a tap, if not in the house, then at least in the yard. It was then possible to have toilets installed, usually in the basement (Fig. 67), or on the balcony (Fig. 110), or in an outbuilding (Fig. 66). This naturally resulted in increased use of water, and I still remember with dread staying in Galatista during the hot summer in 1978, when the shortage of water was strongly felt. Since we had only water from the tap for two hours a day, everybody was busy doing the necessary work and storing water to see themselves through the rest of the day.

Connection to water also put an end to growing vegetables in the gardens, since hardly any water is left for irrigation during the summer drought, so the vast irrigation system has been left to decay. The little water still coming out of the main fountains is sufficient only for irrigation at a few places, but then it is also utilized, though modern detergents have made the water fit for irrigation only in the afternoon, when pollution is less, since most washing at the fountains is normally done in the morning. The result is that the first greengrocers have turned up, and vegetables and fruit are now bought at the main vegetable market to the west of Salonica, some 60 km away.

From the beginning of the eighties water has been sent from the underground deposits in the valley up to water tanks above the village, and there is now sufficient water all the day. Fully equipped bathrooms with flush toilets have been introduced, and it is also possible to have a garden at the house, even during summer, or at least a yard full of pot plants. A sewer system has also been constructed on, and waste water is led down to the

Fig. 121. Part of the old carriage road.

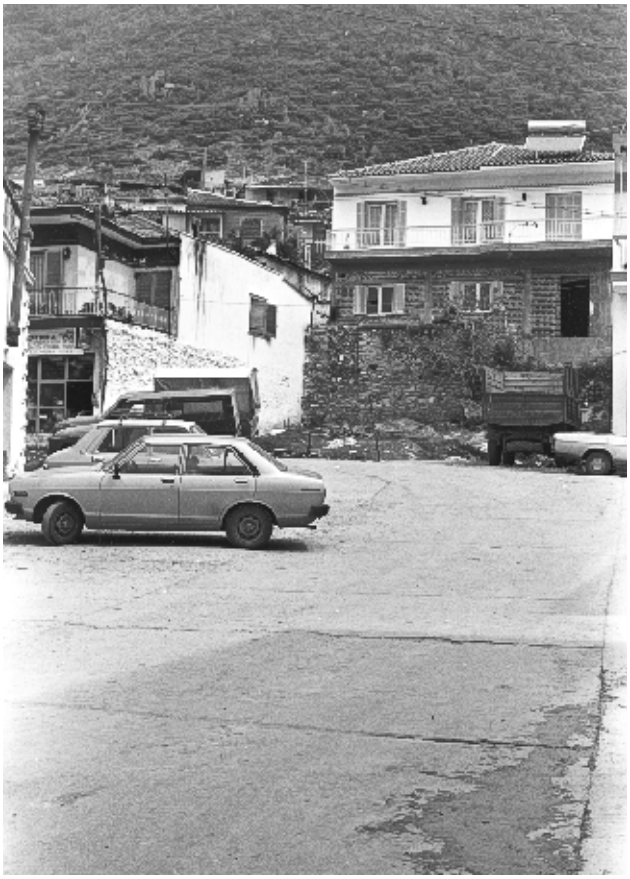


Fig.122. Solar heating-element on AF5.

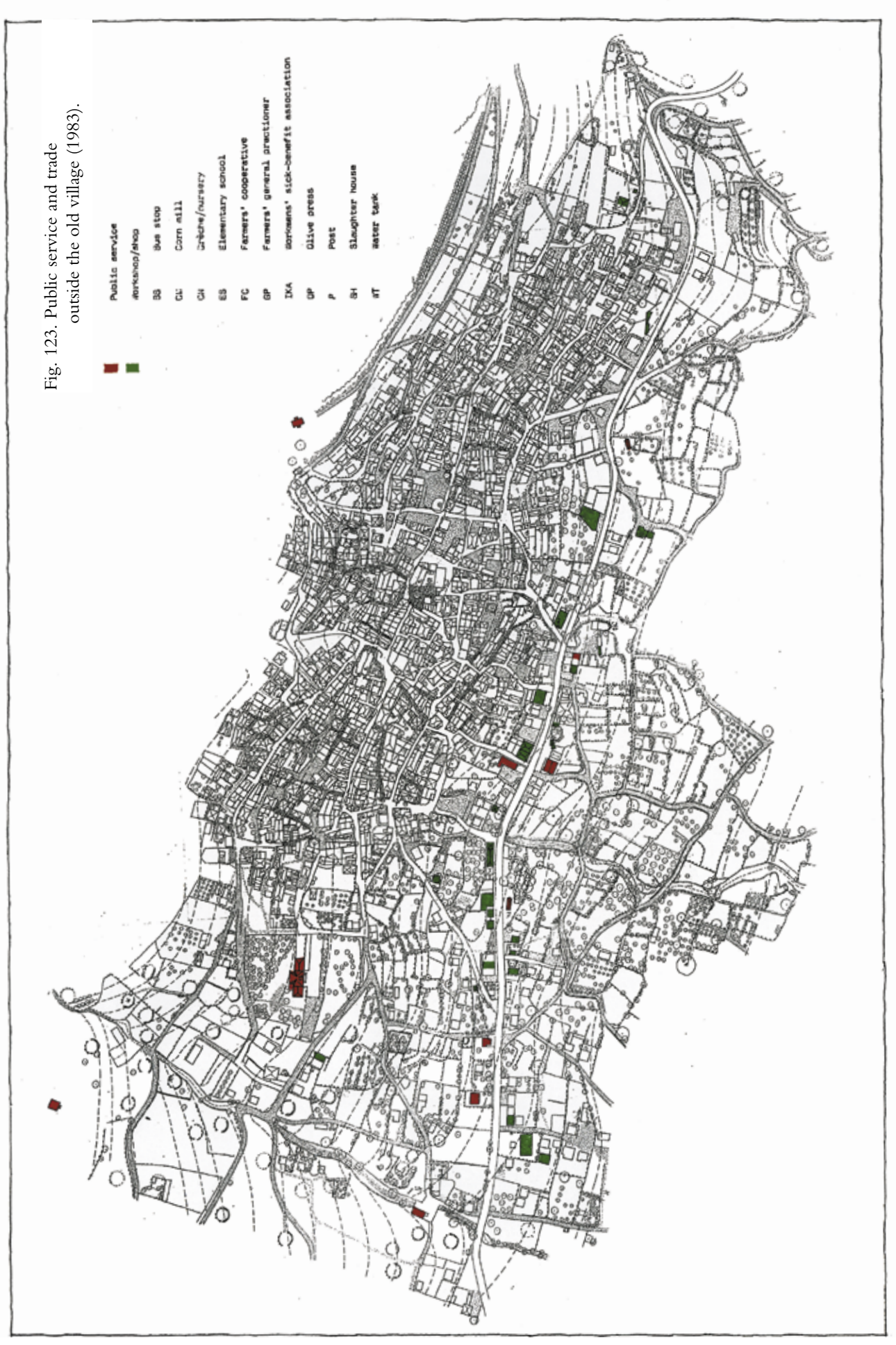


Fig. 123. Public service and trade outside the old village (1983).

Anthemous. Abundance of water has also made it possible to make use of solar-heated water, but the elements in their present form are so far completely out of tune with the old houses, and for that matter with the modern as well (Fig. 122).

Rubbish. Since self-sufficiency has been abandoned, and with it recycling of waste products, rubbish has to be collected regularly, and the contract for the task is awarded by the community. So once or twice a week rubbish is collected and simply dumped into a ravine to the west of Galatista.

Modern farming. The post-war period has seen a total shift from farming for self-sufficiency to farming for the market, from paying in kind to paying in cash. The most important step has undoubtedly been the redistribution of land (*anadasmos*), which took place in the seventies. Due to division among heirs, properties had come to consist of many small plots, dispersed here and there over a vast area, but now the farmer was given the opportunity of consolidating his various fields into one holding, so modern farming methods could be used more effectively. Today tractors have nearly totally ousted animals as motion power, only the older generation sometimes use them as a means of transport.

Agro industry. As a direct outcome of a good main road, electricification and running water, a small industrial area, in the outskirts to the west, has been able to develop. It consists mainly of pig and chicken farms producing for the market in Salonica. A big new olive press, making use of modern technology, has recently been built close to the main road, ousting a smaller one that was built in post-war times close to the mill race to the south of the main road (5).

To meet new demands, the community has erected a primitive slaughterhouse to the west of Galatista, and the farmers' cooperative has had a large store house built on the main road (Fig. 123).

Increased income. The effect of applied modern technology has been a considerable increase in average income: a four-member family earning 30,000 drachmas in 1961, would earn as much as 150,000 drachmas in 1971 (6).

The diagram below shows the occupation of the inhabitants in 1971 (7). Occupations with an asterisk are traditional, representing about 83.5%, while the rest are new. The diagram shows only what was the main occupation, not those that were part-time (8).

Agriculture, representing 69%, was still the main occupation, but this percentage does not show how many percent were living from farming alone, with no other occupation to secure an extra income. Most shop owners for instance also still live from some farming, and it is common for the wife to take care of the shop.

Occupation of the inhabitants in Galatista 1971 (9):

Agriculture★	800	69.3%
Industry	150	12.9%
Private office	8	0.7%
Business★	68	5.9%
Village council★	5	0.4%
Education★	17	1,5%
Cultural	7	0,6%
Coffee houses, tavernas★	25	2.2%
Social wellfare	13	1.1%
Insurance	10	0.9%
Church★	8	0.7%
Electricity, telephone	8	0.7%
Miners★	40	3.5%
	1,159	100.0%

Industry, the next largest group, was among others represented by inhabitants working in factories in the centre for light industry near Thermi (Fig. 2) and surplus labour from mechanized farming could be employed there. Commuting is still facilitated by a bussing service organized by the companies, which also applies to commuting to the mines at Vavdos and as far away as Yerakini.

Change in social structure. In Galatista, as in other parts of Greece, accelerating development, especially after the end of the Civil War in 1950, has naturally also upset the social structure (10). The extended patriarchal family is a rare phenomenon today: emigration to developing Greek towns and cities, here of course mostly Salonica, and later to industrial centres in Europe, where wages are better, have eased the pressure on land and housing, which this thesis has dealt with extensively, to such extent, that empty decaying houses have become a problem (cf. Fig. 127). Modern farm machinery has made working teams inside the extended patriarchal family superfluous, and surplus labour, especially among the young, has forced them to seek work in industry away from the village. The young still remain in their parental home until they are married, but their economic independence has gained them personal independence of the older generation.

The autarchic role of the father has started to be seriously challenged; the young no longer look up to their parents as examples for imitation. Many parents have bewailed this to me: their children do not respect them anymore and consider them backward and uneducated. The result has also here been a generation chasm, which is reflected in the planning of the youth centre down by the main road, far away from the supervising eyes of their elders.

Young people have hardly any other prototypes than those presented to them by mass media, first of all television, which so far has resulted in the superficial imitation of patterns of behaviour, completely foreign to their upbringing. There has been a cultural breach, something that might be called "Americanization", although certain inherited customs and ways of life with any meaning to the young, have not been thrown overboard: the same young person, who enjoys dancing in a discotheque, is quite ready to dance Greek folk dance the next day at a village festival, and enjoy it with his whole being, and gregariousness and hospitality are no less expressed in the younger generation than the older.

The disintegration of the extended patriarchal family may in time result in other human relationships. Friendship and support will have to be sought outside the family now, and may be the first step away from the family egotism of old, preparing the way for a new society founded on mutual cooperation and trust among non-related individuals, for without this there cannot be any true progress.

Social service. The breaking up of the extended family has required the community to take over some of its functions: a crèche and a nursery school have been erected down by the main road, and another nursery school existed until recently in AA3. (cf. Fig. 123).

An office belonging to the Workmen's Sick Benefit Association (I.K.A.) has been set up in another building on the main road, and is also in possession of a garage with an ambulance. The farmers belong to another Sick Benefit Association (O.G.A.) and have their own state-employed general practitioner further up the road.

New middle school. When nine years compulsory school attendance became law in the seventies, the school to the west of Galatista could not cater for the increased number of pupils, so a new middle school was built on the main road towards Salonica. Now only students who want to attend the three upper classes of the Greek high school, that have to go by bus to Vasilika or Poliyiros.

Clubs. Relief from heavy bodily work and increased spare time have resulted in the establishment of two clubs for joint activities: a sports club and a club for cultural activities, both located in AC3.The first makes use of the sports ground to the south of Galatista, the second arranges social gatherings and excursions, and also formed the basis for the first library in Galatista. These two clubs have revived the festivals of Epiphany to raise money for their activities.

Modern family politics. During the last few years there have been important reforms in family politics (11). Dowry has been abolished as unworthy of civilized people, and daughters inherit now with the same rights as the sons. There is no longer, at least legally, an autarchic father with the absolute right to decide in all matters concerning his family; his wife's opinion must be heard too. Daughters do not change their family name at marriage, but it must be agreed upon beforehand, which of the two family names the children are going to have. Furthermore it is no longer difficult to get a divorce, although it is still considered a social stigma, but it can put an end to much exploitation, usually on behalf of the husband, due to his stronger financial position and age-old privileges. Now he is bound to pay his wife one third of the common fortune gathered after marriage in case of divorce, unless she can prove that she has also contributed in cash to the family fortune. This is especially unfair to the farmers' wives, since those of the older generation have often worked a great deal more than their husbands, both in the fields and then at home, when the husband just walked off to relax in the coffee house. Still to be fair, the tractor has freed the farmer's wife from most work in the fields today, and left her more time to care for her home, and today the farmer's home is just as well-kept as any townsman's. Women's clubs for equality have been encouraged by the state all over Greece, and television shows programs designed to promote awareness of age-old discrimination.

Education. Education has become extremely important in post-war Greece as a way not only to secure the future of one's children, but certainly also as a means of social progress. Fierce competition for the highest marks starts early in school, for good marks enhance the prestige of the family and further its aspiration to see sons, and now also daughters, obtain admission to higher education.

In towns there is a phenomenon peculiar to Greece: expensive private tutor institutions that coach pupils to get as high marks as possible in order to pass the entrance examination to the universities. This is very unfair to

children in Galatista, and many other villages, that are thus not able to compete on equal terms, since there is no such institution (12), and it is anyway a solution barred to most children of limited means, whether in towns or villages (13).

Language is also taught mainly privately at small language institutes, and even in Galatista. English has been taught for years, at one time in AL1, later at different places down by the main road. Quite recently an English / French language institute was opened in BE8.

The thirst for education is of course not merely a question of prestige, but just as much a vivid expression of the alert mind of the Greeks.

New standards of valuation. If one asks people in Galatista if they prefer the new way of life to the old, the answer is without hesitation yes, the toil of old is still remembered with trepidation. But among the very old the answer is conditional. The old women remember fetching water at the fountain as a social event, and one wise old woman complained that today people are not as kind and innocent as in the old days, that they have been seized with the anxiety of being left behind in social progress and prestige, which has now become an individual target and not any more that of the group: the extended family. If poverty may be judged by the divergence between what people have and what they want, the inhabitants in Galatista are probably poorer than they have ever been.

Change in plan: self-grown extension. Development, which had already started outside the confines of the old village in the interwar period (cf. Fig. 106), has now accelerated even more due to abundance of money. Houses have been built not only along the main road, but now also along dirt roads leading out to the fields, or in the old gardens, which are not called so anymore, but "plots". Another favourite building-plot is unfortunately on top of the threshing floors, due to their convenient level surface. One may say that a kind of suburbia has developed with houses surrounded by gardens and with the same division: farming area in the basement, dwelling on the first floor, as back in the old village, but the new farm houses have one advantage over the old: there is room for tractors and other mechanical farm equipment.

Planned growth. The village authorities have attempted some deliberate planning to the north east of the village. Two roads have been dug out on the level and some emigrants have built houses in order to spend vacations in their native village.

Impact of modern wheeled traffic. Traffic has lately become more and more problematic, since the narrow lanes of the old village had not been designed for that purpose, and sometimes it can be very dangerous for pedestrians, especially small children and old people. More people can now afford to own cars and tractors, which they naturally want to park near their home. Every open area of some size is used for parking and the day may not be far when this will not be enough.

The cobbled pavement of old has been covered with concrete (14), which can carry heavy traffic, is cheap and also more convenient for modern footwear. But during winter, when Galatista may be covered with snow a few weeks, it is difficult to get rid of the melting water which freezes to ice in the night, and it can be perilous to walk on, especially for old people, whom I have heard complaining about it. The soil between the cobbles would formerly not only absorb the melting water and prevent formation of ice, but also clear the streets from snow, and much faster at that. Quite apart from that, concrete is optically dull, without sufficient contrast to the white-washed houses.

In the former garden area roads have been broadened for the sake of tractors. Retaining walls have been demolished ruthlessly, and the enormous labour of distant ancestors is treated with blind contempt. Soon erosion will take over, and their ignorant descendants will be forced to do something about it.

Present situation in the old village.

Trade. It appears from the map (Fig. 124), that most trade inside the old village is concentrated at the *agora* with some extension, mainly along the old caravan route. Most shops outside the *agora* do not function as such, and if they do, they are nearly always small grocers or bakeries supplying the immediate neighbourhood with daily provisions.

When new houses are built at the *agora* or along a street carrying a good deal of traffic, they are mostly planned in such a way that floorage in street level may be used for some kind of trade, which is made even simpler through the commonly applied constructive principle of today: reinforced concrete skeleton with curtain walls of perforated bricks, which indeed provide the house with a very free plan disposition.

About half the shops are not used as such. They may have been integrated into the dwelling, used as a store for goods, or just left empty because the house has been abandoned.

Shops in old houses along the former caravan route have nearly all been shut down, especially in the part

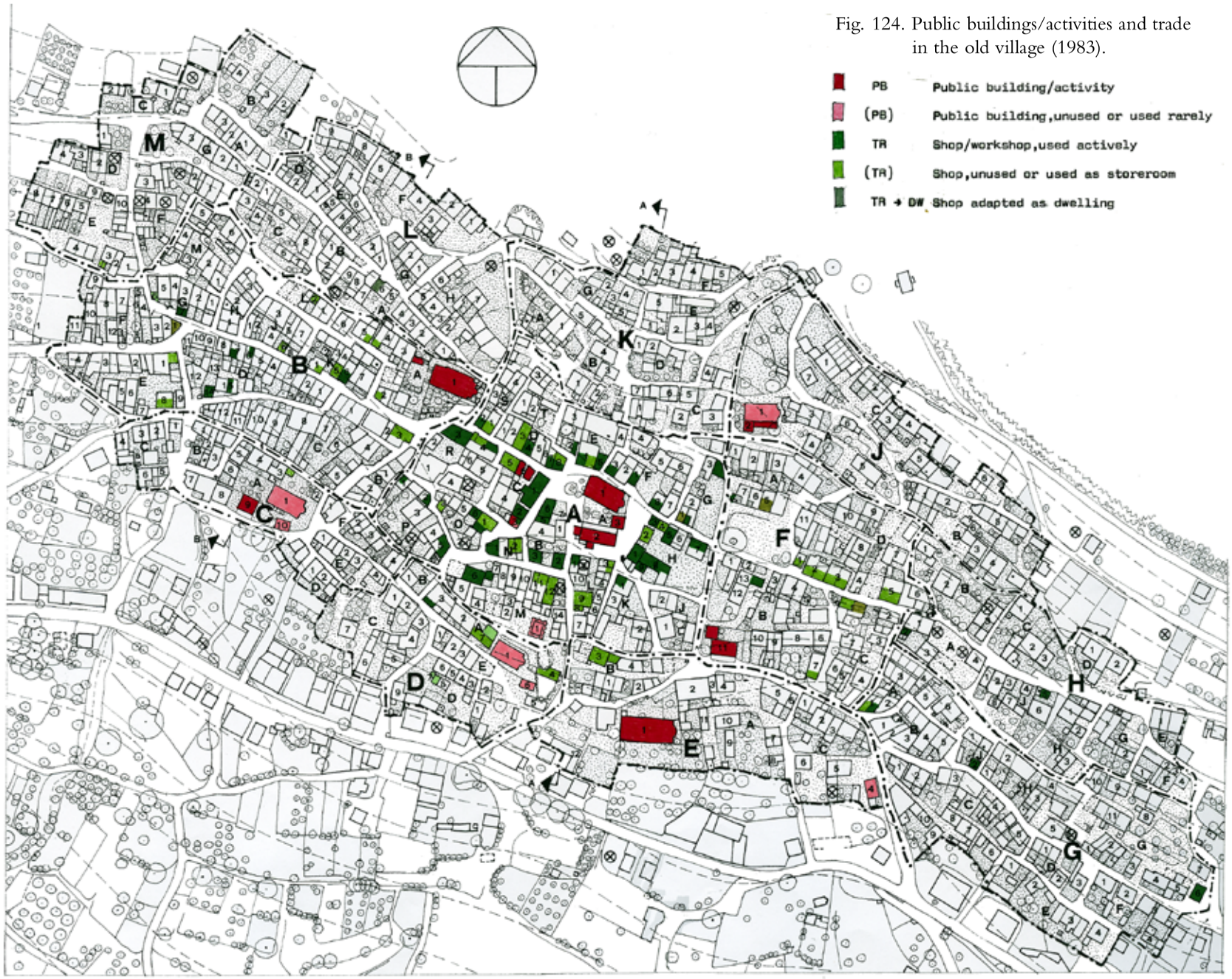


Fig. 124. Public buildings/activities and trade in the old village (1983).

towards the east, which has hardly any traffic passing by anymore.

The many empty shops are due not only to overestimation of actual needs (new buildings) or lack of sufficient space or suitable position today (old buildings), but also to increased competition from the new trade centre along the main road.

Farming. Looking at the map (Fig. 125) it is evident that great change has taken place, that farming is no longer the way of life for everybody as it was in the past. In about half the farm houses, the basement is still left as it was originally, with its stable, barn and store rooms, and with the traditional double-leafed oak gate still intact. But in many cases the farm is not worked any more, maybe because the old farmer has retired and lives on his pension (e.g. EB4, HFl, JB4 etc.), or maybe the owner makes a living in some other occupation, for instance as a workman (e.g. BG2w, GC3w etc.), and has not yet made the basement part of the dwelling, which is otherwise very common today.

The map also bears witness to the striking amount of uninhabited houses, or houses that are not inhabited permanently, all in all about one fourth of the total number. Abandoned houses are just left to decay, either because the owner has built himself a new house in "suburbia" (e.g. Kanavas house BA2w) or he has left Galatista for good and does not care for his property back in the old village (e.g. Goutsaris house KB4w). Another problem are houses that have been inherited by several people, who cannot agree to sell them, or are waiting for the value of the plot to increase sufficiently to make it worthwhile, and meanwhile the house is just left to decay for lack of maintenance, thus also making it is easier to obtain permission to demolish it.

Some twenty houses have been demolished, and some have become ruins, while this research has been going on (15), but they have been included as they were on the map, in order to give a more complete image of the built environment, as it was only a few years ago.

The many houses, about one fourth in total, that have had the front part of the basement annexed to the dwelling, usually as a kind of entrance hall, represent some more recent phenomenon. The old gate has been changed for a modern iron door with reinforced glass panes, windows may have been inserted, and the former clay floor has been covered with cement, while the back part has become a mere store room (cf. Kanavas house BA2w), unless it has been possible to insert windows. This change has come about as a direct result of the modern cash economy and technology: tractors and modern transport means have made the stabling of draught animals superfluous, and the cooperative movement has made the storing of crops for the market possible outside the home farm.

Dwelling. Comparing the two maps (Fig. 126 & 127) it is appalling how prevalent dwelling on the first floor still is. If there is residence, originally planned as such in the ground floor of preindustrial houses, it is always found in the one-storeyed houses with the sole exception the Byzantine *archontiko* AR1. Such one-storeyed houses may belong to poor shepherds at the fringe of the village (e.g. LE8, LE9, MB1, MB2, MB3), where barn and stable are under the same roof as the dwelling. They may also be detached dwellings, built in the yard as an extension of the old house (e.g. BJ7, FB9), while some other one-storeyed dwellings seem to have been adapted in former out-houses (e.g. BC6, EA8, GC9, GG8, KG5, LD3).

In modern buildings without prospects either of trade or farming, the ground floor is used for dwelling, and in two- or three-storeyed dwellings, related families may occupy each one floor as in many apartment houses in the towns.

Abandoned houses. On the map (Fig. 127), there has been no distinction made between abandoned houses and houses that are inhabited only seasonally. The latter, estimated to comprise about one fifth of all houses, are owned by heirs that have made a living long time ago outside the village and now return, usually in summer, to spend some time in their native village (e.g. Panelas house KB4w), or they may belong to old widows spending the winter among their children in Salonica, and the summer only in the old house (e.g. Trigona Mastrokosta's house GG7e). Most abandoned houses are found in the three neighbourhoods at the top of the village: J, K, L and M. In J, L and M about one third are abandoned, and in K it is between one third and one fourth.

Three-storeyed houses. The majority of three-and four-storeyed houses represent the former *archontika* of the village, and it is striking that most of them are situated at the *agora*, along the old caravan route and close to fountains (Fig. 128) (16). The large *archontiko* EA2 is the only four-storeyed house in Galatista, and it was originally double size: the wing to the north, which bridged the street, has been demolished (17), but it is still possible to see remains of beams in the north facade of the house.

The ratio between different functions. In order to show the comparative material of the maps (Figs. 124- 128) more explicitly, the total areas of the different functions have been calculated and their ratio, compared to the site

Fig. 125. Use of groundfloor (1983).

Fig. 126. Use of groundfloor (1983).
Dwelling:

Fig. 127. Use of first floor (1983).

Fig. 128. Use of second floor (1983).
Dwelling:

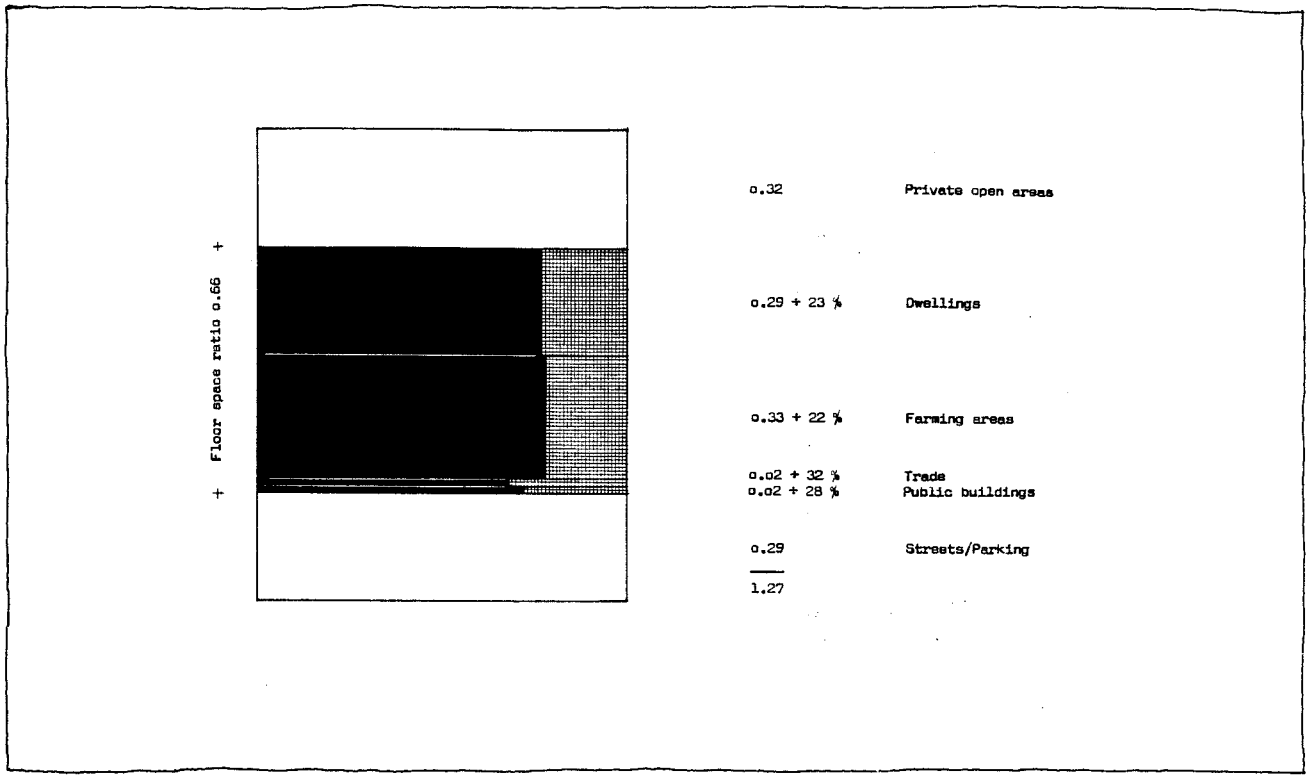


Fig.129. The space ratio of different functions in the old village.

area of the whole village, ca. 18 ha, has been presented in the diagram (Fig. 129).

The diagram shows clearly that the farming area is only slightly bigger than that of the dwellings. As already mentioned above, the relatively mild climate has made vast areas for storing farm products superfluous, while lack of sufficient drinking water has made extensive stabling of livestock impossible inside the village.

The diagram also makes account of the vast area of abandoned farm houses, close to 25%, empty shops, close to 30%, like that of public buildings (18). As nearly all cobbled lanes were covered with concrete in 1983, areas inaccessible to wheeled traffic have been reduced to a minimum.

The table (Fig. 130) has been worked out to facilitate comparison between important phenomena like numbers of abandoned farm houses and shops, floor space ratios and number of dwellings per ha in different neighbourhoods. It can be seen from the table, that the neighbourhoods J, M and L have suffered the most serious emigration so far, that one third of the farm houses have been abandoned. In the same table it appears that these neighbourhoods are also the only neighbourhoods without shops, or only a few empty small shops, since the site up here has not encouraged trade. These neighbourhoods must have been the poorest in Galatista, something that profound socioeconomic research of the whole village would throw light on, far better than the simple testimony of the present optic material.

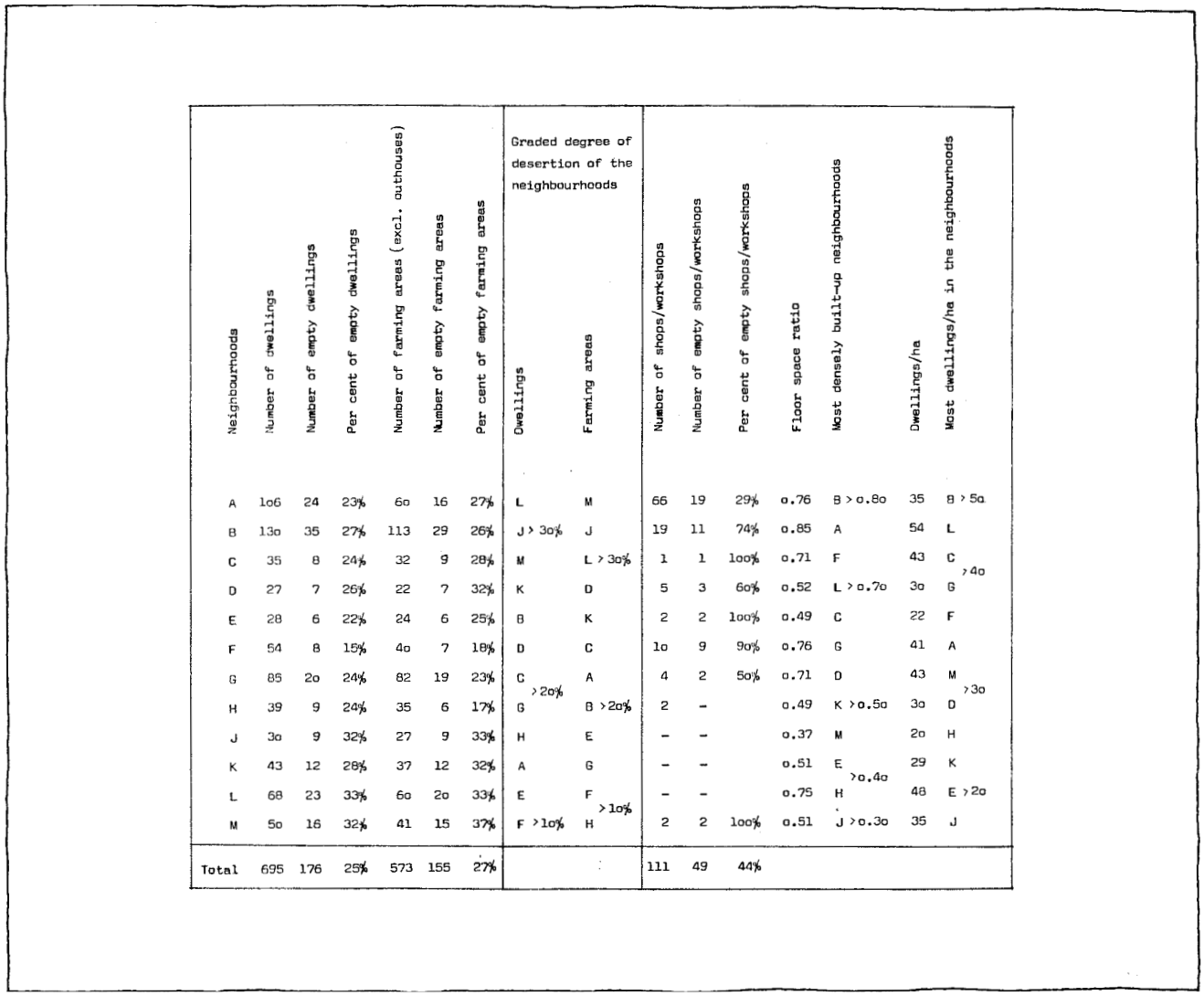
The average floor space ratio of the whole village is 0.66, but there is a significant difference between the extremes. The most densely built-up areas are the *agora* and streets leading out to the fields, here especially along the old caravan route close to the *agora*, and it is also here that most shops are concentrated.

The least densely built-up neighbourhoods are E, H and J, which apparently has something to do with the fact that parts of them may originally have been terraced land, and for that reason also, these areas that have been developed relatively late.

The number of dwellings per ha follows on the whole the floor space ratio with the exception of the *agora*. The large floorage of public buildings, the many one-storeyed shops, some very large dwellings and the relatively larger open area have contributed to this, and at the same time added to the distinctive character of the village centre compared to the other neighbourhoods.

The diagram (Fig. 131) shows the distribution of floor space of the different storeys plus the open area as compared to the total size of the site area. The floor space ratio, density of buildings and degree of built-up area are also apparent from the diagram, but a few numbers, though only instructive, make it more plain.

Floor and space ratio	c. 0.66	
Density of buildings	c. 0.39	
Degree of built-up area	0.39/0.61 =	c. 0.64



Neighbourhoods	Number of dwellings	Number of empty dwellings	Per cent of empty dwellings	Number of farming areas (excl. outhouses)	Number of empty farming areas	Per cent of empty farming areas	Graded degree of desertion of the neighbourhoods: Dwellings	Farming areas	Number of shops/workshops	Number of empty shops/workshops	Per cent of empty shops/workshops	Floor space ratio	Most densely built-up neighbourhoods	Dwellings/ha	Most dwellings/ha in the neighbourhoods
A	106	24	23%	60	16	27%	L	M	66	19	29%	0.76	B > 0.80	35	B > 50
B	130	35	27%	113	29	26%	J > 30%	J	19	11	74%	0.85	A	54	L
C	35	8	24%	32	9	28%	M	L > 30%	1	1	100%	0.71	F	43	C > 40
D	27	7	26%	22	7	32%	K	D	5	3	60%	0.52	L > 0.70	30	G
E	28	6	22%	24	6	25%	B	K	2	2	100%	0.49	C	22	F
F	54	8	15%	40	7	18%	D	C	10	9	90%	0.76	G	41	A
G	85	20	24%	82	19	23%	C > 20%	A	4	2	50%	0.71	D	43	M > 30
H	39	9	24%	35	6	17%	G	B > 20%	2	–		0.49	K > 0.50	30	D
J	30	9	32%	27	9	33%	H	E	–	–		0.37	M	20	H
K	43	12	28%	37	12	32%	A	G	–	–		0.51	E > 0.40	29	K
L	68	23	33%	60	20	33%	E	F > 10%	–	–		0.75	H	48	E > 20
M	50	16	32%	41	15	37%	F > 10%	H	2	2	100%	0.51	J > 0.30	35	J
Total	695	176	25%	573	155	27%			111	49	44%				

Fig.130. Table of data concerning each neighbourhood.

Finally a few numbers that can only be interpreted as to their relative value

Average floor area of the dwellings (19) ca. 73 m^2
Average floor area of empty dwellings (19) ca. 63 m^2
Average floor area of farming areas (20) ca. 102 m^2
Average floor area of empty areas (20) ca. 64 m^2

The average areas of empty dwellings, and especially empty farm areas, are strikingly smaller than those of inhabited farm houses and make up yet another optic testimony to the poverty that had forced so many inhabitants to emigrate.

Change in architecture. Today everybody wants to live in the same way and in the same kind of houses as in towns, i.e. with all modern facilities and the same interior decoration. The word "peasant" (*choriatis*) has become a word of abuse, and the villagers are not proud, but ashamed of their cultural inheritance. To them the old houses have become visual evidence of backwardness. Only the last few years have seen some change in their conception due to propaganda on T.V. and in the press, in order to save what is left of this Greek cultural inheritance. Yet in far too many cases it is too late, the homogeneity has been disrupted by ugly new buildings that are out of tune with the old. Although Galatista has been declared conservational among some other 400 villages in Greece in 1978, and the demolition of traditional buildings prohibited, there is no end to the inventiveness of the villagers, when it comes to evading the law (21). Still they may be excused, because there are no prototypes of well-restored and modernized houses, nor any state service to assist, and low-interest loans are nearly impossible to obtain, especially now because of the general economic crisis in Greece.

Modern houses. After the Second World War new building materials such as reinforced concrete and machine-

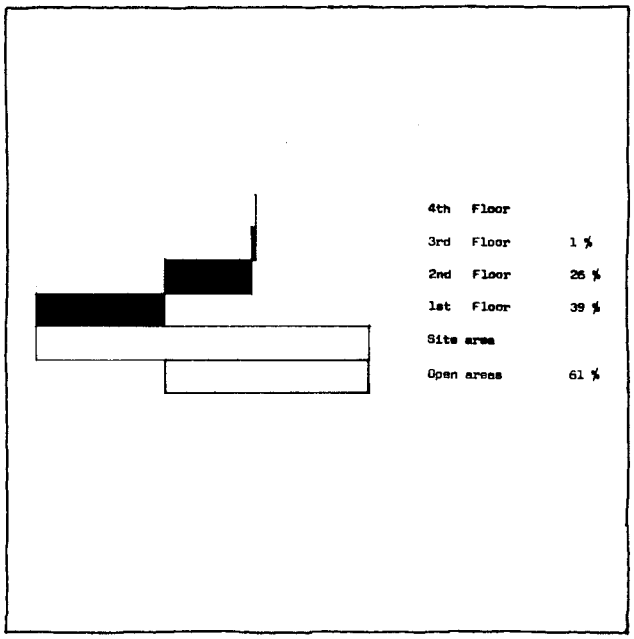


Fig.131. Distribution of floor space.

made bricks were introduced for good and house building left solely to professionals (Fig. 132). The prototypes for those who could afford a large house were the anonymous apartment house of Greek cities. They had appeared as cheap jerry-built mass products after the Second World War, when the big rush from the country to the civic centres had seriously set in. The apartment house type consists of a reinforced concrete skeleton with walls of perforated machine-made bricks. The theme is always the same: [:pillar, French door:] in one endless monotonous repetition, and with narrow balconies all along the facades with more or less the same parapet of iron shapes, with or without glass panes (Fig. 133).

These houses also possess the characteristic front and back facades, the latter usually given no consideration at all, which in a way is to follow tradition, but the facade to the street is now always the representative, and the sun orientation of old is only applied if the facade to the street happens to turn towards south. To mark one apartment house from another, they have been given different colouring, often very contrasting. The roof is often only the last concrete plate, but sometimes reinforcing bars sticking up at the corners, revealing that the owner intends to add another storey or two. The plan of the flats does not conform to any other restrictions than those put down by the rigid order of the facade and the supporting columns. The personal whims of each owner determine the rest, and for that reason there are rarely two flats with the same plan. Access to flats is all too often from dark corridors; even in new houses down by the main road there are such solutions, copying prototypes that are close to being slum-building, and for that matter found both in rich and poor parts of Greek towns.

The one-family house. The less affluent would build one-family houses conforming to modest prototypes in the suburbs of Salonica. After the Second World War living in one-family houses in Greek towns was not prestigious, because they were either old houses without modern comforts, or houses built by squatters that had acquired a cheap plot outside areas included in the town plan and so mostly without good roads, electricity, running water and a sewer system. The quality of construction and building materials is usually of a very low standard, and yet they are often much more adequate for living in, than the jerry-built apartment houses in the centres of big towns, since basic needs like fresh air, light, greenery and low density are at hand and maybe even more important: the owner is capable of slowly improving his house, especially if the area is eventually included in the town plan and so legalized (22).

One-family houses are mostly built of perforated bricks with concrete floors, but if they are two-storeyed they are built the same way as the apartment houses. Sometimes they are left just with a concrete plate as a roof, but if the owner can afford it, a genuine tiled roof is erected, since it offers better climatic protection and insulation.

When the one-family house conforms to the hip-roofed bungalow type (Fig. 134), which was the common new house type in Greek villages after the Second World War, its closed form does not go too badly with the old houses, presupposing that dimensions are in tune with the surrounding buildings, and that wood, not metal, has been used for doors and windows.

Neomacedonian villas. The last few years have seen a new house type outside Salonica: the detached villa surrounded by a large garden (23). These villas are only permanently inhabited if the distance to Salonica is not too big, otherwise they are used only on weekends or holidays. Most of these villas are built in an entirely new style, that one might call neomacedonian. They do not follow international architectural currents, but have the famous Macedonian *archontika* as their prototypes (cf. p. 70). In the best of these villas imitation has given way to rather free use of bays and verandahs, and the prototypes have became mere springboards for free invention and further development into houses that are more fit for today's standards of living.

At Panikova (Fig. 3) there is an example of such a villa surrounded by its garden (Fig. 135). The house is in real-

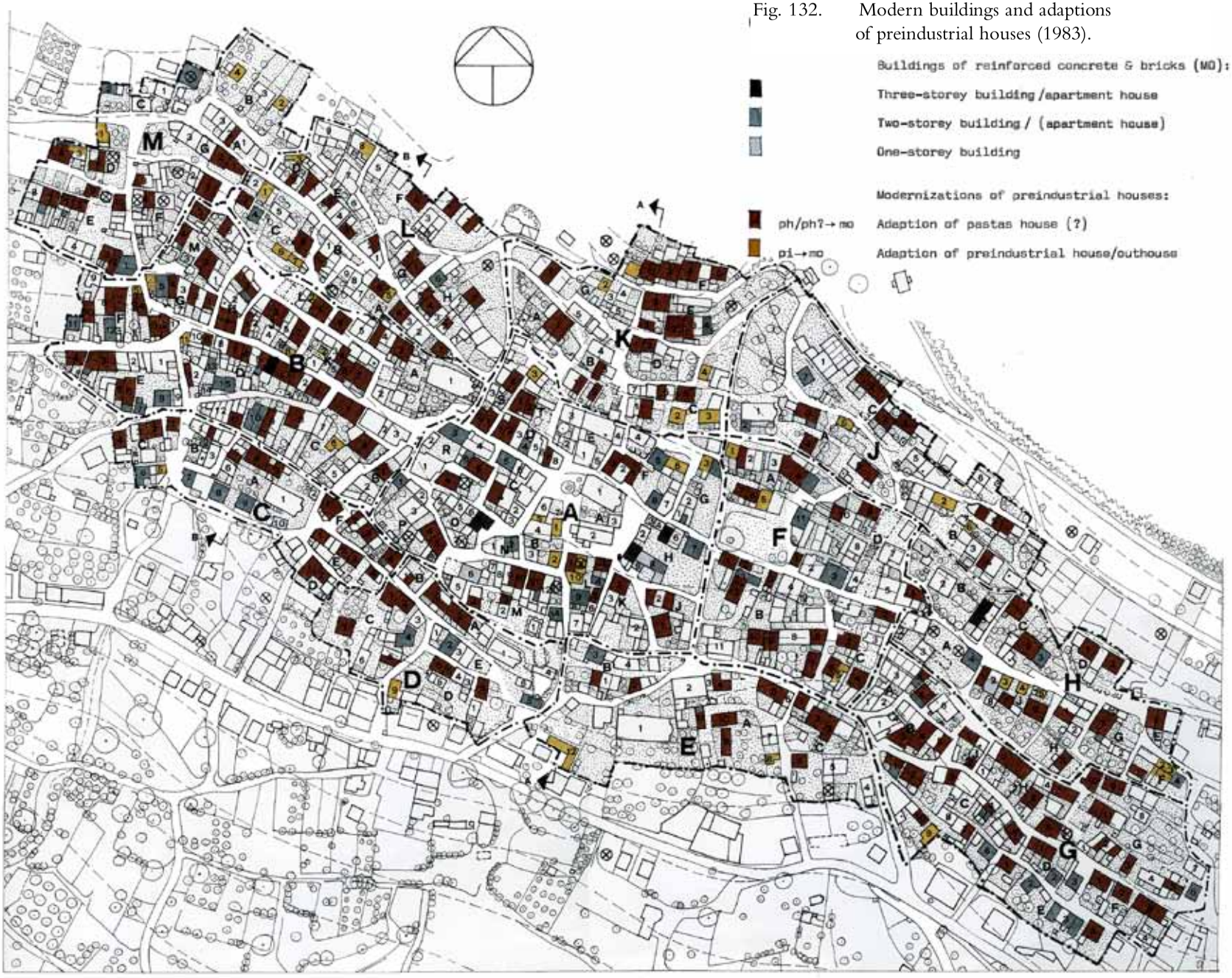


Fig. 132. Modern buildings and adaptions of preindustrial houses (1983).

Fig.133. Apartment house AH1.

Fig.134. Bungalow GD2.

ity a reinforced skeleton structure with brick curtain walls (24), that have been rendered and even covered with granite slabs on the facade of the ground floor, thus imitating the stone walls of the Macedonian *archontika*. The *sachnissi* of the first floor is supported by brackets carrying nothing, the same applies to the wooden pillars of the *chayati*, and yet this house is much more pleasing to the eye than the parsimonious and rigid form of the apartment house. Choice of materials is also more akin to that of the traditional house: whitewashed rough rendering, Spanish tiles and only wood for doors, windows and balusters. Still the house lacks the honesty of construction inherent in the prototypes that were built by the old master builders.

The neomacedonian house. Before 1983 only one house had been built in neomacedonian style inside the old village, namely DA5, which was built at the site of a former splash mill (cf. Fig. 9 & 136) (25). The house clearly bears witness to the problem of adapting the style to modern demands: the difficulty of fitting the enormous iron sheet gate of the garage together with the different formats of doors and windows. The most sympathetic aspect of this house is the choice of materials that fit the old village, apart from the iron sheet gate, and the fact that there are no false supporting elements. The columns of the verandah actually support the roof, which is of timber, not reinforced concrete as in the house at Panikova.

Since 1983 three more houses have been built in this style. One is an enormous house to the west of MF2 (Fig. 137), which has been left unfinished for years. At this house neomacedonian elements have been mixed with elements and dimensions that are foreign to the style, but the columns of the verandah also support the timber roof in this case.

At the *agora* a neoclassical house, AL2, was demolished to give way to the present neomacedonian (Fig. 138). This house has many false elements like the house at Panikova, and here even false tie layers too, but in spite of that the house is more interesting than DA5, and the modesty of its form fits much better into the built-up environment than the house at MF2.

Finally there is another house, which has been built at the site of a demolished one-storeyed house AM13 (Fig. 139). This house has the same modesty as AL2 in form and it fits well into the surroundings (26), but the columns support nothing as the roof is reinforced concrete, and the large opening of the gate seems to break the house up.

Modernizing the preindustrial house. In post-war restoration of the preindustrial house in Galatista traditional building materials are superseded by reinforced concrete

Fig.135. Neomacedonian house at Panikova.

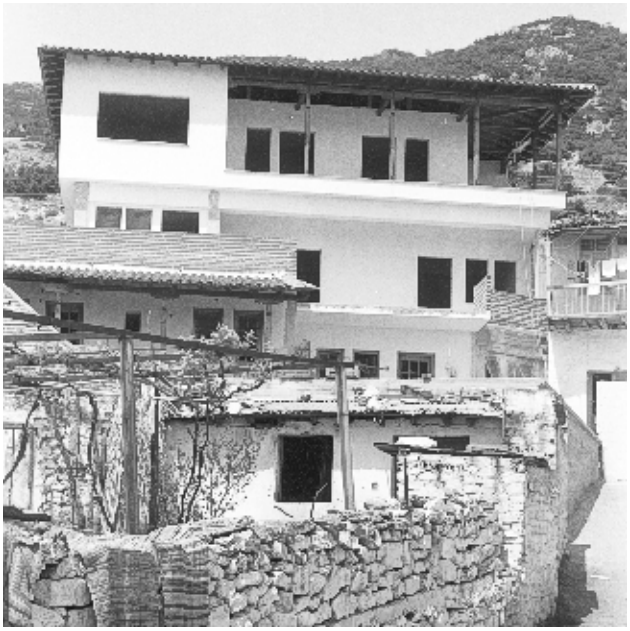


Fig.137. Modern house to the west of MF2.

and bricks; only roofs are normally reconstructed with timber. The *chayati* is walled up with bricks, which are also used when reconditioning old rubble walls.

Reinforced concrete is used both for balconies and exterior staircases, and the whole house is rendered with a smooth finish, every effort been made to make the old house look like a modern one-family house: the roof is covered with French tiles, the windows are square with collapsible louvred shutters, and main doors are usually painted iron sheet doors with reinforced glass panes. The

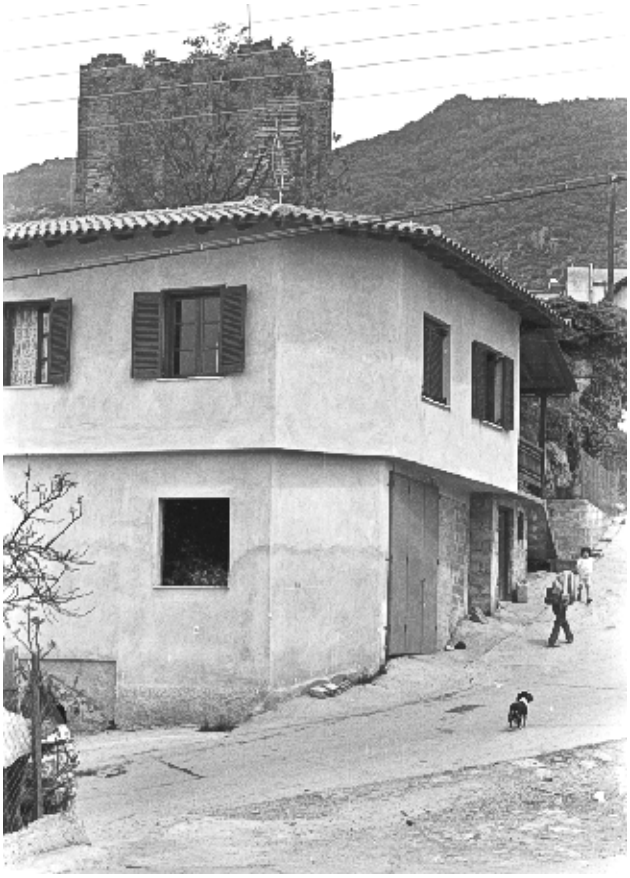


Fig.136. Neomacedonian house DA5.

Fig.138. Neomacedonian house AL2.

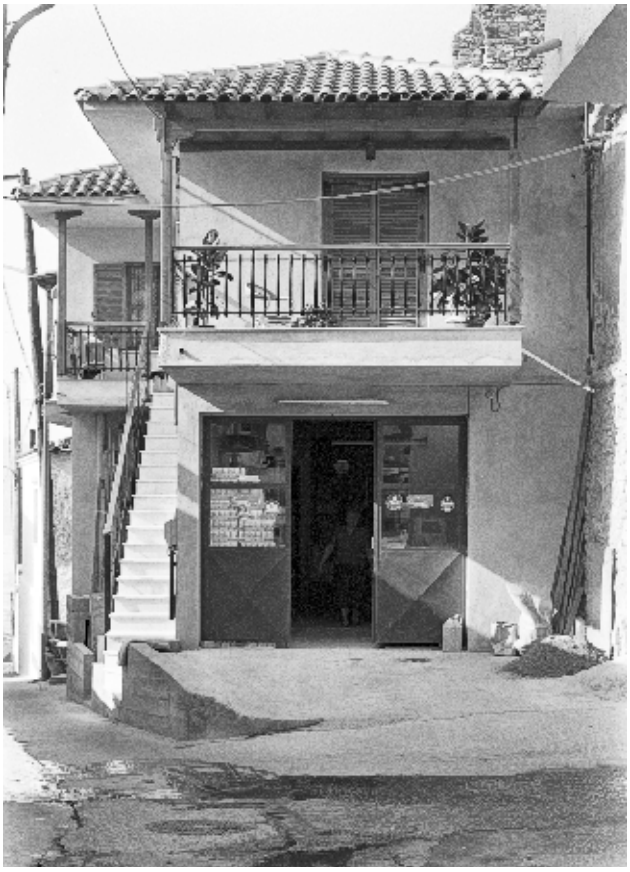


Fig.139. The new house at AM13 seen from the north.

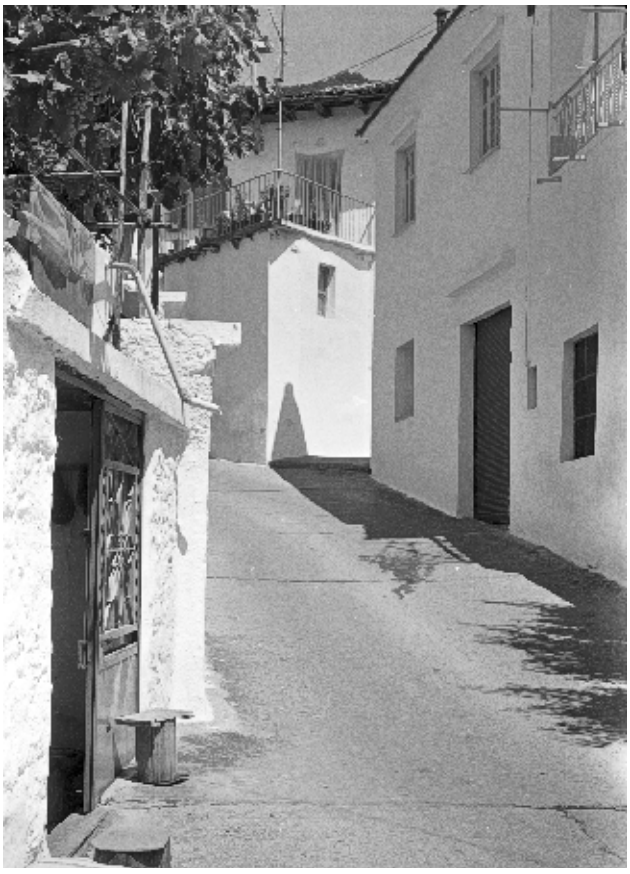


Fig.140. AJ1 seen from the south.

house is normally whitewashed, but is sometimes painted in contrasting colours. Only the thick walls in the basement, often with small irregularities in the surface, reveal that this is a preindustrial house in disguise. Sometimes the whole of the first floor has been pulled down and rebuilt on a reinforced concrete plate cast *in situ* on top of the old rubble walls (e.g. AJ1, BD1, DD6, FA6, FA7 etc.) (Fig. 140).

Many houses testify to the owner's wish to separate the farming area from the dwelling on the first floor, especially if livestock is still stabled there. This is obtained by an exterior staircase of reinforced concrete in the yard, and is also the only solution in case an entrance cannot be fitted into the north wall towards a street, for instance when the house has not been built into the slope (e.g. CE2, CE3, CF3, FA 6 etc.), or the house has only a narrow passage to the north like in the Y. Goutsaris house KCle. Some of these houses have also had the wall towards the street pulled down and substituted with an iron railing, and the yard has become a small garden (e.g. CE2, CE3, KCle).

Post-war building boom. This enormous building activity is evident, when looking at the map (Fig. 132). About half of all preindustrial houses have been subjected to renovations or radical rebuilding, while about one tenth are modern buildings of reinforced concrete and bricks. What is left, i.e. a little more than one third, are preindustrial pre-war houses, and it is among these houses that some of the best and most interesting are found, since there is neither the disagreeable antithesis between preindustrial and post-war foreign elements that mars most facades of modern renovations, nor the same provocative discord in relation to the built-up environment of the preindustrial village as is the case for most all-modern houses.

The vast number of renovations is indeed yet another testimony to the great versatility of the *pastas* house, and also to the fact that it can pay to rebuild rather than to build a new house.

Comparatively there are more and larger modern houses in the *agora*, which is hardly surprising, but at the same time there is also the highest rate of preindustrial houses still intact, just as in neighbourhood L, but here it is a sign of poverty with its high rate of abandoned houses and small number of modern buildings.

On average a little more than half of all preserved preindustrial houses are abandoned (cf. Fig. 127), which is also the reason why so many of them are still intact in a village like Galatista, where rebuilding of old houses has for so long been a dynamic and economic expression of adaption to new requirements and new ways of life.

Still, more often than not, modern renovations could

mostly have been so much better, both technically and aesthetically, for builders have not been "working right up to the technological ceiling of their culture, nor up to any aesthetic ceiling" (27), since there is hardly any such accomplishment among the prototypes. For that reason most post-war houses are far inferior to most preindustrial houses. The following summary of post-war influence on the built-up environment must thus necessarily take the form mainly of criticism.

Deliberate planning. As mentioned above, the village authorities have already tried to make some deliberate planning above the village to the north east, and in doing so they have, probably unconsciously, followed age-old tradition by expanding the village on the steep unfertile soil of the village common and by laying streets out in level. Above this a new pine forest has been planted, not only to prevent flooding but also "for beauty", as someone expressed it. Nevertheless this area is being developed, not for farm houses, but for seasonal dwellings belonging to people who have emigrated from the village, and some enormous apartment houses have shot up, standing as they are in glaring contrast as to size, style and building materials, to the modest built-up environment of the old village (Fig. 141).

Fig.141. Seasonal dwellings above the village.

Planless growth. At the same time as the old village is emptied out, because of its many abandoned houses, free development flourishes just outside its confines, where any plot beside a road has become a potential building site, and neither terraced gardens nor threshing-floors are any exception to this; if they have possess the right position, they are doomed in advance.

Development along the main road has caused a lot of trade to be transferred to this area, leaving many shops empty inside the village. Even the social benefit institutions have been established here, although such institutions as the crèche, the nursery school and the middle school undoubtedly would have been much better situated at a place much closer to the old village, for instance on the vast ground of the elementary school, so they could be reached on foot, without fear of too much wheeled traffic.

City habits of evening strolls, or after-church strolls, started to take place on the main road a few years ago; this can sometimes cause genuine traffic jams, especially on Sunday evenings during summer, when everybody is out, and there is heavy traffic of cars returning from seaside resorts in Chalkidiki.

Traffic problems in the old village. The narrow streets have not been designed for wheeled traffic, nor the old

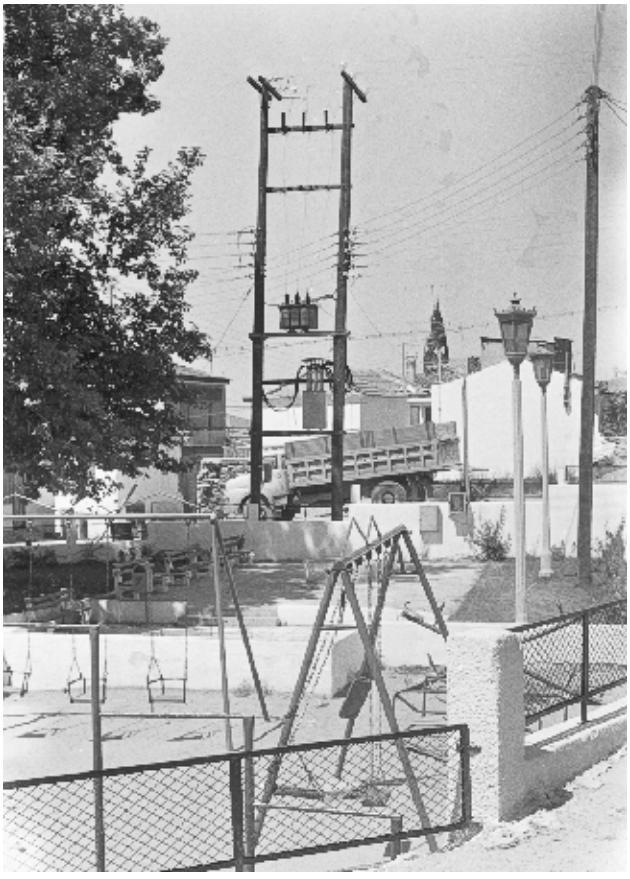


Fig.142. The new gardens at the plane tree.

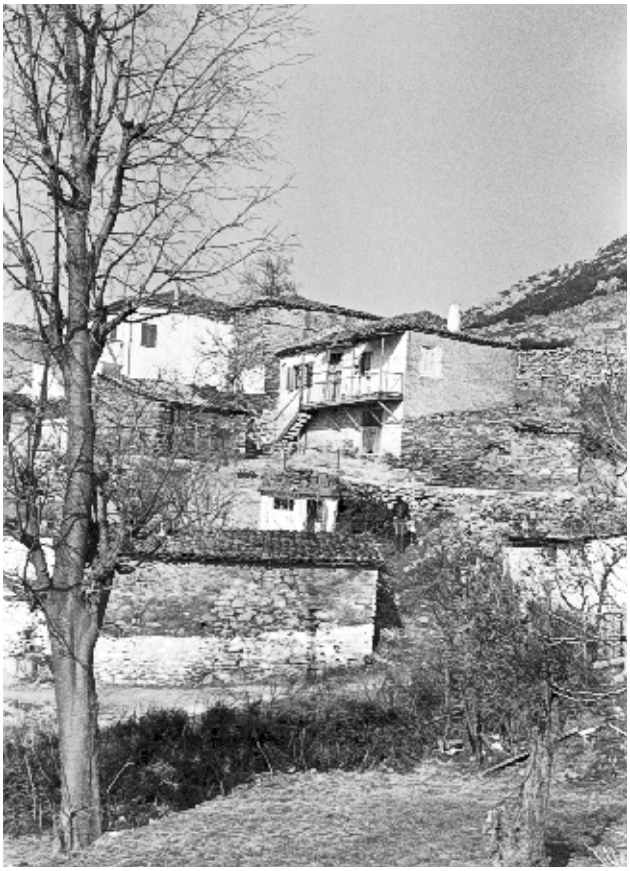


Fig.143. View towards KF5 seen from the southeast.

Fig.144. The same view a few years later.

houses for tractor parking, and the open space will soon be insufficient for parking places. This is probably some of the reasons why so many prefer to build outside the village on roads leading out towards the fields.

New gardens. Due to private donation the open area with the plane tree to the north of FB has lately been converted into monumental gardens with pavement of granite slabs, flower beds and a playground. Only the playground has become a real success, it is always full of playing children, but the gardens are empty, the flower beds not kept in order and the benches are only rarely occupied, not least because they have been turned away from the point of interest: the main street. These grounds would have functioned only in a town, where people have nowhere else to go to enjoy themselves in the open, at the same time as they are protected by the anonymity of bigger places. Here in Galatista it is mainly men that occupy benches, namely those of the village square, where things are going on, and women are still expected to remain at home or in the near neighbourhood (Fig. 142).

Street fittings and cover. Fittings like poles for electric wires are sometimes too dominant among modest preindustrial houses (cf. Fig. 142). Materials like concrete and cement mortar, the first used to cover old pavements, the second the fountain houses, are cheap and practical, but dull in comparison to those they substitute.

Legislation. Greek authorities have tried to prevent the destruction of traditional villages like Galatista by legislation only, since funds are limited in a developing country like Greece. Building regulations now demand that new buildings must have a hipped roof covered with Spanish tiles, joinery of wood and whitewashed facades (28). This has helped somehow, but mainly seen in birds-eye view, and it is not enough to secure homogeneity in a developing village.

The demolition of preindustrial houses has, as already mentioned, also been prohibited, but without much result as already shown; at best they are left to become ruins over time, so it is easier to get permission to demolish them. Lack of enlightenment, but also good examples of successful restoration and renovation, plus access to cheap long-term loans, goes some way to explaining this situation.

Overdimensioned new buildings. The gradual destruction of the homogeneity of the old village goes back to several errors, one of them being overdimensioning of new buildings, conforming as they do to the Greek building code, which does not make allowances for the

sensitive built-up environment of preindustrial houses (Fig. 143 & 144).

Another conspicuous error is the apartment house type with its slack form, where the balconies and the protruding flat roof are mere accessories, and not part of a closed form, in sharp contrast to the preindustrial house. Often these are left unfinished for years with their gaping supporting structure, for lack of cheap loans.

The height of the houses no longer conforms to the old Byzantine law prohibiting erection of houses that took away sun and view from neighbours, and this has made many old houses inferior both for dwelling and its value on the market (e.g. BF8e, GG7) . Apart from this, taller buildings that were formerly the privilege of the few (cf. Fig. 128), will change the character of the village, increasing the floor space ratio and impairing the feeling of airiness, light and orientation.

Building materials used in modern or modernized houses often do not fit into the traditional surroundings: marble slabs around entrance doors, windows or as slabs on exterior staircases. Terrazzo on stairs or balconies, aluminium used for doors and windows, or as a frame for shutters, iron doors with glass panes and plastic used as slats for shutters are disruptive elements too. Roofs covered with corrugated sheet metal or asbestos plates, and chimney pots of this last material, are also not suitable, the last may even be dangerous, due its content of asbestos fibres.

T.V. antennas and solar heating-elements on the roofs are marring elements, and the electrometers on the facades towards the streets, though not intrusive, are certainly no embellishment in the townscape.

Breach in the traditional plan. The traditional plan system is damaged severely in cases when new houses are built legally in the yard of an old house, which is then pulled down illegally, and a yard or garden takes its place (e.g. AP3e, EC5w etc.).

Other examples are two-storeyed extensions of the old house to the south, taking away morning and evening sun from the neighbouring houses (e.g. ME7w). Finally there are the many cases where the wall towards the street has been pulled down and replaced by an iron railing, thus forming a breach in the entirety, though this otherwise conforms to new ways of life that have no need of protective walls (e.g. CE2, CE3, KCle and now also AC4e).

Lack of funds, and interest, is the reason why the Byzantine tower has been left to decay, also the former school in AM5 with its fine door, unique in Galatista, the Kanavas house BA2, that is among the finest and most interesting, and the Matsoukis house BB2 that has special interest because of its archaic form. Only the two *archontika* ARl and EA2, have received loans to keep their roofs in repair, while other abandoned houses of less historical value have just become eerie scenes in a setting that is otherwise full of life.

These are in short the main components that have contributed to the steady disintegration of the uniform character of the preindustrial village, and if nothing is done about it, Galatista will soon have nothing positive to teach us anymore.

Chapter III

Future ?

Planning or chaos?

Ecological. The previous chapter dealt with the planless growth that has been predominant since the Second World War. The question now, is whether the design of the preindustrial village has solutions that are worthwhile adhering to, since it represents planning in the long term, while the planless growth of today relies solely on blind belief in unlimited technological progress, plenty and everlasting supply of energy from outside, and complete neglect of what might happen during a future crisis, when the village could be forced once more to be self-sufficient, at least for some time. Who can warrant that the situation will be the same in, say, a hundred or five hundred years? Can it be considered responsible to design solely for present needs without taking the welfare of coming generations into account?

A village like Galatista, which apparently has been inhabited for centuries, probably even millennia, was planned in such a manner that it could survive through crises without suffering lack of fundamental needs like water, food, clothes, housing, heating, and not least: sufficient energy to secure these requirements. Every advantage the site had to offer was utilized, but without exploitation, except perhaps for deforestation.

"It was an organism in environment and not an organism and environment, which recent ecological thinking stresses the need to consider" (1).

Morphological. The old village was morphologically homogeneous, and the transition from built-up environment to nature or cultivated land clearly marked. It formed a focus of interest in the open landscape, which was enriched by its presence, contrary to the amorphous sprawl of today.

Inside the village there was morphological unity, an integrity of form, which was conditioned by a number of factors given account of in the first chapter. Nonetheless, the open-endedness of plan and house type had resulted in a whole range of variations conditioned by the individual wishes of the owners. In this way monotonous repetition was avoided and the townscape much enriched, because the variations had been kept inside the limited resources of the preindustrial village, thus escaping visual chaos.

Psychological. Since the main streets follow the levels of the site, unlimited views are prevented, and the streets form mostly closed rooms. "This may offer a kind of psychological refuge and visual satisfaction in the country where views are wide-ranging and rarely closely directed" (2). However, the feeling of enclosure is sometimes lifted by some magnificent view down along a cross street towards the valley and the mountain range at the other side (3).

If anything was oversized, compared to the dwellings in general, that would be the churches, the house of the village administration, the Byzantine tower and the *archontika*, all of them buildings of special status in the small community. And yet the *archontika*, excepting the Byzantine, conformed also to the unity, which was only further enriched by better craftsmanship and materials. All these distinct buildings added at the same time to the complexity of the townscape, giving it added interest. "It seems clear that complexity is necessary for human well-being, that people need changing and complex environments" (4). But "for complexity there must be morphological unity, without this there is chaos and disorientation" (5).

The question is: is it worthwhile to preserve these inherited riches for the future? To me there can be no doubt that they represent "eternal values", not necessarily in every detail, but one should aim at preserving the most valuable and incorporate the new, where modern technology has better solutions to offer. In doing so one also follows tradition in Galatista, which, as already shown made use of new materials and new building methods whenever they were relevant.

"Tradition is not a fixed and final thing. If it is alive, and it is only worth anything if it is alive, it must be subject to growth and development. Any attempt to prevent the use of new materials and new types of design arising out of new building techniques based on those new materials, or arising merely out of changes and developments in human needs, is bound in the end to be futile: and if it were not it would mean the end of all architectural development whatsoever" (6).

Guide for conservation and further development.

In order to keep tradition alive, those merits that have come evolved through long-time experience should be preserved, also when extending the village, because they represent better economy, common sense, psychological satisfaction and collaboration, not conflict, in relation to the environment.

In future the village may be a mixture of a village and a garden town, since only a few inhabitants will be making a living from farming alone. Informality and naturalness ought to be the aim of all design. Everything that is artificial and pretentious ought to be avoided as something that does not belong in natural surroundings.

As the tradition has been discontinued, and with it the unwritten framework rules, it will be necessary to set up formal framework rules to secure morphological unity. On the other hand it must be seen to that open-endedness prevails so that the owners can also participate in the planning of the house, except if it is found preservable. Open-endedness secures variations at the same time as framework rules, limiting form and materials, will prevent visual chaos. This approach also maintains tradition, for as shown in the first chapter, the individual wishes of the owners were always respected (7). "The psychological satisfaction of asserting influence on one's surroundings is something that cannot be overlooked, especially among people whose work may otherwise be totally uncreative" (8).

Buildings of historical and/or architectural worth, and characteristic elements of the townscape or immediate surroundings should be preserved so there is not only continuity from past to future, but also some frame of reference when building new houses that must conform to the built-up environment in order to achieve morphological unity.

The old village plan. The caravan route should be preserved as the main traffic artery and asphalted. Traffic in two directions ought to be maintained to prevent excessive speed.

A network of pedestrian streets should be established, the old cobbling freed from its layer of concrete and restored to modern needs: sporadic traffic of tractors loaded with crops to the farm houses, absorption of rainwater or melting snow by the joints between the cobbles (9) and walking with modern footwear.

Parking grounds should be established, and here tractors are a serious problem since they cannot turn easily in the narrow streets, or be parked in the basement of old houses or in the yards without damaging the walls.

A new thoroughfare to the south of the *agora* will soon be of current interest and the street should be planned so that the demolition of architecturally and/or historically valuable houses is avoided.

The square with the plane tree to the north of FB should be adapted so it can be used for evening promenades as an alternative to the main road with its unfortunate medley of pedestrians and wheeled traffic.

The fountain houses should be freed from their layer of cement rendering, and marring outlet pipes should be hidden so the fountains revert to as they were with their donation slabs intact and legible.

All wiring should be laid down as cables in the streets. Street illumination should be simple and non-dazzling, cold discolouring neon light does not fit a preindustrial village.

One tall T.V. antenna, common to all, should be erected on the mountain above the village.

The garden area should be preserved, the retaining walls kept in repair and the irrigation system re-established so it is possible to grow vegetables again, even for the market.

Building on terraced land must be prohibited, because this land will be invaluable during crises so new ways of using it profitably should be explored.

Washing with detergents at the fountains should be prohibited in order not to pollute water for irrigation.

The last threshing-floors should be preserved and become part of some natural park. One of them, for instance Stini's (Fig. 37), could become an amphitheatre where performances could be given by touring professional theatre groups or used by amateur groups from the village. Some others could become organized picnic places with wooden benches and tables, taps and grills, shady wooden kiosks with benches and bins for disposal of litter (10). Beautiful large trees should also be preserved, and the brutal lopping of branches to make room for wires should not be permitted.

Preindustrial houses. The most valuable buildings (11) whether historically or architecturally, should be preserved and restored by the state when they have been abandoned and then taken over by the community for utilization (Fig. 145).

A regional ethnographic museum could be accommodated in the Byzantine tower with a cafeteria on top (12). It could be run cooperatively by the women of Galatista, like in Ambelakia, and food and sweets could be prepared beforehand at home and served there. Specialities from Galatista like unripe walnuts in syrup or steeped in brandy, could be sold for guests to take home. The distinctive character of the building, combined with the magnificent view, is bound to attract many customers, not least tourists.

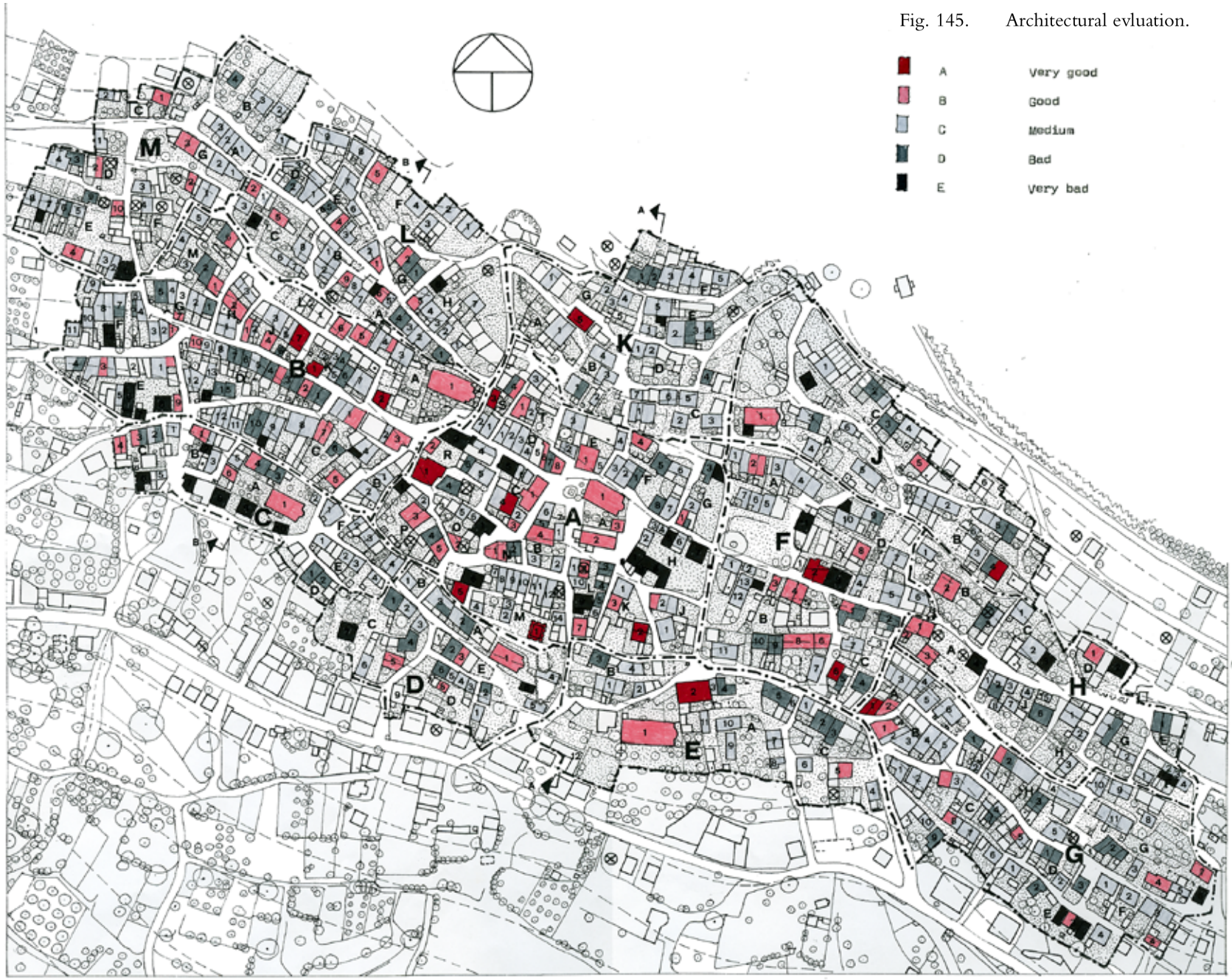


Fig. 145. Architectural evluation.

The only splash mill left, DA4, should be restored for its historical value and turned into a museum that might even function again during a crisis, this time producing electricity. The mill ponds could become small ornamental lakes and be part of a small park around St Paraskevi and the Byzantine tower.

The largest *archontiko,* EA2, could serve as an agricultural school making use of the old gardens for instruction and experiments. It could also become a community hall with many social and cultural activities.

The Byzantine *archontiko,* AR1, might serve as a day-home for the aged and a place where lonely old people without relatives to care for them, could get a meal and some medical care.

Empty houses marked A (Fig.145) (13) could become small intimate hotels like those that have been adapted from similar houses all over Greece by the Greek Tourist Organization (E.O.T.). Such hotels appeal to people who detest mass tourism, and who often travel in order to widen their intellectual horizon by learning from other people and countries. Such tourists are less apt to spoil the inherited culture and environment of a village. In summer the community could arrange for shuttle traffic to beaches in Chalkidiki for both tourists and inhabitants (14).

Inhabited houses marked A should be restored and modernized by a special state service, see below.

Houses marked B are either preindustrial prototypes or they are *pastas* houses that have had their whole facade rebuilt at one time, usually neoclassically. Such houses should keep their facade as it is, but the owner should be free to arrange the interior as he pleases observing only the framework rules below. To compensate for his limited freedom cheap loans should be made available.

Houses marked C represent the bulk of the houses. They neither add to nor detract from the built-up environment. If the house is a derivation of the *pastas* house, it usually has a composite facade and rebuilding may provide some improvement.

Houses marked D are either modern houses that do not fit the environment well, or some derivation of the *pastas* house that has been damaged by modern rebuilding.

Houses marked E are misfits in the village. They are modern concrete structures either overdimensioned or with flat roofs, or both, or they are ugly extensions of the *pastas* house. Here rebuilding could hardly be anything but a blessing.

The framework rules below should be observed in any case when a house is being built or rebuilt, but when the nucleus of the house is a *pastas* house, special framework rules should apply as well.

Framework rules.

The pastas house. The supporting structure of the *pastas* house should be preserved since it has proved resistant even during very strong earthquakes, and it is also more economic, since rebuilding is more common than demolishing.

Twisted timber could be replaced by new and straight timber, or it may be covered up with planed boards like in the Kanavas house.

Rubble walls could be stripped of render and whitewash, and the clay joints filled with lime mortar. In this way a genuine contrast between rubble work and light outer walls can be created.

Windows in rubble work should be relatively small and if possible take up the span between two tie layers.

The roof could be entirely rebuilt with timber and function as ceiling at the same time, to increase the height of the room. This was, as shown in the first chapter, the original solution.

Reinforced concrete should only be used in such cases where only the rubble work of the basement is intact. The rest of the house can then be built on top of a reinforced concrete plate cast *in situ* on the rubble walls. This has already been done many times (cf. p. 126).

New houses. When new houses are built they should conform to the Byzantine law that secures sunshine and view for all. Even outbuildings could be demolished and a new house erected on the plot, if this rule is observed.

New houses must be built from reinforced concrete, as the Greek building act does not permit anything else due to the high seismicity of the country. However, dimensions should conform to the built environment of the old village, and in many cases exemption from legislation will have to be granted in order to obtain it. Oversized and monotonous facades should be avoided. They can be varied either with bays, balconies or built-in verandahs, but always in moderation in order to avoid overloading. The general impression should be that of composite closed forms.

All houses. All houses, new or rebuilt, should have the same height of facades as the rest of the houses if they form a row, and they should by no means be more than two-storeyed towards the north.

Roofs should have the same gradient as all other roofs, ca. 18°, and be hipped if the house is detached or it is the first or last house in a row. Roof structure should be of timber.

Extensions towards the south cannot be permitted when the house is part of a row or the extension takes away light from neighbouring houses.

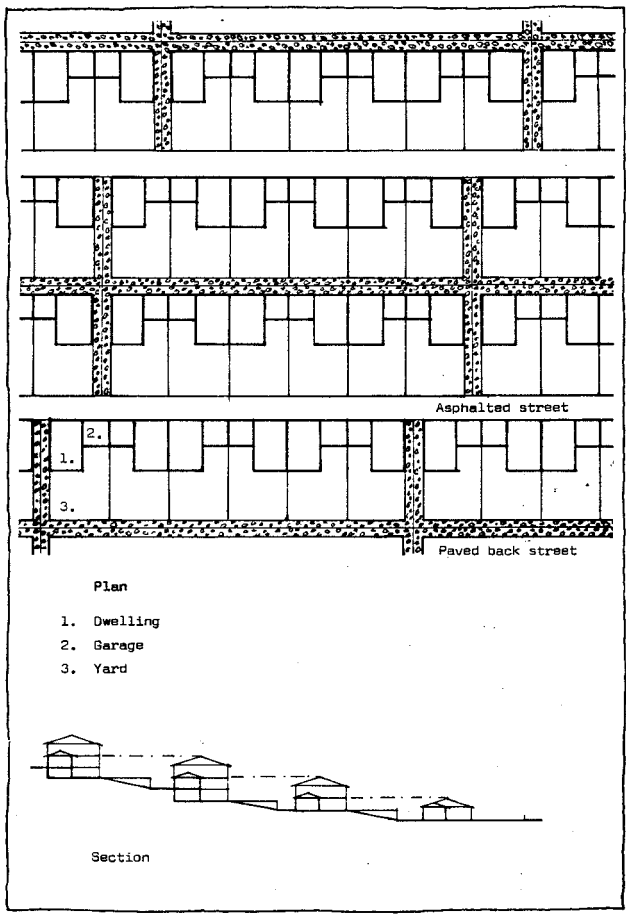


Fig.146. Planning diagram for village extension.

Built-in verandahs (*chayatí*) may be designed so today that they can be closed with top-hinged windows and a kitchen / living-room can be accommodated there.

On building or rebuilding the use of bays should be permitted presupposing that they project sufficiently high above the narrow street, that certain dimensions are observed, and windows turn towards the street or one's own yard.

Tile-roofed outbuildings may be built in the yard if they have shed roofs with gradient towards the yard and the height towards the neighbour does not exceed 2.5 m.

Walls around the yard should not be demolished, but the gate may be changed for one of wrought iron, so the psychological need of a view to the street can be satisfied. An opening in the wall with shutters or grill may also have the same effect without damaging the characteristic closed space of the street.

Materials should be simple and natural: wood, bricks, Spanish tiles, granite, slate, wrought iron, whitewash. Such materials as marble, terrazzo, aluminium, corrugated iron or asbestos sheets, and chimney pots with asbestos fibres are not appropriate in a preindustrial village.

Solar water heaters should not be placed on the roof but due to the favourable site on the slope, they could be set up as top-hinged shutters that can be adjusted according to the altitude of the sun. The hot water tank could be hidden above a ceiling. This solution presupposes that the Byzantine law remains in force.

Chimneys should be preserved for times when they may be needed again, just like modern houses should have at least one for the same reason.

Flush toilets should be avoided and composting toilets used instead. In case of electricity interruption spring water is really too precious to end up in flush toilets. The compost itself can be used as highly valuable biological fertilizer (15).

Electrometers should be hidden in small wooden lockers that may serve as letter boxes too.

The obligation of maintenance should be requested through legislation as in Denmark, and if a house is left to decay it should be made legally possible to put it to forced sale to prevent gradual undermining of the old village and to allow neighbours a chance to extend their house into an empty neighbouring row house.

If it is not possible to contact the owner, who may be overseas for years, the community should be able to obtain the legal right to restore and modernize decaying houses and to rent them out. The owner could be paid the rent of the value of his property before restoration and the money deposited in his name in a bank account. If he wishes he has the right to take over his property but paying the difference in value to the community, if necessary by instalments.

Each county should provide a special restoration service for preindustrial houses with architects and craftsmen who have received specialized training.

Extension of the village. When planning extension of the village, experience from the preindustrial village should be taken into account when relevant. The new part should first of all be designed for modern farm houses and not houses for holidaymakers. Streets must be wider than in the old village, so tractors may turn and find parking together with other mechanic equipment near the farmer's house. In this way the new area may be more attractive for farmers, so the old village gradually becomes residential without tractor traffic.

New streets should be laid out in level, below spring 2 and above the main road to Salonica and with asphalted streets for wheeled traffic and paved back streets for pedestrians (Fig. 146). Some wider areas arising naturally from irregularities of the site could be made into pleasant small meeting places for neighbours and fitted out with benches and shady trees.

Cross streets should be for pedestrians alone, if possible. They should run at right angles to the levels, avoid being through-going, but form T-crosses with streets on the level in order to check the rush of the rainwater (16). The distance between the cross streets is determined by the gradient required by the streets in level to send the rainwater down the cross streets (17).

In every neighbourhood an area of some size should be kept free to form a village square when necessary in future, but left as a playground in the interim. A fountain should be erected from the beginning so it can function during electricity interruption. Surplus water together with rainwater should be directed into ravines or be guided into the irrigation system in summer. Trees should be planted that fit the ecosystem of the site, so they do not need too much special care. A site for one-storeyed shops should be considered.

Houses could be linked double houses with garages for tractors and cars in between. If a garage is not needed it may become part of the dwelling or a small shop. The gradient of the slope determines the height of the basement and the Byzantine law the number of floors. The houses should be built directly from a retaining wall along the street and surplus earth used for terracing the yard towards the south.

They should conform to the framework rules set up for new houses and all houses in the old village.

Epilogue. It is only too easy to set up framework rules, but are they going to be observed? As the present situation is today it is rather dubious, unless the owner is guided by self-interest. To that end it is very important that cheap long-term loans are made available to owners of A or B houses. Unfortunately Greece is going through an economic crisis at the moment and priority is given to many things other than preservation.

Then there are the rigid property rights in a country where up to now property was the only security against destitution during a crisis. In neighbouring communist countries this is no longer the case, and for that it has been possible to preserve whole villages and towns (18), but to some extent they have become inhabited museums; the dynamic adjustment to requirements of new times seems lacking.

What can be done? First of all, love of Greek cultural inheritance should be engrafted already at school and through T.V., which is in fact the case today, but in a society that is still very hierarchic, the responsibility of the village "upper class" cannot be sufficiently stressed. This thesis has dealt extensively with how their houses have served as prototypes in the past, and the same happens today, but modern prototypes are bad, imitating the houses of upstarts living in a cultural vacuum in the big cities. Only very recently has some improvement set in which is very promising for the future. This is evident in the houses that, as already mentioned, have their prototypes among the old Macedonian *archontika*. If this model was further worked upon it might in time become an independent local style that would suit a village like Galatista.

Apart from these considerations, where is the Greek equivalent to "The Society for Promotion of Better Building Practice", founded by Danish architects in the interwar period and providing gratis advice to anyone who wanted to improve the appearance of his house? Such a society would be of invaluable service to Greece in a transitional period.

Appendix

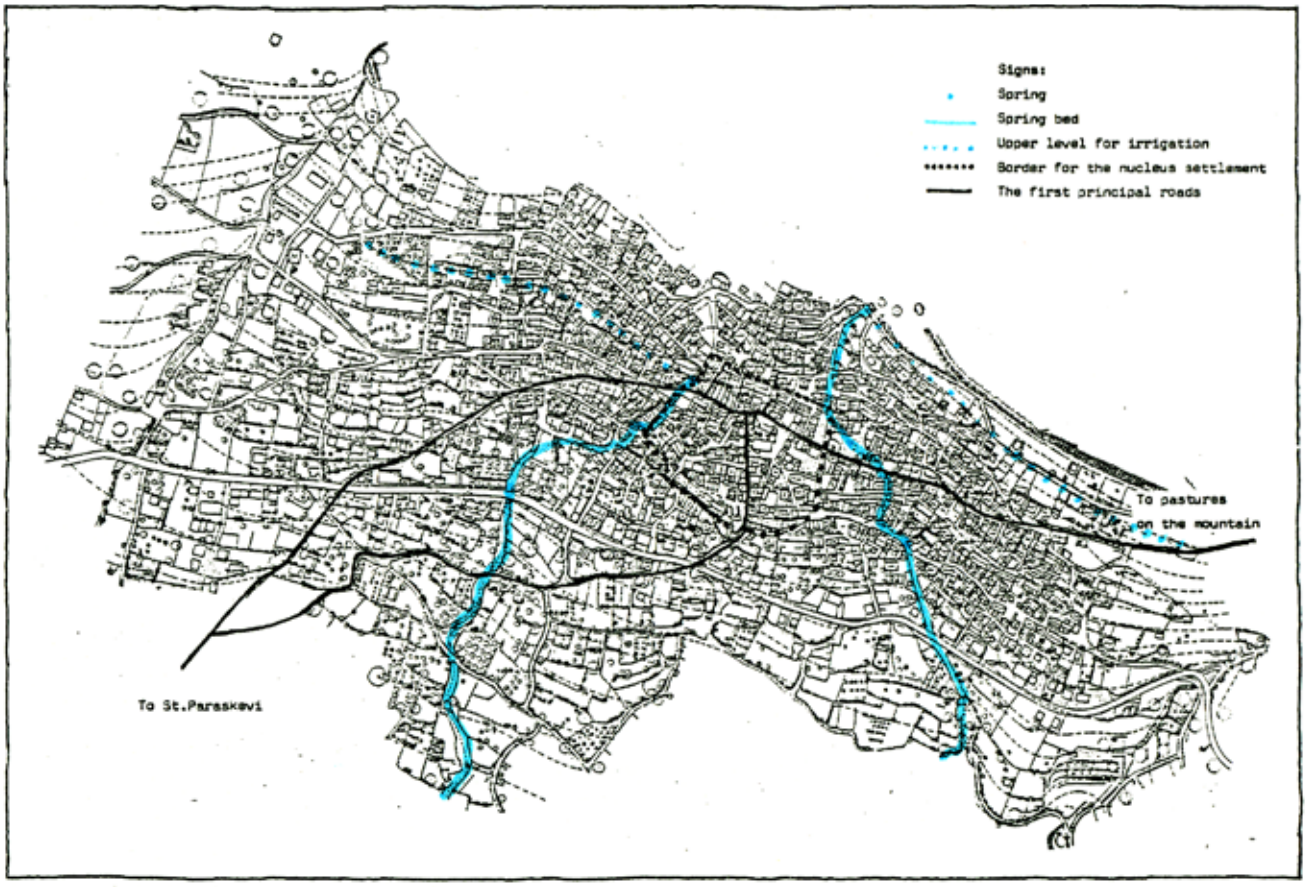


Fig.147. The nucleus settlement and the first roads.

Hypothetic development of the village

In Galatista there is still a living tradition that was founded by people coming from St Paraskevi down in the valley (cf. Fig. 3). The two legends record too that there was originally forest at the site of Galatista, which is quite possible.

When looking at the map (Fig. 19), there can be little doubt that the relatively level area at the *agora* was the nucleus settlement, situated between two rushing springs that had their source at 1 and 2, just as today.

When further studying the streets leading out from the central square (Fig. 147), it appears that there are only two direct roads: one going straight south, the other following the contour lines in a west-east direction, but it assumes only a precise west-east direction at the central square, which makes one suspect that it could be intentional and complying with the claims of spiritual planning in the foundation of the village (cf. p. 37). If there were ramparts around the settlement, there would be gates where these streets cut through them, thus forming the second templum of the sky (cf. p. 37).

The spiritual centre of the new settlement was laid down at the inauguration and as will be discussed shortly, I have reason to believe that it was at the point where the altar is in the sanctuary of the patron saint, St Demetrius, or more precisely, in the centre of the apsis.

Where did the two streets lead? The west-east street was probably already there, maybe only as a path leading from St Paraskevi via the springs at Galatista to pastures on the mountain plateau, for till recently it was common practice to let cattle graze there in summer. The first settlement at Galatista might indeed have been a shepherd camp (*stani*). The south street joined the other west-east street further down in the valley, thus confirming the strong ties between St Paraskevi and the new settlement.

If the first settlement was walled, it would have been necessary to pipe water from spring 2 down to the square where any surplus water would find outlet along the south street, till it finally joined the spring coming from 1, which was actually the course that the surplus water took until a few years ago.

At some time a new road made its way down to other villages towards the sea and the salt works at Karabournou (Fig. 148) (cf. Fig. 2). Rather than taking the direct route from Galatista, it started from the old road to St Paraskevi

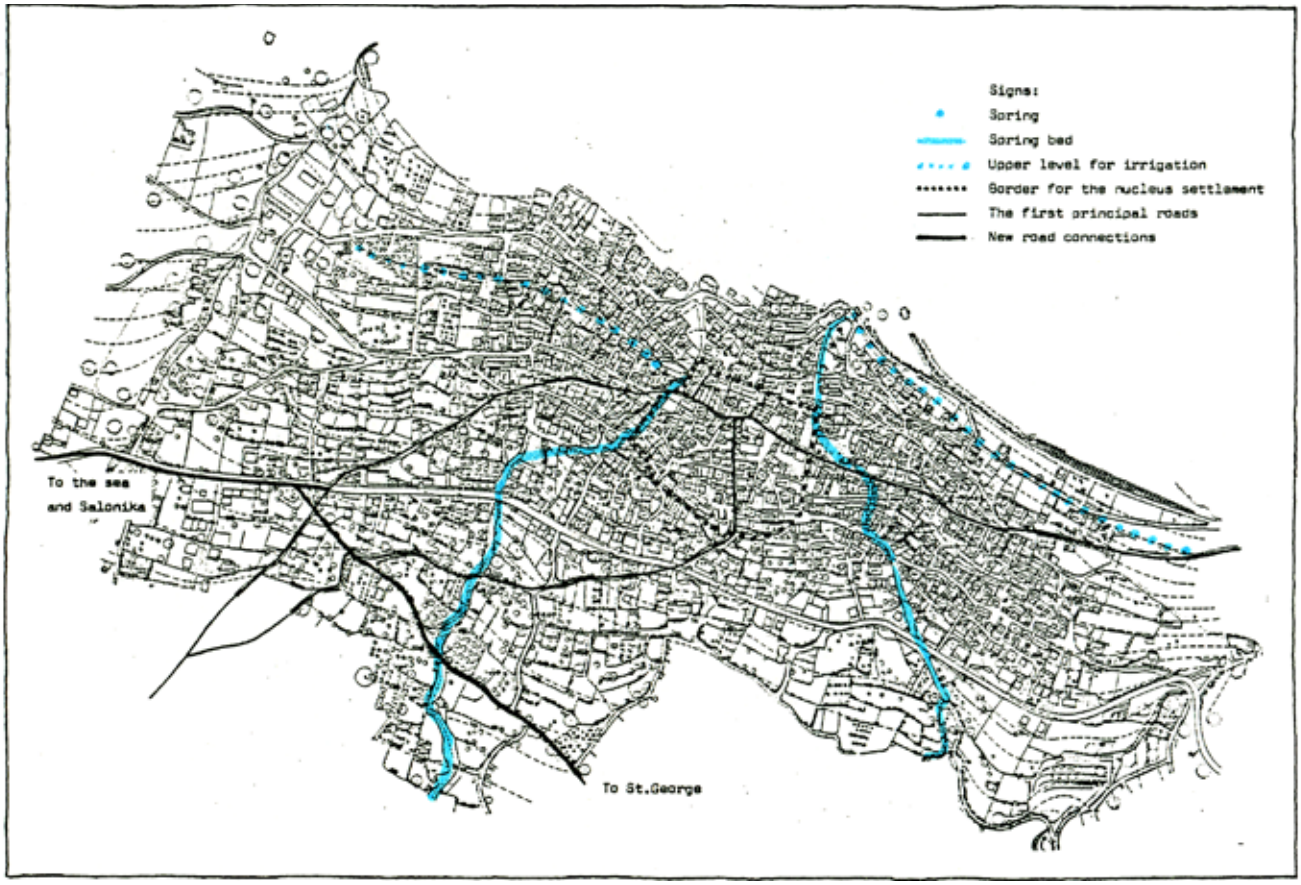


Fig.148. New road connections.

which may indicate that there were now terraced fields and gardens to the south west of Galatista, and this land was extremely valuable since it could be irrigated from spring 1. So it was out of the question to cut a new, more direct, route through this area.

At the junction of these two roads another road started down towards St George to the east of Galatista (Fig. 3); this takes an indirect route, maybe because the area to the south and south east of Galatista was also already terraced land, irrigated from spring 2. So the new road had to follow retaining walls, just as today, though still it was well connected to the new main road from Galatista.

When Galatista became a synoecism it was joined by five villages that each erected a sanctuary, dedicated to their former patron saints: St Paraskevi, St George, St John the Baptist, Our Lady (The Assumption) and St Nicholas. To me there can be no doubt that the first two came from the villages of the same name in the valley, and since these villages were apparently never re-built, the festivals of these saints are still celebrated down there by the descendants that were absorbed into Galatista a long ago. St John is the patron saint of Prodromos, while the main church in Vavdos is a large very old church dedicated to Our Lady (The Assumption). St Nicholas is the patron saint of Galarinos which once belonged to the community of Galatista (1).

As already pointed out, it was in times of great danger that villages were joined together in synoecisms, and the situation can really best be compared to colonizing in a strange country in antiquity, and even worse at that. If one studies the map (Fig. 149), it can be seen that the three churches St Paraskevi, St George and St John the Baptist have more favourable positions in relation to the nucleus settlement, and I believe that this is because the synoecism was erected in two stages and these three churches represent the first stage.

How could the enterprise have been undertaken with least possible friction so as not to weaken the unity against the common enemy? First of all it seems that sites were chosen on wasteland too steep for terracing and above terraced land, so as not to intrude on valuable land already belonging to inhabitants in the nucleus village.

Common to all the new neighbourhoods is that they are close to streets leading back to their fields, and that streets were laid out in level (2) and directed towards the springs or streets leading to them. Only St Paraskevi had water piped down to the fountain below the church.

St Paraskevi seems to have been built on the site where there once might have been fortifications, which

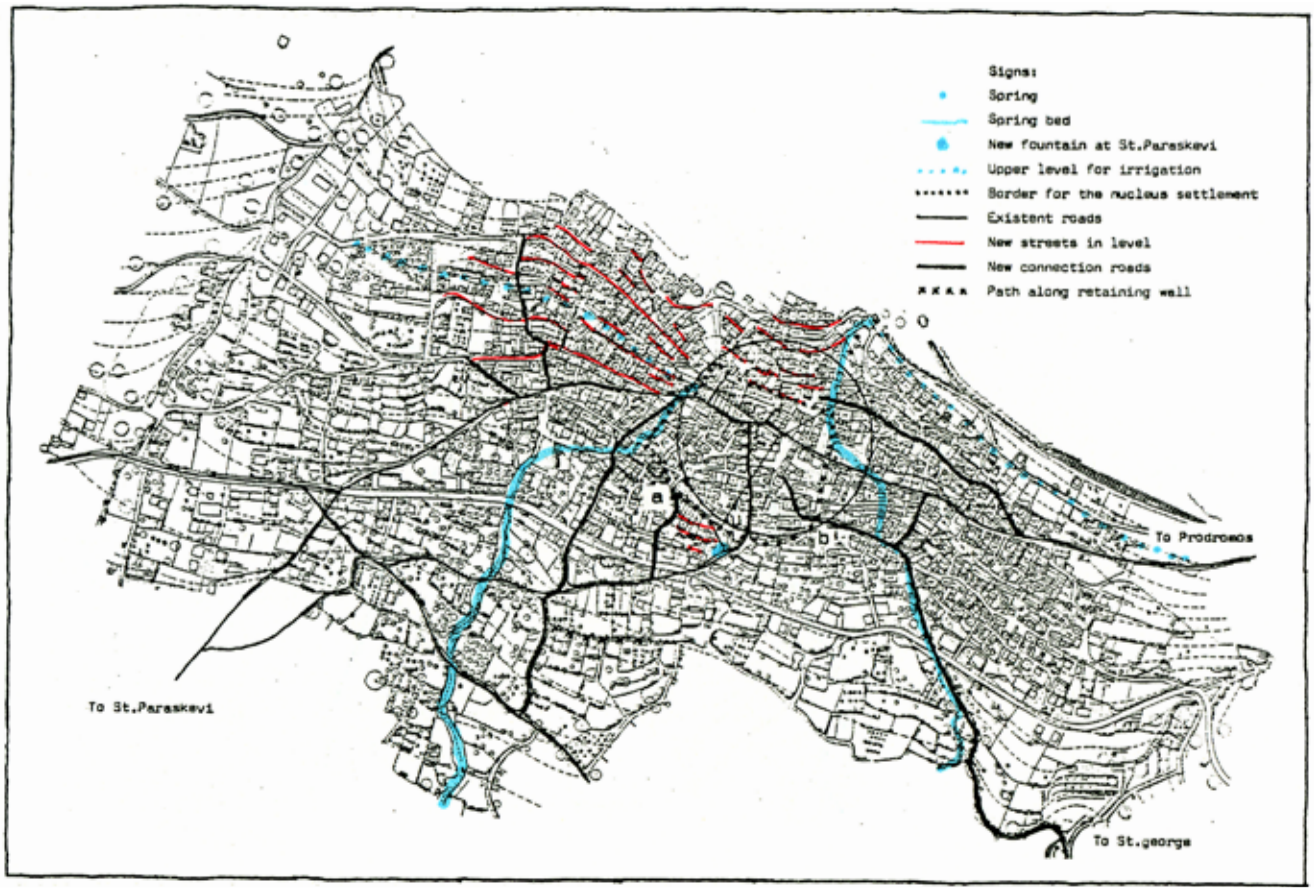


Fig.149. The first stage of the synoecism.

shows that they must have been demolished by that time and had become an empty public area. After the fortifications had lost importance, new roads would have led out from the centre, like for instance the roads at a and b (Fig. 149). This would have facilitated communication but again with full regard to irrigational land. This may be some decisive reason why many streets are level: they follow the original paths along the old retaining walls that were laid out in level. A fine example of such an old path, following a retaining wall with an irrigation canal at its feet, is the path marked x x x x x.

But there was still another major problem: how to accommodate the new churches and their cemeteries in such a way that no village felt that their patron saint had been wronged? Surely the Orthodox Church must have played a powerful role here and its opinion was something that was respected. It may be due to this that we have a peculiar phenomenon: if you construct a circle with its centre in the spiritual centre, defined by the centre of St Demetrius's apsis, and with a radius of about 110 m, you get a circle going through the centres of the apsides of the three new churches, only with a small divergence (3).

Furthermore, if you take bearings from the spiritual centre towards the chapels of St Paraskevi and St George in the valley, the apsis centres of the corresponding churches in Galatista fall pretty close to the bearing lines. Still this is not the case with St John the Baptist that misses the mark by 36°, but this might be due to lack of view to Prodromos. If the Orthodox Church played a part, distance and direction would determine the new site and perhaps in so doing they followed rules of ancient spiritual planning. In any case, if one considers the distance 110 m, it can be expressed in another way: 5 x 12 *orgyia* (4). Twelve was a sacred number in antiquity, because it represented the 12 gods and later came to represent the 12 apostles. Could it be that *Decumanus* of the Romans actually had its root in the Greek word *dodekamena*, as suggested by the ancient writer Hyginus Gromaticus (5)? And were sacred measures the products of 12 *orgyia*?

It is not for me to judge whether there actually was any such thing as spiritual planning at work and whether it conformed to rules suggested by me; the map is perhaps too inaccurate for that, but comparative material from other Greek villages is lacking as well for lack of maps. Still the question remains open.

The second stage occurred when the two churches St Nicholas and Our Lady were joined to Galatista (Fig. 150). This time the new neighbourhoods were also close

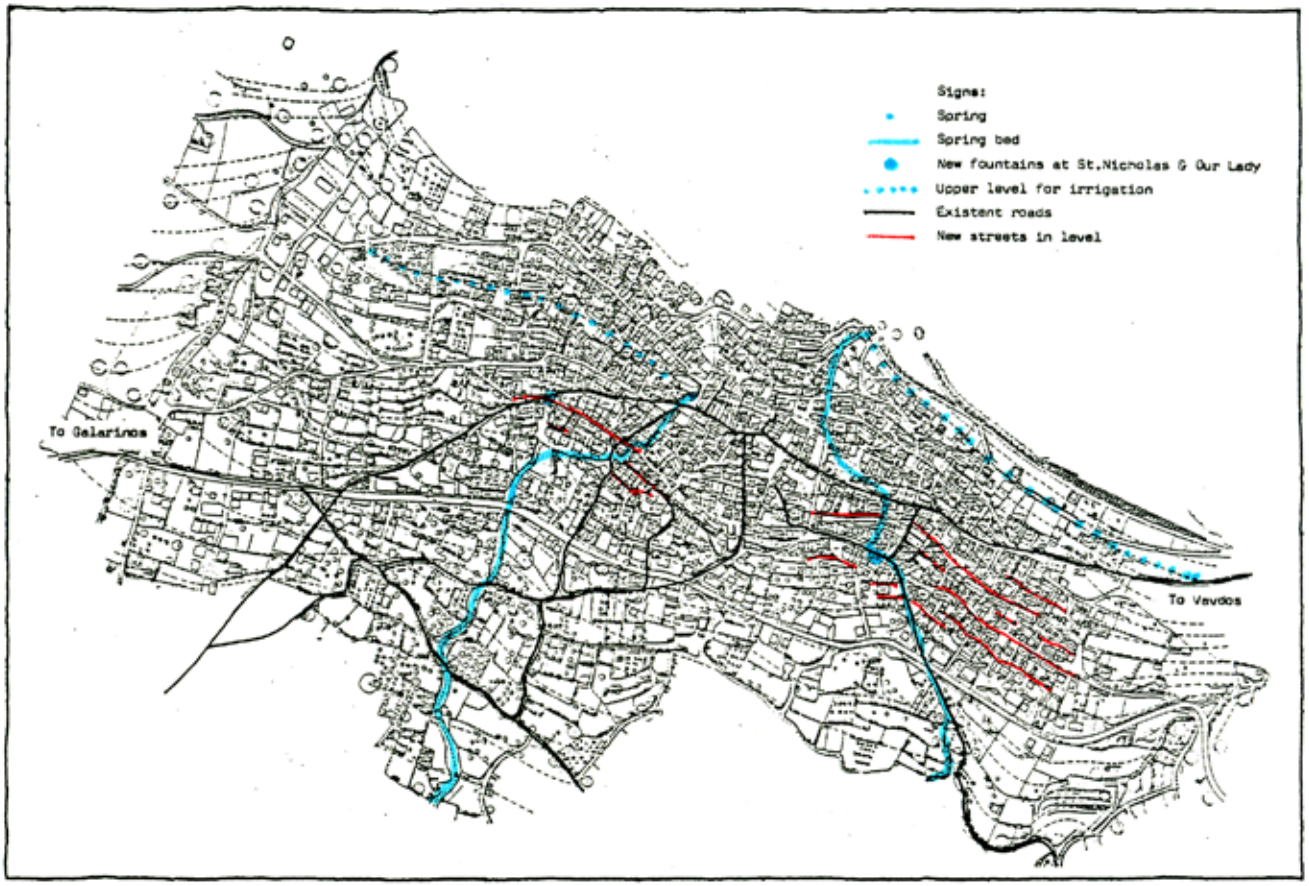


Fig.150. The second stage of the synoecism.

to roads leading back to their fields at Vavdos and Galarinos. New fountains were erected, maybe in later times, and new streets laid out in level as usual (6), but this time it seems to have been partly on terraced land which must have caused a great deal of disagreement, if there were no legislation and no supreme power to obey.

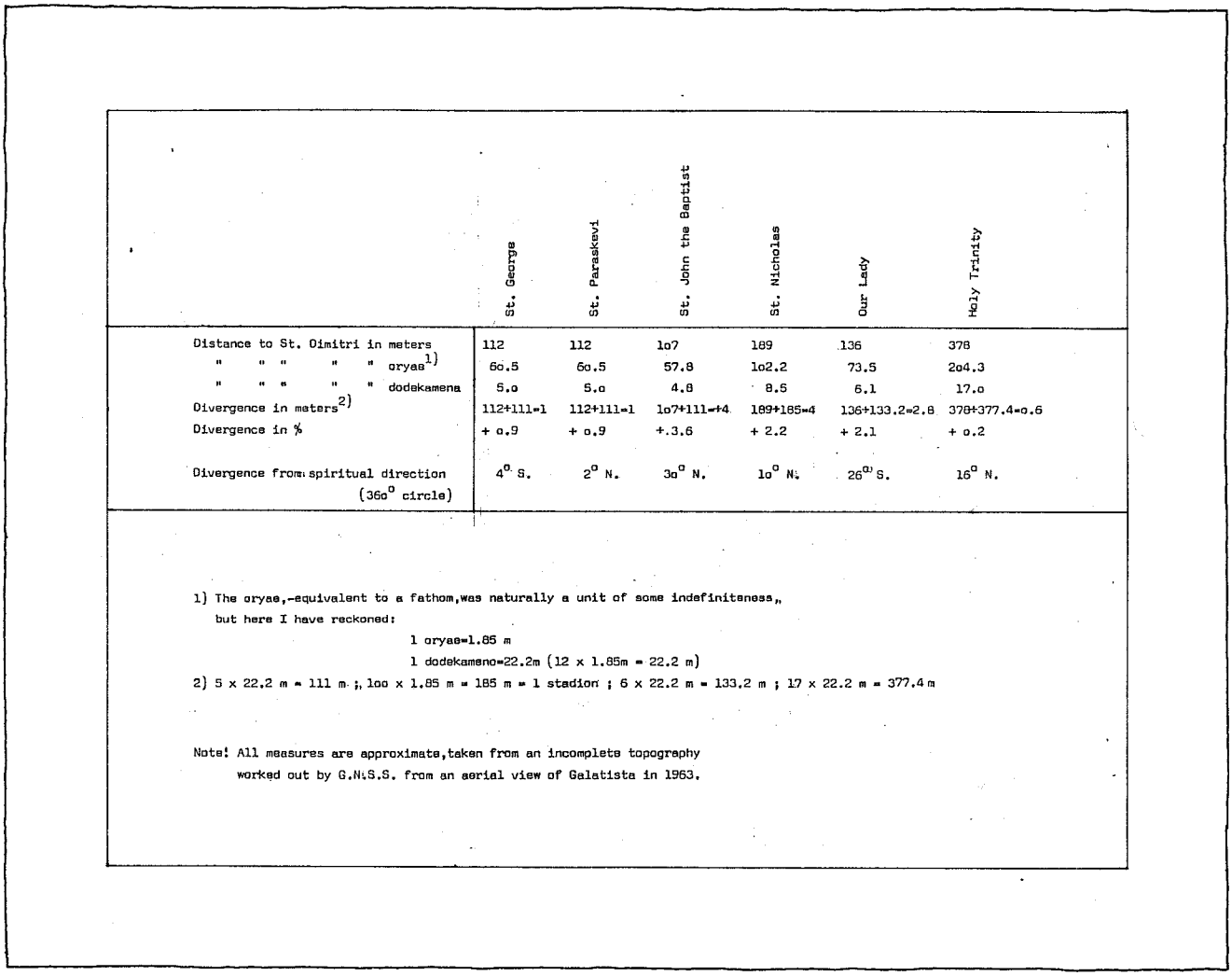
Other chapels like Holy Trinity and St Nectarius are situated on terraced land to the south of Galatista (Fig. 3) (Map l). Holy Trinity may represent a village that was once situated down in the valley at the chapel of the same name, but I cannot explain the presence of St Nectarius. These chapels also seem to have had cemeteries and yet they were never incorporated into any synoecism with Galatista. Nonetheless I have included them in the diagram of distance and direction at the end of this article.

When was the synoecism erected? Although it would be up to archaeologists to give the final answer, I dare say that the first stage took place in the 10th century at the same time as the defence tower was built. Apart from this, the two fountains at St George and St Paraskevi both have Byzantine rounded arches - the first has the date 1914 engraved, but I believe that is only the date when it was covered with marble slabs.

The second stage took place in the 14th century, when the first defence tower was restored (cf. p. 22) and the fountain at the Assumption has the typical ogee arch of Ottoman architecture (Fig. 31), so it must have been built after the Turkish occupation. The churches would have given a clue as to the age of the synoecism, but unfortunately they all seem to be not much older than 150 years, and old people in Galatista believe that they were rebuilt after having been burnt down in 1821 (7) (cf. p. 23).

The synoecism continued to be comprised of independent parishes until recent times, and it was not before 1907 that the cemeteries at the churches were abolished and a new cemetery, shared by all, was erected to the south of Galatista, which had finally become united into one single village. Today only Our Lady and St George are used regularly because they are the largest.

The original villages of the synoecism: Prodromos, Vavdos and Galarinos seem to have been reinhabited for centuries, only St George and St Paraskevi, that were at a more convenient distance to Galatista, have apparently never been rebuilt, but one can still see the foundations of houses there.



	St. George	St. Paraskevi	St. John the Baptist	St. Nicholas	Our Lady	Holy Trinity
Distance to St. Dimitri in meters	112	112	107	189	136	378
" " " " " oryae[1]	60.5	60.5	57.8	102.2	73.5	204.3
" " " " " dodekameno	5.0	5.0	4.8	8.5	6.1	17.0
Divergence in meters[2]	112+111=1	112+111=1	107+111=+4	189+185=4	136+133.2=2.8	378+377.4=0.6
Divergence in %	+ 0.9	+ 0.9	+.3.6	+ 2.2	+ 2.1	+ 0.2
Divergence from spiritual direction (360° circle)	4° S.	2° N.	3a° N.	1o° N.	26° S.	16° N.

1) The oryae,-equivalent to a fathom,was naturally a unit of some indefinitaness,,
but here I have reckoned:

1 oryae=1.85 m

1 dodekameno=22.2m (12 x 1.85m = 22.2 m)

2) 5 x 22.2 m = 111 m ;, 1oo x 1.85 m = 185 m = 1 stadion ; 6 x 22.2 m = 133.2 m ; 17 x 22.2 m = 377.4 m

Note: All measures are approximate,taken from an incomplete topography
worked out by G.N.S.S. from an aerial view of Galatista in 1963.

Fig.151. Diagram of distance and direction to St Demetrius.

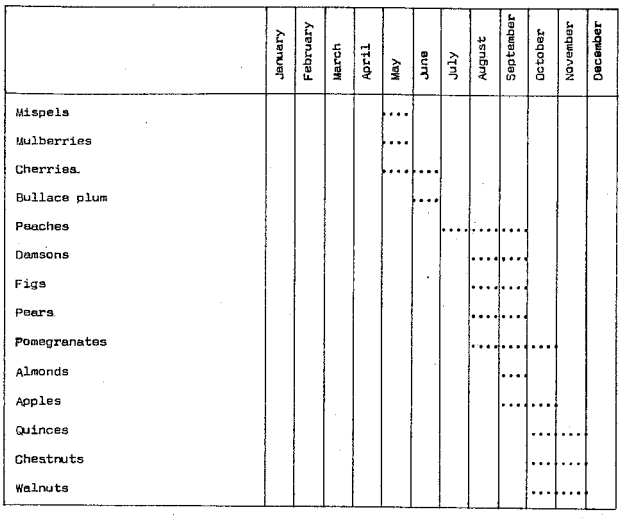


Fig.152. Diagram of fruit in season.

Chicory	(Chicorium officinale)
Dandelion	(Taraxacum officinale)
Dock	(Rhumex)
Hedge mustard	(Sisimbrium officinale)
Nettle	(Urtica dioica)
Poppy	(Papaver rhoes)
Rocket	(Eruca sativa)
Saw thistle	(Sonchus oleraceus)

Fig.154. Wild greens collected for salad.

Camomille	(Matricaria)	Colds	
Dog's tooth grass	(Cynodon dactylon)	Diuretic	
Fennel	(Pimpinella anisum)	Colics	Aroma for ouzo
Holly hock	(Flores malvae arborreae)	Diarrhoea Vomitting	
Laurel	(Laurus nobilis)		spice
Lime tree flowers	(Tilla grandifolia)	Coughing	
Maize, the pistils	(Zea mays)	Diuretic	
Majoram	(Oreganum majorana)	Stomach upsets	
Oregano	(Oreganum heracleoticum)	Diarrhoea	spice
Peppermint	(Mentha piperita)	Stomach upsets	
Rock rose	(Cistus)	Diarrhoea Vomitting	
St.John's Wort	(Hyperikum perforatum)	Sedative	

Fig.155. Herbs collected for tisanes and spices.

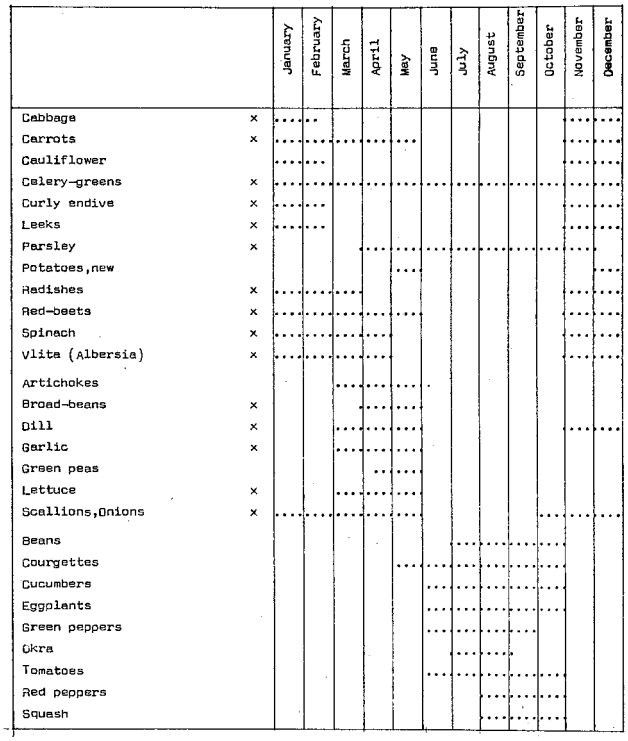


Fig.153. Diagram of vegetables in season.

Food group	Greece	U.S.A.
Cereals	61	25
Potatoes	2	3
Sugar, honey	4	15
Pulses, nuts	6	3
Vegetables, fruit	5	6
Meat, fish, eggs	3	19
Dairy products	4	14
Oil, fats	15	15
Calories / day	2477	3129

Fig.156. Caloric intake in Greece and U.S.A. 1948.

Notes

The geographic setting

(1) Cary 1949, 48.
(2) Encyclopaedia "Domi", 1979, V.14, 173.
(3) Huxley & Polunin 1965, 9.
(4) Huxley & Polunin 1965, 56.
(5) Encyclopaedia "Domi", 1979, V.5, 294.
(6) Wycherley 1967, 41 ff. and 188.
(7) Encyclopaedia "Domi", 1979, V.5, 294.
(8) Mumford 1966, 115; Wycherley1967, 200.
(9) Cary 1949, 32 ff.
(10) Kanatas: personal statement.
(11) Mumford 1966, 155.
(12) G.N.S.S. 1951.

Historical evidence

(1) Papagellos 1978, 68.
(2) Shown on a map in the Archaeological Museum, Salonica.
(3) Ryckwert 1976, 151.
(4) A similar legend is told of how the Turks got into Kastoria. (Moutsopoulos 1971, 216).
(5) Ryckwert 1976, 152 ff.
(6) Hammond 1972, 190.
(7) Hammond 1972, 190.
(8) Hammond 1972, 153.
(9) Hammond & Griffith 1979, 129.
(10) Hammond & Griffith 1979, 123.
(11) Wycherley 1967, 188.
(12) Hammond & Griffith 1979, 173, 178, 184, 246, 367.
(13) Hammond & Griffith 1979, 321 ff.
(14) Hammond & Griffith 1979, 411.
(15) Hammond & Griffith 1979, 648.
(16) Hammond & Griffith 1979, 163.
(17) Hammond & Griffith 1979, 649.
(18) Hammond & Griffith 1979, 154.
(19) Zagli 1956, 26.
(20) Hammond 1972, 187.
(21) Papagellos 1978, 63 ff.
(22) Papagellos 1978, 72 n.
(23) Moutsopoulos, Prof. N.: personal statement 1981.
(24) Vacalopoulos 1973, 545.
(25) Sherrard 1971 59, 62; Bibikou 1979, 196.
(26) Bibikou 1979, 208.
(27) Sanders 1962, 63 ff.
(28) Bibikou 1979, 208.
(29) Vacalopoulos 1973, 40.
(30) Sanders 1962, 64 ff.
(31) A new law in 1987 put an end to this situation but the monastery, St Anastasia, belongs to the Patriarchate in Istanbul and is therefore not Greek property!
(32) Moutsopoulos 1971, 218; Vacalopoulos 1973, 304.
(33) Moutsopoulos 1971, 321.
(34) Vacalopoulos 1973, 244.
(35) Vacalopoulos 1973, 40.
(36) Mine = *maden* in Turkish.
(37) Bibikou 1979, 214, self-governance existed in a few other parts of Greece that were privileged by the Turks.
(38) Vacalopoulos 1973, 550.
(39) Vacalopoulos 1973, 554.
(40) Vacalopoulos 1973, 610; Samaras, an old shoe maker in Galatista, told me that their "grandfathers" had told them how the surviving villagers later had returned to their empty village together with refugees from other parts of Greece. No house had been left intact and people had to live from boiled wild greens and obtained salt by breaking up the oven floors in the ovens, as their ancestors knew that an inch thick layer of salt (and sand) under it would improve the baking of the bread.
(41) Vacalopoulos 1973, 555.
(42) I doubt the correctness of the number.
(43) Bibikou 1979, 198.
(44) Friedl 1962, 95 ff.
(45) Sanders 1962, 65.
(46) Sanders 1962, 65.
(47) Sanders 1962, 66 ff.
(48) Sanders 1962, 71.
(49) Friedl 1962, 52.

Traditional agricultural economy

(1) Walcot 1970, 9.
(2) Du Boulay 1974, 161; Philippides 1973, 53 ff.

(3) Walcot 1970, 38.
(4) Homer: Odyssey 18, 365-380.
(5) Walcot 1970, 18.
(6) Sanders 1962, 62.
(7) Friedl 1962, 28.
(8) Friedl 1962, 93 ff.
(9) Sanders 1962, 223.
(10) Sanders 1962, 60.
(11) Sanders 1962, 197 ff.
(12) G.N.S.S. 1975.
(13) Samaras: personal statement.
(14) Cary 1949, 17.
(15) Sanders 1962, 68.
(16) Cary 1949, 16.
(17) Nickles 1972, 8 ff.
(18) Nickles 1972, 43 ff.
(19) This way of cooking, though a variant, is known internationally as "Legumes a la Grecque".
(20) It is interesting in this connection that the black colour, which is predominant, was extracted by boiling the refuse from the carpenter's work shop (Stella Panela: personal statement). The bark of the Kermes oak, which was used as building timber, yields a fast black dye, while a scale insect living on its leaves yields a wonderful and much coveted red dye (Huxley & Polunin 1965, 56).

Social structure

(l) Most of the following is founded on personal observation having stayed more than half a year in the village plus many more single days, but also from being married into a Greek rural patriarchal family. Research by American and British cultural anthropologists of similar Greek patriarchal communities on mainland Greece has been an invaluable source of confirmation and interpretation. The penetrating work on the modern Greek character and its historic presupposition by the Greek historian A. Vacalopoulos: *Ο χαρακτήρας των ελλήνων* (*The character of the Greeks*) has been most valuable confirmation of such apparently intangible subject as the character of a people, and he maintains that today there is such thing as "the Greek character" with traits common to all living in this country (Vacalopoulos 1983, 21, 48).
(2) Du Boulay 1974, 142 ff; Campbell 1964, 190 ff.
(3) Du Boulay 1974, 254.
(4) Campbell 1964, 37, 174.
(5) Du Boulay 1974, 20; Friedl 1962, 60 ff.
(6) Höeg 1925, 52 n.
(7) Walcot 1970, 49.
(8) Homer: Iliad 9, 648.
(9) Du Boulay 1974, 234 ff.
(10) Du Boulay 1974, 21, 126; Friedl 1962, 65.
(11) Homer: Odyssey 14, 199 ff.
(12) Mastrokostas: personal statement.
(13) Tsiokanos: personal statement.
(14) Friedl 1962, 60, 61.
(15) Rapoport 1969, 36.
(16) Mastrokostas: personal statement.
(17) Friedl 1962, 60.
(18) Plans taken from Moutsopoulos 1979, 25.
(19) Mastrokostas: personal statement.
(20) Sanders 1962, 55; Megas 1969, 276.
(21) Rapoport 1969, 107 ff.
(22) Friedl 1962, 62.
(23) Bammer 1982, 8.
(24) Rainer 1977, 205.
(25) Goutsaris, T., personal statement.
(26) Walcot 1970, *passim*.
(27) Du Boulay 1974, 73, 94; Friedl 1962, 57.
(28) Sanders, 1962, 132.
(29) Walcot 1970, 58.
(30) Du Boulay 1974, 209.
(31) Campbell 1964, 199; Du Boulay 1974, 130.
(32) Blum & Blum 1965, 76; Du Boulay 1974, 111 ff, 115.
(33) Du Boulay 1974, 101, 107.
(34) Campbell 1964, 152.
(35) Blum & Blum, 1965, 48; Campbell 1964, 276; Du Boulay 1974, 136; Friedl 1962, 90.
(36) Campbell 1964, 163.
(37) Campbell 1964, 166.
(38) Friedl 1962, 75,76.
(39) Du Boulay 1974, 104.
(40) Du Boulay 1974, 22, 124.
(41) Campbell 1964, 200.
(42) Du Boulay 1974, 125.
(43) Walcot 1970, 22.
(44) Campbell 1964, 297 ff; Du Boulay 1974, 110; Sanders 1962, 128.
(45) Vacalopoulos 1983, 125 ff.
(46) Du Boulay 1974, 150.
(47) Blum & Blum, 1965, 128; Campbell 1964, 267; Du Boulay 1974, 143.
(48) Campbell 1964, 265, 312 ff; Du Boulay 1974, 174, 188; Vacalopoulos 1983, 291.
(49) Du Boulay 1974, 76, 109, 181 ff; Campbell 1964, 212 ff.
(50) Du Boulay 1974, 53, 75; Campbell 1964, 282 ff.

(51) Du Boulay 1974, 108, 212.
(52) Blum & Blum 1965, 43; Du Boulay 1974, 22, 169 ff, 188; Friedl 1962, 80.
(53) Du Boulay 1974, 189; Campbell 1964, 38.
(54) Campbell 1964, 205.
(55) Blum & Blum 1965, 24.
(56) Blum & Blum, 1965, quotation from p. 25; Holden 1972, chapter 1 *passim*.
(57) Blum & Blum 1965, 25.
(58) Campbell 1964, *passim*; Höeg: *passim*.
(59) Friedl 1962, 87.
(60) Blum & Blum 1965, 227
(61) Blum & Blum1965,39,47;Du Boulay 1974,75ff; Campbell 1964, 284 ff; Walcot 1970, 22.
(62) Blum & Blum 1965, 46.
(63) Blum & Blum 1965, 41.
(64) Du Boulay 1974, 81; Campbell 1964, 316: Holden 1972, 93 ff.
(65) Blum & Blum 1965, 47.
(66) Sanders 1962, 283.
(67) Blum & Blum 1965, 227.
(68) Holden 1972, 94 ff.
(69) Blum & Blum 1965, 39; Sanders 1962, 43.
(70) Du Boulay 1974, 38 ff; Blum & Blum 1965, 39; Campbell 1964, 300; Walcot 1970, 80.
(71) like (70).
(72) Lawson 1964, 33 ff.
(73) Sanders 1962, 279 ff.
(74) Du Boulay 1974, 244; Mastrokostas: personal statement.
(75) Campbell 1964, 109.
(76) Walcot 1970, 61 ff.
(77) Du Boulay 1974, 164 ff; Friedl 1962, 72 ff.
(78) Du Boulay 1974, 219; Blum & Blum 1965, 223; Holden 1972, 276 ff; Sanders 1962, 235.
(79) Du Boulay 1974, 213 ff.
(80) Campbell 1964, 231, 237.
(81) Du Boulay 1974, 215 ff.
(82) Campbell 1964, 210; Du Boulay 1974, 159.
(83) Walcot 1970, 26.
(84) Sanders 1962, 205 ff.
(85) Campbell 1964, 284, 304; Friedl 1962, 83; Sanders 1962, 209.
(86) Campbell 1964, 160; Philippides 1973, 162; Sanders 1962, 209.
(87) Sanders 1962, 210.
(88) Mastrokostas: personal statement.
(89) Friedl 1962, 50.
(90) Sanders 1962, 210.
(91) Campbell 1964, 224 ff; Friedl 1962, 92 ff.
(92) Campbell 1964, 228.
(93) Campbell 1964, 224.
(94) Kanatas: personal statement.
(95) Vacalopoulos 1973, 362.
(96) Mastrokostas: personal statement.
(97) Du Boulay 1974, 54; Campbell 1964, 342.
(98) Campbell 1964, 342; Holden 1972, 273.
(99) Lawson 1964, 51; Ware 1963, 261 ff.
(100) Campbell 1964, 343.
(101) Blum & Blum 1965, 24; Holden 1972, 27; Lawson 1964, 43 ff; Sanders 1962, 25, 259 ff.
(102) like (101).
(103) Loukopoulos 1938, 163 ff.
(104) Campbell 1964, 320; Ware 1963, 274 ff.
(105) Du Boulay 1974, 58 ff.
(106) Du Boulay 1974, 60; Campbell 1964, 353.
(107) Ware 1963, 229.
(108) Campbell 1964, 354.
(109) Du Boulay 1974, 52 ff; Campbell 1964, 331 ff.
(110) Blum & Blum 1965, 178 ff; Du Boulay 1974, 74, 180; Sanders 1962, 263.
(111) Blum & Blum 1965, 80; Lawson 1964, 108, 405; Sanders 1962, 270.
(112) Du Boulay 1974, 82; Campbell 1964, 329; Lawson 1964, 124 ff.
(113) Lawson 1964, 264 ff.
(114) Lawson 1964, 270 ff.
(115) Lawson 1964, 265.
(116) Personal experience when apartment houses are being erected today.
(117) Mastrokostas: personal statement.
(118) Mastrokostas: personal statement.
(119) Campbell 1964, 343.
(120) Mastrokostas: personal statement.
(121) Kounados: personal statement.
(122) Kounados: personal statement.
(123) Lawson 1964, 197.
(124) Goutsaris, T: personal statement.

The village plan

(1) Kanatas: personal statement.
(2) Wycherley 1967, 10.
(3) Ryckwert 1976, 41.
(4) Aristotle: Politics VII, 276, 1330 a.
(5) Although he finds only south acceptable in another book,
(6) Rapoport 1969, 8.
(7) Rapoport 1969, 29, 42.
(8) Ryckwert 1976, 43.
(9) Mumford 1966, 166.
(10) Ryckwert 1976, 43.
(11) Ryckwert 1976, 86.
(12) Ryckwert 1976, 41 ff.

(13) Wycherley 1967, 31 ff.
(14) Ryckwert 1976, 34.
(15) Mumford 1966, 202.
(16) Wycherley 1967, 15, 33 ff.
(17) Wycherley 1967, 16.
(18) Ryckwert 1976, 91.
(19) Mastrokostas: personal statement.
(20) Pausanias: Book X, 4.
(21) Wycherley 1967, 68, 88 ff.
(22) Of recent times, commemorating Galatistans killed in the last war.
(23) Mumford 1966, 150.
(24) Kitto 1962, 99.
(25) Wycherley 1967, 34: Mumford 1966, 151.
(26) Bouras 1983, 146; Philippides 1973, 146.
(27) Moutsopoulos 1971, 216; Stylianou 1982, 43.
(28) Enquist 1960, 21: Megas 1969, 316.
(29) Haugsted 1978, 71 ff; Wycherley 1967, 187 ff.
(30) Moutsopoulos 1979, 15.
(31) Megas 1969, 417.
(32) Megas 1969, 365.
(33) Megas 1969, 367.
(34) Megas 1969, 376.
(35) Bammer 1982, 91.
(36) Megas 1969, appendix A, B, Γ, Δ, E, ΣT, Z and p. 300.
(37) Koukoules 1901, 279 ff.
(38) Philippides 1973, 142 ff.
(39) Grabrijan & Neidhardt 1953, 155.
(40) Rainer 1977, 51.
(41) Bammer 1982, 77.
(42) Kanatas: confirmed by him.
(43) Mastrokostas: personal statement.
(44) Kanatas: personal statement.
(45) *Kathimerini* 25 Dec. 1977 by the architect Basil Charisis.
(46) Basil Charisis's estimation.
(47) In the Greek sense: upper town.
(48) This building was originally designed as a school after the liberation from the Turks.
(49) Mastrokostas: personal statement Kanatas: personal statement.
(50) Mastrokostas: personal statement.
(51) Samaras: personal statement.
(52) Mastrokostas: personal statement.
(53) Koubas 1983, 93 n.
(54) Mastrokostas: personal statement Kanatas: personal statement.
(55) Wycherley 1967, 208.
(56) It was repaired in the interim.
(57) Wycherley 1967, 199; Haugsted 1978, 69;
(58) Loukopoulos 1938, 340.
(59) Papagellos 1978, 70.
(60) Mastrokostas: personal statement.
(61) Loukopoulos 1938, 285.
(62) Loukopoulos 1938, 285.
(63) Papagellos 1978, 70.
(64) Mastrokostas: personal statement.
(65) Loukopoulos 1938, 292.
(66) Loukopoulos 1938, 122.
(67) Goutsaris, T: personal statement.
(68) Lawson 1964, 35; Mumford 1966, 158 ff; Wycherley1967, 160 (plate XII).
(69) Loukopoulos 1938, 247 ff.
(70) Lawson 1964, 35.
(71) Is this the ancestor of "scene": *σκηνή* meaning tent or stage today?
(72) Personal observation.
(73) In houses like BG2 (Fig. 115) and KClw (Figs. 51, 52) one can still see remains of the original unit in the basement, representing Type I or II (cf. p.54).
(74) Tsiokanos: personal statement.

The evolution of the *pastas* house in Galatista

(1) Wycherley 1967, 187 ff.
(2) Xenophon: III, 8.
(3) Wycherley 1967, 187 ff.
(4) Wycherley 1967, 188 ff.
(5) Petsas, Ph., Prof. of Archaeology: lecture in Salonica 1984.
(6) Megas 1969, 317.
(7) Koukoules 1901, 293.
(8) Moutsopoulos 1971, 58.
(9) Enquist 1960, 20-21.
(10) Michelsen 1976, 82-85
(11) Rapoport 1969, 102.
(12) Kriesis 1948, 267 ff.
(13) Megas 1969, 122 *passim*.
(14) Megas 1969, 125, 143.
(15) Bouras 1983, 172; Megas 1969, 301 ff; Stylianou 1982, 111.
(16) Megas 1969, 121-199, 296-305.
(17) Megas 1969, 289, 296 fig. 16, photo 18, 2.
(18) Megas 1969, 289, 124 fig. 31, photo 18, 1; Moutsopoulos 1979, 137-142.
(19) Moutsopoulos 1979, 23, 118, 133-136.
(20) Moutsopoulos 1979, *passim*.
(21) EA3 and LA8 are most unusual houses that once had a three-storeyed open gallery.
(22) Byzantine name?

(23) Arabic loan word in Turkish meaning verandah.
(24) Mastrokostas states that they were often taken in recent times from the caravan route on the mountain to the east of Galatista (cf. Fig. 8).
(25) Mastrokostas: personal statement.
(26) Moutsopoulos 1967, 65; Stylianou 1982, 169.
(27) I personally experienced a strong earthquake, 5.2 on the Richter scale, in summer 1978 when staying in AF5. The old house shook and creaked, and remained where it was.
(28) Moutsopoulos 1967, 75.
(29) Mastrokostas house GG7w had originally such a floor in the north west room before rebuilding in 1922. Abandoned houses like KClw and KBlw still have such floors.
(30) Megas 1969, 125.
(31) In Paliokastro (Fig. 2) there are still abandoned houses with such roofs.
(32) Mastrokostas: personal statement.
(33) For this reason I doubt that the reconstructions of houses in ancient Olynthos are correct: the side wings are always shown with saddle roof.
(34) Mastrokostas: personal statement; Philippides 1973, 157.
(35) In Kanavas house BA2w floor boards and window frames have been nailed with wooden spikes.
(36) Rapoport 1969, 105.
(37) Mastrokostas: personal statement.
(38) Megas 1969, 131; Moutsopoulos 1979, 43.
(39) Mastrokostas: personal statement.
(40) Megas 1969, 174.
(41) They look strangely Byzantine in form.
(42) This was a common solution in other parts of Greece as well (cf. Megas 1969, 125, photo 18, 3).
(43) Mastrokostas: personal statement.
(44) Mastrokostas: personal statement.
(45) Samaras: personal statement.
(46) Mastrokostas: personal statement.
(47) Rapoport 1969, 81.
(48) Supposed to be the Homeric *propylion* (D. Vasiliades: *Οδοπόρια στις μορφές και του ύφος του Ελληνικού χωριού*, p.186).
(49) Use has been made of machine-cut timber which was hardly available before the new carriage road had been finished in 1922.
(50) The construction is similar to that of an *archontiko* in Arnea (cf. Moutsopoulos 1979, 31).
(51) It is evident that it was originally an open gallery, because in the west facade one can still see a pillar with an elaborate column similar to those in the south facade.
(52) Turkish word meaning guest room.
(53) A plate has been set up on the west facade with initials and the year 19?5 but the third number is unfortunately illegible.
(54) Goutsaris, Y: personal statement.
(55) Panelas, D: personal statement.
(56) cf. Goutsaris, Kanavas, E. Panelas houses, pp. 60, 70,84.
(57) These houses have been built according to unwritten laws, so there is no archive where one could study the plan of each house.
(58) Kanatas: personal statement; Mastrokostas: per sonal statement.
(59) Mastrokostas: personal statement.
(60) Bouras 1983, 24 ff; Moutsopoulos 1971, 219.
(61) Vacalopoulos 1973, 318
(62) Bouras 1983, 25.
(63) Bammer 1982, 75; Goodwin 1971, 438.
(64) Goodwin 1971, 433.
(65) Grabrijan & Neidhardt 1953 *passim*.
(66) Goodwin 1971, 441.
(67) Moutsopoulos 1971, 417.
(68) Goodwin 1971, 137, 433.
(69) Stylianou 1982, 172 n.
(70) The word *sachnissi* is of Persian origin and means the throne of the shah.
(71) The transient nature of these structures was intended, not for reason of economy as among the poor, but because of the Moslem belief in the permanency only of Allah, and so building afresh rather than maintaining had been ingrained. (Goodwin 1971, 450).
(72) Moutsopoulos 1971, 29, 407.
(73) Megas 1969, 170.
(74) Bammer 1982, 118.
(75) Goodwin 1971, 433.
(76) Moutsopoulos 1971, 65.
(77) Moutsopoulos 1971, 30, 244.
(78) Turkish word for room.
(79) Moutsopoulos 1971, 339, 415.
(80) Pikionis D. red. 1949, Σπίτια της Ζαγοράς. Stylianou 1982, *passim*.
(81) Megas 1969, 179 ff; Moutsopoulos 1971, 294 ff.
(82) Moutsopoulos 1967: *passim*.
(83) Megas 1969, 303 ff; Moutsopoulos 1971, 250 ff.
(84) Megas 1969, 431 ff; Moutsopoulos 1971, 214 ff; Pikionis, D.red.1948: Αρχοντικά της Καστοριάς *passim*.
(85) Stylianou 1982, 129.
(86) Bouras 1983, 26.
(87) Moutsopoulos 1967, 53.

(88) Moutsopoulos 1971, 102.
(89) Philippides 1973, 173; Goodwin 1971, 432.
(90) Kanavas, Y: personal statement
(91) The same awkward solution can be seen in GB1.
(92) Megas 1969, 300.
(93) Moutsopoulos 1971, 414.
(94) This was also the case for areas inhabited by Greeks in West Anatolia (Goodwin 1971, 432).
(95) I have seen similar window framing on *sachnissia* at the monastery of Megas Timios Prodromos near Serres, which have dates from the middle of the 19th century.
(96) Except the above mentioned GH2e.
(97) cf. Bammer 1982, Acarca's house, 1st floor.
(98) cf. Goodwin 1971, fig. 496, p. 437.
(99) It may actually be a rebuilding of a refined house, but by a local builder, who may have had a ready-made solution from the beginning.
(100) This solution makes one wonder if the origin of the *sachnissi* does not go back to a similar situation. Yet it took the skill of master builders to let it "go around the corner" for further extension and better view when situated at a street corner.
(101) Moutsopoulos 1967, 47.
(102) Megas 1969, 121.
(103) Pikionis D. red 1949.: Σπίτια της Ζαγοράς, fig. 60; Stylianou 1982, 129, 136, 154, 159.
(104) Tsakiropoulos: personal statement. His wife is a descendant of the original owner.
(105) Vacalopoulos 1983, 235.
(106) Philippides 1973, 69 ff.
(107) Stylianou 1982, 129.
(108) Goodwin 1971, 441 ff.
(109) Moutsopoulos 1980, 47.
(110) Stylianou 1982, 129.
(111) Tsakiropoulos: personal statement.
(112) This house is from the end of the 19th century as stated by the owner, an old lady, whose grandfather had the house built.
(113) A painted iron door with glass panes has recent ly replaced the old and a bathroom has been accommodated just outside the door.
(114) Goodwin 1971, 437, fig. 496.
(115) It is also a common feature in houses in Makrinitsa (Stylianou 1982, 151, 153, 156, 159).
(116) Moutsopoulos 1980, 48.
(117) It was actually built for a teacher in the begin ning of this century, as stated by the present owner.
(118) Megas 1969, 138, 139, fig. Eß,4.
(119) Mastrokostas, T,: personal statement.
(120) Mastrokostas: personal statement.
(121) This narrow balcony has some strange affinity to the narrow balconies of the Greek apartment house after the 2nd World War. They too cover the whole facade.
(122) The eastern dwelling has ceilings in all rooms so the structure of the roof is not visible.
(123) Moutsopoulos 1971, 51.
(124) Could this be an indication that the house was built when a synoecism was formed, and retaining walls were built before each family received so and so many bays? Then there would certainly be strong parallels to the system in Olynthos.
(125) Philippides 1983, Vol.1, 51 ff.
(126) Mastrokostas: personal statement.
(127) Moutsopoulos 1979, *passim*.
(128) Megas 1969, *passim*.
(129) Megas 1969, 124, fig. 32, photo I8, 2.
(130) Megas 1969, 289.
(131) Megas 1969, 290.
(132) cf. Moutsopoulos 1979: plans on p. 22 (The partition walls on the 1st floor are actually of half-timber work accordingly to personal observation).
(133) Megas 1969, 129.
(134) AJ2, EA3, GH2e, HAlw, HA3s, JC1.
(135) This is unusual. Did they once build this as a new house in the yard of the old house in order to put up the growing patrilocal family, thus evading the old rule concerning distance to neighbours?
(136) I am aware that this house has a different construction principle, but it is shown here, because it might as well have been constructed as in the diagram.
(137) Megas 1969, *passim*.
(138) Megas 1969, 304.
(139) cf. Moutsopoulos 1979: *passim*. Concerning the reconstruction of the "Villa of the Good Fortune" in Olynthos (Wycherley 1967, pl. XV a), I very much doubt that a house built of adobe would have anything but a hipped roof to protect the walls against rain but also to render a further grip on the house during storms and earthquakes. Besides it is this kind of roof that one still sees all over mainland Greece on preindustrial houses. Furthermore I also doubt that houses built in a synoecism for defence would ever have anything like window

openings towards the street or for that matter towards the neighbouring house.

(140) Rapoport 1969, 10.

(141) Rapoport 1969, 13.

Impact of modern technology

(1) Kanatas: personal statement.

(2) Goutsaris, T: personal statement.

(3) A. Papandreou's socialist government had improved it considerably, but inflation later swallowed most of the increase.

(4) Sanders 1962, 296.

(5) They had ousted the old mule-pulled olive press in DA7.

(6) G.N.S.S. 1961, 1971.

(7) G.N.S.S. 1971.

(8) I am convinced that people working inside "culture" are not paid for their contribution and they live in reality from one of the other occupations or they are unemployed.

(9) The results from 1981 have not yet been worked out.

(10) Du Boulay 1974, 233 ff: Sanders 1962, 296 ff.

(11) Due to A. Papandreou's socialist government.

(12) One attempt had been made recently in BC15 but it closed down after only one year.

(13) The new socialist government tackled the problem nearly immediately after coming into office, but so far it has not been possible to eradicate this parapedagogism.

(14) The few cobbled lanes on Map 2 have now also been covered with concrete, the only exception being the lane in BB2.

(15) Until 1986.

(16) In most preindustrial cities high status individuals live near the centre, which is highly valued, as in the Inca city, Baroque towns, pre-contact Japan. (Rapoport 1969).

(17) Mastrokostas: personal statement.

(18) Including churches not regularly in use.

(19) Exclusive *archontika*.

(20) Exclusive *archontika* and outbuildings.

(21) One of the most ingenious ways is to design a modern house in front of the old, obtain building permission, and as soon as the new house has been finished, the old one is demolished and the plot made into a yard or a garden, e.g. AP3e, EC3w etc.

(22) Fatouras, Papadopoulos, Tentokali 1979: *passim*.

(23) In order to obtain building permission outside villages and towns the plot must at least be 0.4 ha.

(24) Because of the seismicity of Greece no other construction is permitted.

(25) Building permission had been given on the condition that only the outlet of the former mill race was left intact.

(26) It has been built by an architect.

(27) Free quotation from Rapoport 1969, 10.

(28) If not obeyed, no electricity connection.

Planning or chaos?

(1) Rapoport 1977, 8.

(2) Sharp 1946, 65.

(3) cf. Sharp 1946, 65.

(4) Rapoport 1977, 208.

(5) Rapoport 1977, 235.

(6) Sharp 1946, 66.

(7) This was apparently also the case in ancient Olynthos (cf. Fig. 22).

(8) Rapoport 1977, 369.

(9) cf. p. 31.

(10) Such often very beautiful picnic places have lately been set up all over Greece by the Greek Forest Service.

(11) Churches have been left out since the Greek Orthodox Church takes care of them, if they are not of great archaeological interest.

(12) Such an arrangement has been carried out in the Byzantine Museum in the White Tower in Salonica.

(13) AM5, BA2w, BK1, FD2w, KE5.

(14) The new road between Prodromos and Poliyiros will shorten the distance to Yerakini considerably.

(15) The Swedish composting toilet Clivus is used successfully in farmsteads in mountainous areas all over Sweden and Norway.

(16) cf. p. 31.

(17) This distance is never bigger than ca. 80 m in the old village.

(18) E.g. Aryirokastro in Albania, Ochrida in Yugoslavia, Melnikos in Bulgaria.

Hypothetic development of the village plan

(1) Μεγάλη Ελληνική Ενκυκλοπαίδια, 52.

(2) In the beginning probably close to the church, later further away.

(3) cf. diagram Fig. 150.

(4) 1 *orgyia* = 1 fathom = ca. 1.85 m.

(5) Ryckwert 1976, 91.
(6) like (2).

Bibliography

Bammer, Anthon 1982
Wohnen im Vergänglichen, Graz.

Bibikou, E. Antoniades 1979
Έρημα χωριά στην Ελλάδα. Ένας προσωρινός απολογισμός, Melissa, Athens.

Blum, Richard & Eva, Health 1965
Healing in Rural Greece, Stanford Univ. Press California.

Bouras, Charalambos 1983
'Introduction to Chios' in *Greek Traditional Architecture*, Melissa, Athens.

Campbell, J.K. 1964
Honour, Family and Patronage, Oxford Univ. Press.

Cary, M. 1949
The Geographic Background of Greek and Roman History, Oxford Univ. Press.

Charisis, V. 1977
'Εμπνευσμένοι «πολεοδόμοι» έχτισαν τους παραδοσιακούς οικισμούς', article in *Kathimerini* 25 Dec.1977

Du Boulay, J. 1974
Portrait of a Greek Mountain Village, Oxford Univ. Press.

Enquist, H.H. 1960
'Ældre Tyrkiske Bolighuse', *Arkitekten*, Copenhagen.

Fatouras, D., L. Papadopoulos & B. Tentokali 1979
Μελέτες για την κατοικία στην Ελλάδα, Salonica.

Friedl, E. 1962
Vasilika, a Village in modern Greece, New York.

Goodwin, G. 1971
A History of Ottoman Architecture, Baltimore.

Grabrijan, D. & J. Neuhardt 1953
Architecture of Bosnia. A way to Modernism, Sarajevo.

Hammond, N.G.L. 1972
A History of Macedonia. Vol. I: *Historical Geography & Prehistory*, Oxford Univ. Press.

Hammond, N.G.G. & G.G.T. Griffith 1979
A History of Macedonia. Vol. II: *550-336 B.C.* Oxford Univ. Press.

Haugsted, Ida 1978
Hippodamos, Copenhagen.

Hesiod, *Works and Days*.

Holden, David 1972
Greece without Columns. The Making of the Modern Greeks, London.

Homer, *Odyssey*.

Homer, *Iliad*.

Huxley, A. & G. D. Polunin 1965
Flowers of the Mediterranean, London.

Höeg, Carsten 1925
Les Sarakatsans, Vol. I. Copenhagen.

G.N.S.S.,
Greek National Statistic Service.

Kitto, E. 1962
The Greeks, Pelican.

Koubas, E. Vostani 1983
'Lesvos', in *Greek Traditional Architecture*, Melissa, Athens.

Koukoules, Phaedon, H 1901
'Η οἰκια στο Βυζάντιον, βίος και πολιτισμός', Athens, pp. 249-317.

Kriesis, A. 1948
'Tradition in Evolution. The Persistence of the Classic Greek House Demonstrated', *The Architectural Review*, London.

Lawson, J.C. 1964
Modern Greek Folklore and Ancient Greek Religion, Reprint New York.

Loukopoulos, D. 1938
Γεώργικα του Ρουμέλης, Athens.

Megas, G. 1969
Μελέται λαικής αρχιτεκτονικής, Athens. (Summary in German).

Michelsen, P. 1976
Frilandsmuseet ved Sorgenfri, Copenhagen.

Moutsopoulos, N.K. 1967
Τα σπίτια της Βέριας, Salonica.

Moutsopoulos, N.K. 1971
Μακεδονική αρχιτεκτονική. Συμβουλή εις την μελέτη της Λαικής οίκιας, Salonica.

Moutsopoulos, N.K. 1978
Bibliography on Vernacular Architecture in Albania, Yugoslavia, Rumania, Bulgaria, Turkey and Greece, Salonica.

Moutsopuolos, N.K. 1979
Τα σπίτια της Χαλκιδικής, Salonica.

Moutsopoulos, N.K. 1980
Θεσσαλονική 1900-1917, Salonica.

Mumford, Lewis 1966
The City in History, Pelicans.

Nickles, Harry G. 1972
The Cooking of the Middle East, Time-Life International.

Papagellos, J. 1978
Συμβουλή στην ιστορία και την αρχαιολογία της περιοχής της Γαλάτιστας, Χρονικά της Χαλκιδικής, Salonica.

Pausanias, *Guide to Greece*, Book X, 4 Penguin Classics 1971.

Philippides, D.A. 1973
The Vernacular Design Setting of Elymbos, Michigan Univ. Press.

Philippides, D.A. 1983
Introduction to *Greek Traditional Architecture*, Melissa, Athens.

Pikionis, D. 1948
Αρχοντικά Καστοριάς, Athens.

Pikionis, D. 1949
Σπίτια της Ζαγοράς, Πηλίου, Athens.

Rainer, Roland 1977
Anonymes Bauen in Iran, Graz.

Rapoport, Amos 1969
House, Form and Culture, New Jersey.

Rapoport, Amos 1977
Human Aspects of Urban Design, Pergamon Press.

Ryckwert, Joseph 1976
The Idea of a Town, London.

Sanders, Irwin 1962
Rainbow in the Rock, Harvard Univ. Press.

Sharp, Thomas 1946
The Anatomy of the Village, Penguin Books.

Sherrard, Philip 1971
Byzantium, Time-Life International.

Stylianou, R. 1982
Μακρινίτσα, Athens.

Touratsoglou, J. 1973
Λευκάδια, Ημαθείας (Odiyi Keramos), Athens.

Vacalopoulos, A. 1963
A History of Thessaloniki, Salonica.

Vacalopoulos, A. 1973
History of Macedonia 1354-1833, Salonica.

Vacalopoulos, A. 1983
Ο χαρακτήρας των Ελλήνων, Salonica.

Walcot, P. 1970
Greek Peasants, Ancient and Modern. A Comparison of Social and Moral Values, Manchester Univ. Press.

Ware, Timothy 1963
The Orthodox Church, Penguin.

Wycherley, R.E. 1967
How the Greeks built Cities, London.

Zagli, D.D. 1956
Χαλκιδική, ιστορία - γεωγραφία, Salonica.

Statements by inhabitants in Galatista:

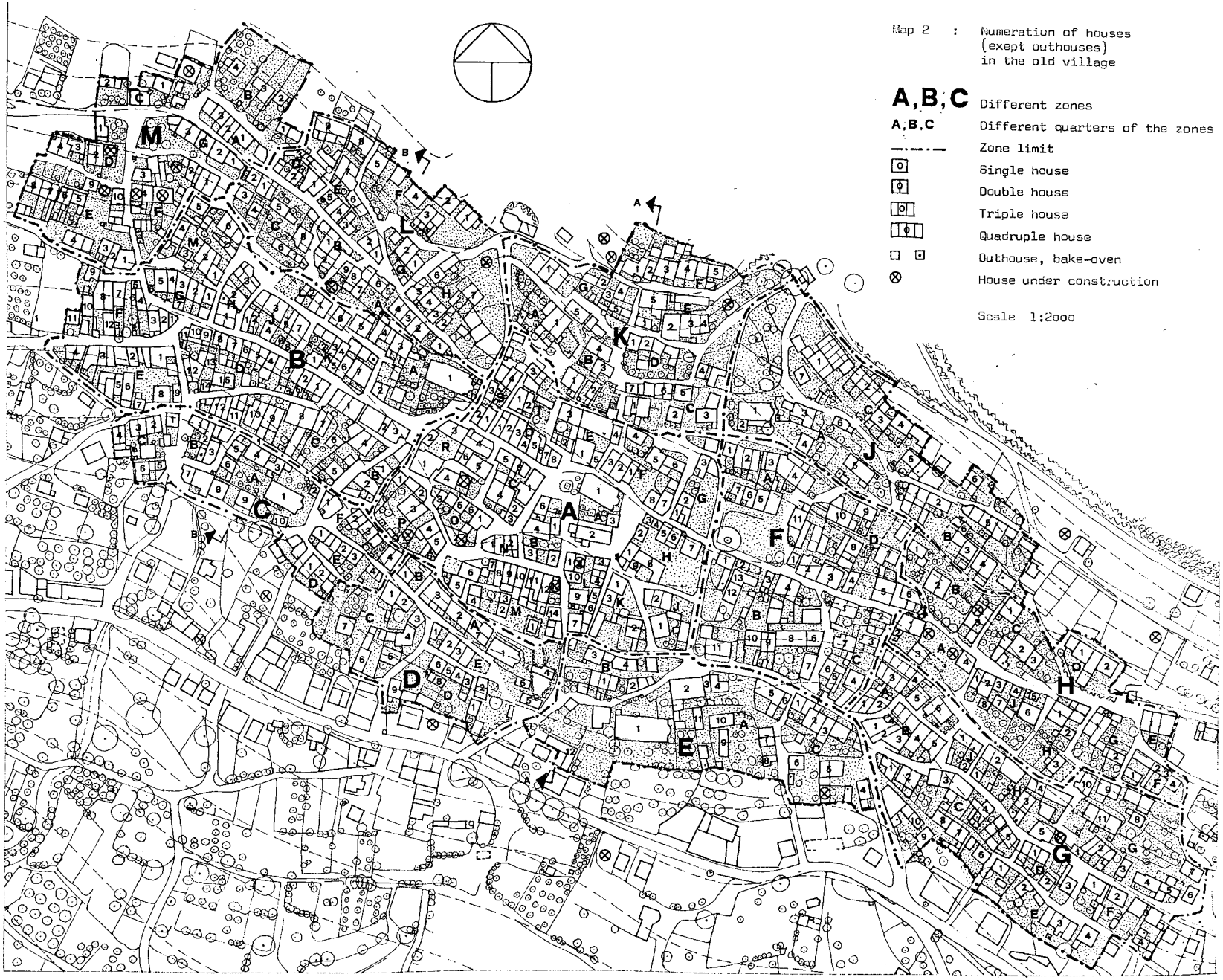
Asteriades, Yannis BA2e, farmer
Kanatas, Ioannis (formerly DD3) pensioner
Kanavas, Yannis (formerly BA2w) pensioner
Kounados, Zaphiris, owner of a coffee shop
Koutsaris, Triantaphillia, AF5, pensioner
Koutsaris, Yannis KC1e, farmer
Mastrokostas, Tasos GG7w, formerly local builder
Mastrokostas, Trigona GG7e, pensioner
Panelas, Dimitris KB4w, workman in Salonica
Panelas, Stella GB2, pensioner
Samaras, Dimitris HA3s, shoemaker
Tsakiropoulos, George, chemist
Tsiokanos, Aryiris BC1w, pensioner

Acknowledgement

The following illustrations are from:

Fig. 12: Moutsopoulos 1979
Fig .22: Wycherley 1967
Fig. 36: Wycherley 1967
Fig. 38: Wycherley 1967
Fig. 39: Touratsoglou 1973
Fig. 40: Poster from the Open Air Museum, Copenhagen.
Fig. 64: Goodwin 1971

Map 1 : Galatista and surroundings


Map 2 : Numeration of houses (exept outhouses) in the old village
A,B,C Different zones
A,B,C Different quarters of the zones
Zone limit
Single house
Double house
Triple house
Quadruple house
Outhouse, bake-oven
House under construction
Scale 1:2000