

TURKISH ARCHITECTURE

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INTRODUCTION

AN HISTORICAL OUTLINE OF TURKISH CULTURE

In this work we have tried to give a brief account of the cultures of the Seljuk Turks and Turks who ruled in Anatolia after them. A few words about the ancient Turkish states would be useful in order to explain the origin and nature of the Anatolian Turks.

The earliest references to the Turks in history are to be found in the Chinese chronicles recording the events of the IInd century B.C. Having fought against the Chinese for many years, sometimes alone and sometimes in alliance with the Moguls, these early Turkish tribes founded in the beginning of the Vth century A.D. the Göktürk Empire - called the Tukyü Empire by the Chinese - which extended from Manchuria to the Crimea, and such states as Hazar, Bulgar, Pechenek, Kuman and Uz in the lands extending from the Caspian Sea to the Danube.

We learn from the Orhun Inscriptions and works written in the Uigur alphabet and from the accounts given by their neighbours that the Göktürk Empire and the Uigur State which succeeded it, enjoyed a very high level of culture and civilisation. The Göktürk and Uigur alphabets, the 12 animal calendar, and numerous flourishing cities, a highly developed trade, economic and diplomatic relations with China, Persia and Byzantium bear testimony to this high level of civilisation. For example, the Uigur Turks knew how to make paper long before it was manufactured in Europe in the XIth century. They had learned the technique of making paper from the Chinese hundreds of years before, and established a paper mill at Samarkand. L. Rashonyi, a well-known Hungarian historian, is of the opinion that the Uigurs played the most important role in spreading the block system of printing to the west, and the Uigur

Turks have the credit of having used the oldest movable type in printing.

The Uigur Turks were also advanced in Medicine and Cosmography. An Uigur work written in 1202 deals with movements of the stars in relation to the sun. Another Uigur work on Cosmography describes the revolutions of the stars. This work has been examined by scientists of the Berlin Observatory who confirmed the truth of all the information it contained. The Uigurs also produced many works dealing with Law and Commerce. They exerted a deep influence over the Moguls who accepted their alphabet and used their language as the language of diplomacy for a long time. Göyük Han, a Mogul ruler (d. 1248) corresponded with the Pope in the Uigur language.

Gold cases, bowls and plates of Pechenek origin, found at Nagy-Szent-Miklos in the Torontul province of Hungary towards the end of the XVIIIth century are of a very high artistic value. On these articles are inscriptions resembling those on the Orkun Monuments, and Turkish inscriptions written in the Greek alphabet.

The Turkish states in the west were powerful, civilised organisations determined to preserve their political identity. The Avars, who had laid siege to Byzantium several times, were brave and skilled fighters. They also distinguished themselves in the field of art, and established a high standard of beauty and elegance.

The oldest religion of the Turks was Shamanism. Later in their history they also accepted Buddhism and Manism. The Arabs who came into contact with the Turks in eastern Persia during the second half of the VIIth century A. D. tried in vain to win the Turks over to Islam for two hundred years. After many fierce and bloody battles, the Turks accepted Islam, not by force however, but as a result of the religious propaganda that was made by Moslem missionaries among Turkish Peoples. When they believed that Islam was the right way they began to be converted in great numbers.

During the reign of the Abbasid Dynasty, Turkish prisoners were subjected to a special training and an army consisting entirely of such men was formed. The commanders of the units of this army were appointed as governors and commanders in Egypt and Persia, where they founded certain states such as the Tulunogulları and Ishıdı states in Egypt in the IXth and Xth centuries respectively. The mass conversion of the Turks in their fatherland and in Asia be-

gan in the Xth century. The Karamanlı State which accepted Islam in the Xth century put an end to the Samanlı State at the end of the same century and ruled over the regions of Samarkand and Buhara.

Kutatgu Bilig (1069) by Yusuf Hashadjip and *Divanu Lugat it-Türk* in three volumes (1074) by Mahmud of Kashgar were written during the Islamic period. The latter work is important not only from the point of view of Turkish language and literature, but from the point of view of the history of Turkish culture as well.

The Karaman Turks built, in the lands they ruled, such social buildings as mosques, schools, and caravanserais. Ebulvefa, who was trained in Horasan at an earlier period was a great astronomer and mathematician. He had profited by the work of the Musa-el Harezmi family which had come to Bagdad from Turkestan, and produced some important works on Algebra. Biruni, another great man of learning of the century, was also a Turk.

In the Xth century A. D. the regions around the Seyhun River, and the lands to the north, were inhabited by the Oğuz Turks. The important cities founded by the Oğuz Turks were Karachuk, Karnak, Sabran and Sugnak. The great Turkish philosopher Farabi was born in Karachuk which was called Farab in the Xth century.

The Oğuz Turks began to be converted to Islam at a time when they were still in their fatherland. After becoming Moslem the Oğuz were called Turkman (Turcoman), which meant a Moslem Turk.

The Great Seljuk Empire

An important Turkish state was founded in the region covering the lands between two Rivers, Horasan and Iran, in the XIth century, viz. the Great Seljuk Empire (1040 - 1175). The founders of this empire helped to advance Moslem-Turkish culture, aided the Abbasids, who were showing signs of weakness, and stood as the only source of enlightenment at a time when Western Europe was buried in darkness as a result of religious superstition and intolerance.

The Turkish state of Gaznevids was making great efforts to terminate the Moslem mediaevalism and introduce a renaissance into the Moslem world. The achievements of Farabi in Philosophy and Music, of Ibn-i Sina in Medicine, of Biruni in Mathematics, formed the foundations on which Turkish Art, Science and Philosophy were

built during the succeeding centuries. We see a deep and steady Oğuz influence on the Seljuks.

Tribes migrating from Turkestan and Horasan to Azerbaijan, and from there to Anatolia constituted a Turkish majority in those lands. Tugrul Bey, the Emperor of the Great Seljuk Empire, established his capital in Tehran (then called Rey) in 1040. Kutulmush, the son of Arslan Shah, came down to the plain of Erzurum after conquering Azerbaijan. Following the defeat of the Byzantine Emperor Romanos Diogenes by Alparslan at Malazgirt in 1071, the doors of Anatolia were opened wide for the Seljuks. After this event Oğuz tribes flowed into Iran and Iraq for two centuries.

The Seljuk Turks established medresehs, which were the universities of those days, in Nishabur and Bagdad. These institutions were founded for the purpose of protecting and spreading the doctrines of orthodox Islam against the subversive propaganda of such unorthodox sects as Shiite and Batini.

After the decline of the Great Seljuk Empire, many Turkish commanders called Atabeys founded small states in these regions. The most important of these were the Anatolian Seljuks, the Atabeys of Mousul, Shiraz and Aleppo.

Ibn-i Batuta, a famous traveller, and Ibn-i Hallekan, author of *Vefeyat al-Ayn*, visited Muzafferuddin Gökörü of the Mousul Atabeys and what they write about Muzafferuddin is of great interest. Gökörü had soup kitchens, hospitals and caravanserais built in his country, and he personally visited the poor and the sick in these institutions twice a week. He also built orphanages, homes for widows, the poor and lonely women, and established foundations to provide incomes for them. Atabey Nurettin Zengi established similar institutions in Syria.

The Anatolian Seljuks

The Seljuk Turks entered Anatolia after the Battle of Malazgirt and founded a state there. Thus Anatolia became an extension of Turkestan, and Iran, which lay between Anatolia and Turkestan, served as a convenient bridge. Anatolia was settled in by an overwhelming majority of Oğuz tribes, particularly after the Mogul invasion. The names of the 24 Oğuz tribes of Turkestan are still to be found among place names in Anatolia.

Ottoman registers for the XVth and XVIth centuries show clearly that the Turkish population of Anatolia was far in excess of its Christian population.

With the establishment of the Shiit Safevi State in Iran about the beginning of the XVIth century there was a slackening off in the relations of the above-mentioned three regions, where Turkish tribes had settled. However, this could not stop such Turkish folk tales as Kerem and Ashi, Ashik Garip, Arzu and Kamber, which originated among the Azerbaijan Turks, from spreading throughout Anatolia, and Koroğlu, who was a famous XVIIth century rebel, became a folk hero for the Turkish peoples of Iran, Turkestan and Anatolia.

During their migration to Anatolia the Turks brought with them everything they had in their fatherland: Their tents, their medium-sized horses capable of covering great distances and inured to severe climatic conditions, their special breed of sheep, their camels, their carts, and above all their weapons, of which the arrow was the most important, their clothes, their legends, their literature, their customs; briefly they carried with them all the material and spiritual culture of a nomadic yet settled society. Of their literature they brought to Anatolia the *Kutatgu Bilig*, *Atabet ul-Hakayik*, the poem of Ahmed Yesevi, a well-known Turkish philosopher, the works of Ali Shiir Nevai, the *Divanu Lugat it-Turk* of Mahmud of Kashgar, which was a famous dictionary and encyclopaedia. The founders or representatives of such sects as Yesevi, Bektashi, Mevlevi, Kadirî and Nakshibendî in Turkey had also come from Turkestan and Horasan. Owing to the overwhelming superiority in numbers of the Turkmens migrating to Anatolia over the native peoples, and the fact that they had a powerful indigenous culture, Anatolia soon became a Turkish land bearing Turkish characteristics in a distinct and definite way.

The Turks added to their national cultures the institutions and elements of the Moslem religion which they had recently accepted. They did not feel the need to borrow anything from the native peoples of Anatolia. At any rate it would not have been possible on account of continuous wars between them.

Turkish Culture During The Reign Of The Anatolian Seljuks

The Oğuz Turks captured almost the whole of Anatolia within 5 or 10 years following their victory in 1071. Suleyman Shah (d. 1086),

the founder of the Anatolian Seljuk State made Iznik his capital. During the 1st Crusade which took place towards the end of the XIth century, the Seljuks were obliged to move up to the central highlands, and made Konya their capital. Although the Byzantines made several attempts to expel the Turks from Anatolia, after the defeat of the Byzantine Emperor Manuel Comnenus by Kilicharslan II (1155-1192) these attacks were abandoned. After this definite victory Anatolia gained the political stability that it needed, and thus it became possible to begin a period of cultural activity and prosperity.

The successors of Kilicharslan II added new territories to the state. Of these, Alaeddin Keykubat (1220-1237) was the greatest of the Seljuk Sultans. During his reign the Seljuk state became the most powerful and prosperous state of the Middle East.

The world of Islam, on the other hand, was undergoing a series of fundamental changes during this time. The Arabs were withdrawing from Sicily and Spain; the Mogul invasion in the east was breaking up the unity of Islam. The subversive and disruptive activities of the Batinis within Islam were gaining strength. Scholars from all over the Moslem world were taking refuge in Anatolia. Muhyiddin Arabi (1162-1240) left Spain and came to settle in Konya. Shaha-buddin Suhraverdi (1154-1191) who came to Anatolia from Azerbaijan founded the school of Moslem philosophy known as *illumism* taught such Seljuk princes as Imadeddin Karaarslan and Berkiyaruk, and dedicated some of his works to them. Anatolia enjoyed a large degree of religious tolerance at the time, and Suhraverdi had no difficulty in spreading his ideas in Turkey, but when he went to Aleppo, the fanatical emir of that city had him put to death. Siraceddin Urmevi, who is the most important theologian and logician in the Islamic world after Gazzali and Fahrurddini Razi, also lived in Konya. Two other schools of philosophy which came to Anatolia to find security under the pressure of the Mogul invasion were the folk mystics known as "Horasan Dervishes" and the Mevlevî sect founded by Bahauddin Sultan Veled and his son Mevlana. The Mevlevî sect which received royal support in Konya was the expression of a high order of mystic literature and art. Mevlana stated that he was a Turk by origin, but preferred to write his works in the Anatolian and Turk-estan dialects of Turkish and some in Greek, as well as some lines which are half Persian and half Turkish. Leading Turkish writers of the XIIIth century writing in Turkish were Shayyat Hamza, Hodja Dehhani, Sultan Veled and Yunus Emre. Hodja Dehhani

was the oldest representative of classical Turkish literature. Shayyat Hamza and Yunus Emre were folk mystics. Emre, who used pure Turkish in his works, was a great artist and the most famous of the Turkish mystic poets. Although Persian and Arabic were used as the official language in the court of the Seljuk Sultans in Konya, Seyyid Lokman mentions in his work *Icmal-i Ahval-i Al-i Seljuk* that in the Seljuk state registers Turkish was generally used side by side with Persian. About this time Turkish had begun to be the court language, and it was not long before Karamanoğlu Mehmed Bey forbade in 1277 the use of any other language than Turkish in official business.

After the second half of the XIIIth century, Anatolia was invaded by Moguls, and the Seljuk Sultans were subject to them until the time of the foundation, towards the end of the century, of the Ottoman Beylik, a state along the Byzantine border, by the Ottoman Turks (the Osmanoğulları) who were a branch of the Oğuz people. As Moguls employed Turkish scribes using the Uigur Turkish, they played an important role in spreading the Turkish language in Anatolia. As the beys of the Turkish tribes coming to Anatolia knew no other language than Turkish, their correspondence was done in this language and they had the cultural works they needed translated into Turkish.

If the Mogul domination of Anatolia had lasted long, Turkey would have suffered much, as did Iran, whose door was open to any invasion. Fortunately Turkey still had the material and spiritual strength she needed to fight against the Moguls. This strength was derived from the nomadic Turkmen Tribes who were in the Marmara region which the Seljuks were unable to conquer, and founded strong states there.

The Organization of The Seljuk State

The organization of the Seljuk State was a combination of the ancient Turkish and Islamic traditions and conceptions of state. In conformity with a very ancient custom Seljuk sultans sent their sons to the provinces of their kingdom together with the Atabeys (commanders) entrusted with their training. The princes who were put at the head of governmental organization exactly like the one in the capital only smaller in size, learned statecraft. According to

the ancient Turkish tradition and law, the state territory was regarded as the joint property of the ruling dynasty. The Seljuks were close followers of this tradition. Before his death, Kılıçarslan II (1155-1192) divided his kingdom among his 11 sons. This tradition, which was an important factor in the decline and disappearance of many Turkish states, continued after the Seljuks. During the Seljuk period the provinces were governed by military governors called *subashu*. The vezirs were the advisors of the ruler. The *Beylerbeyis*, *Subashus*, *Atabeys*, *Tugrajis* and other high ranking state officials were given such titles as Uluğ, Bilge, İnanch, Tuğrul, Tigin, Alp, et., each appropriate to his station. The Seljuks introduced into Anatolia the system of *miri* lands, that is the system of state ownership of land, which was until then unknown in this country. The people had only the right to work on the land. Another system that Seljuks introduced into the Islamic world was the system of allocating taxes on certain state lands to military commanders in return for services.

Development of Social Life

With the Turkish conquest of Anatolia, and the foundation of the Seljuk state there, Central Anatolia enjoyed a degree of development it had never had before. Central Anatolian towns which were shabby little places during the Byzantine period became under the Seljuk rule large centres of culture and civilization. The following cities were rebuilt by the Turks: Ankara, Kayseri, Sivas, Amasya, Tokat, Niğde, Kırşehir, Erzincan, Kastamonu, Akshehir and Antalya. These cities were embellished with numerous temples, institutions of learning and charity, palaces and caravanserais. Members of various trades were organised in a system of guilds, each guild occupying a different part of the business section of the town.

The Seljuks minted copper, silver and gold money, and like the Gök Turks, called their monetary unit *akcha*. During the Seljuk rule Turkey became, on account of its geographical position, one of the leading centres of commodity exchange in international trade relations. Farmers and businessmen enjoyed the support and protection of the state. There were many instances of businessmen's losses being compensated by the state. The most striking evidence of the fact that the Seljuks supported and encouraged commerce are the caravanserais they built on the trade routes. Still standing but

mostly in a state of ruin, these institutions were unique both as works of architecture and from the point of view of their function. They were immense and firm structures built to meet all the requirements of the travellers staying in them. We learn from the wills of the persons who had them built that parties of merchants could stay in them free of charge, those sick among them were given treatment, and their old shoes were repaired. Travellers could wash, pray, and in some caravanserais, even have entertainment. Animals were given food and treatment. Merchants were normally allowed to stay at a caravanserai no longer than three days. If bad weather prevented the journey their stay could be extended. As these buildings were very costly, only rulers and high-ranking statesmen could afford to have them built. The heavy expenditure on these caravanserais was met by special foundations.

Learning

The earliest form of Moslem medresehs, which were institutions of learning corresponding to present-day universities, are to be found in Horasan in the Xth century A. D., but these institutions assumed their proper identity through the efforts of Nizamulmulk, a vezir of the Great Seljuk State. Nizamulmulk founded medresehs in Bagdad and in other cities.

All the Seljuk sultans who succeeded Kılıcharslan II were well educated men. Kılıcharslan II, who could not receive a formal education owing to the unfavourable conditions under which he grew up, showed great respect to men of learning and benefited from their learning by inviting them to hold debates in his presence. The sultans succeeding him acted similarly; Keykubat in particular was a sultan not only capable in statecraft, but also a very cultured man. He was a patron of artists and men of letters. Whenever he heard of a famous writer or thinker he used to invite him to his court. An Armenian historian of the time rightly calls him "Keykubat the Learned".

Mengudjuk oğlu Davud II, the ruler of Erzincan, a vassal of Keykubat, was a man well versed in logic, natural sciences, theology, mathematics and astronomy. Abdullatif Bagdadi, a wellknown physician and historian, lived several years in Davud's palace and dedicated some of his works which he wrote there to his patron.

Seljuk sultans built many medresehs of which the most important will be examined in the second part of this book.

The Seljuks paid particular attention to medicine, and built hospitals called "Darushshifa" in almost every city. The most important among these are: The hospitals of Gevher Nesibe (1205) in Kayseri, Izzeddin Keykavus I (1217) in Sivas, Alaeddin Keykubat in Konya, Atabek Ferruh (1235) in Çankırı, Turhan Melek (daughter of Fahreddin Behram of the Mengudjuk family) in Divrigi, Turumtay (1266) in Amasya, Muinuddin Pervâne (1275) in Tokat, and Pervâne oğlu Ali (1272) in Kastamonu.

It is believed that astronomy was studied and observations were taken in some medresehs. One of these was the Jaja Bey Medreseh built in Kirshehir in 1272. Some Seljuks were seriously interested in astronomy.

Seljuk Music

Music has been an inseparable part of Turkish social life since very ancient times. There were royal bands in Turkish states even in pre-Islamic times. This was unique because no other state had such bands at the time. These bands used to play at appointed times at the palace. In the Karaman and Seljuk states the band used to play at the palace five times a day. We know that the Göktürk emperors used to present banners and drums to princes as a symbol of sovereignty. At the royal palace and in the houses of important statesmen, there were musicians, singers and dancers. By nature Turks are an energetic and cheerful nation. Music which was forbidden in Moslem worship, was introduced, together with dancing, by the Turks into worship in the form of Mevlevi *sema*. As generally believed, the Mevlevi music and dance did not come to Anatolia with Mevlana, but it was practised by a man from Harput half a century before.

Folk poets called *ozan*, who sang to the accompaniment of instruments such as the *kopuz* and *ney* have always been popular among Turkish people. *Ozans* sang the national legends of their fatherland. The Turks brought their love of music from Central Asia. The rich and exciting Turkish music left deep marks on the music of other Moslem countries.

The Emergence of The Beyliks (Principalities) in Anatolia

When the Seljuks came under Mogul dominion towards the end of the XIIIth century, they lost much of their power. With the death

of the Mogul ruler Ebusaid Bahadır Han a series of endless dynastic quarrels began among his successors. This was a good opportunity for many Turkish *bey*s to reject Mogul dominion and gain independence. This is how the principalities came into existence. The Turks living in the east along the borders of the Mogul Empire also took advantage of the domestic quarrels prevailing in this empire and set about gaining their independence. One of these is the state of Ertana, founded by Ertana, an Uigur Turk in the Kayseri and Sivas region. During the second half of the XIVth century this was succeeded by the state of Kadı Burhaneddin of Turkmen origin. In eastern Anatolia the states of Karakoyunlu (Black Sheep) and Akkoyunlu (White Sheep) were founded.

The period of principalities in the history of Turkey roughly covers two hundred years extending from the beginning the XIVth century till the beginning of the XVIth century. In this period Turkey was divided into numerous small beyliks or principalities, the most important of which were the following: Karamanoğulları in the Konya region (1256-1483), Eshrefoğulları in Beyshehir (?-1328), Hamid oğulları in Isparta and Antalya (The end of XIIIth-1391), Inançoğulları in Denizli (1277-1368), Menteshoğulları in Muğla (1300-1425), Aydınoğulları in Izmir and Aydın (1300-1403), Saruhanoğulları in Manisa (1300-1410), Karasioğulları in Balıkesir (1300-1336), Osmanoğulları in Eskişehir and Bursa (founders of the Ottoman Empire), Germeyanoğulları in Kutahya (1300-1428), Jandarogulları in Kastamonu (1292-1461), Ramazanoğulları (1378-1608) (after having remained a long time under Ottoman protection), and Dulakiroğulları in Marash (1339-1521).

In the XVIth century the western Turks attempted to recover the political prestige that they had once enjoyed in the Islamic world. Although the invasion of Tamurlane was responsible for the extension of the period of principalities, that is, for holding back the establishment of political unity in Anatolia by the Ottomans, it never prevented Turks from carrying out their conquests. In fact, while the Ottoman conquests were going on in Europe, the Karakoyunlu were busy, from the beginning of the XVth century, enlarging their territories at the expense of Iran and Iraq. They had succeeded in founding a large state covering much of the territories of these two countries. In this the Akkoyunlus followed them in the second half of the same century.

Social and Cultural Life During the Period of the Principalities

The ethnic structure of Turkey had gradually been strengthened during the period of the principalities, the Christian population had been reduced to the minimum, in spite of the fact that there were no records of mass conversion. According to the Ottoman tax registers for the years 1520-1530 there were 750, 993 Turkish tax payers, and only 9,606 Christian tax payers in the region remaining west of the Samsun-Kayseri-Mersin line.

It may at first glance seem that the division of the country into small territories would be detrimental to its culture. On the contrary, the rivalry among the *beyliks* was responsible for spreading culture to wider areas in the country. The role of the Horasan Dervishes, Babais and Bektashis, representatives of the Central Asian Turkish culture who had to take refuge in Turkey during the Mogul invasion, was important in this development.

The period of beyliks is marked by numerous cultural achievements. The Inanchoğulları of Denizli began for the first time in our history to commission the writing of Turkish works (1277). The earliest of these writers known to us are Ladiki and Hakipoğlu. The Aydınoğulları also rendered important service to the advancement of Turkish culture. A life of the prophet Mohammed, Ferududdin Attar's *Teskiret-ul Evliya, Kelile and Dimne* (by the order of Umur Bey), and Ibn-i Baytar's *Mufredat-ı Tib* were some of the works translated about this time. What is remarkable is that these translations were written in plain Turkish and that in the translation of Ibn-i Baytar's work common words of spoken Turkish were preferred to unusual medical terminology. This translation of Ibn-i Baytar's work constitutes a rich source for a Turkish medical and pharmaceutical dictionary. There were native medical authorities too; and the number of works dealing with medicine is very high. Hadji Pasha of Konya (d. 1414), one of the greatest physicians of the age, wrote numerous medical works in Arabic and Turkish. The *Koran* was translated for the first time on behalf of Jandaroglu Beyazit Bey under the title of *Jevahir-ul Asdaf*. Coming at the beginning of a national culture movement, this was the first attempt at translating the *Koran*, and it can, to a certain extent, be compared to Luther's translation of the Bible. The vigorous and systematic development of a religious literature

in Kırşehir and north-west Anatolia was closely related to this translation of the *Koran*.

Hadji Bektash, as recorded in his *Menakıb*, settled in Kırşehir, and was supported by Jaja oğlu Nureddin Bey, who was a patron of artists and men of letters. He had many mosques, turbehs and medresehs built, and many scholarly works written. What is significant is that these works are the earliest serious works in the history of Turkish literature. The earliest centre of the Bektashi sect was in Kırşehir. Ashik Pasha wrote his *Garipname* (1329), the first major work of Turkish mystic literature, in the same town. Gulshehri's *Keramat-ı Ahi Evran* (1317), which is about the legend of the Ahi organization, the mystic poetry of Yunus Emre the dervish and Tapduk Emre, both important figures in the literary history of Anatolia, belong to this time and area.

The Ahi organization, which was a corporation of Turkish artists and members of the different trades, was spread all over Turkey in the XIVth century. The Ahis were very hospitable people, and they had all sorts of craftsmen in their organization. They used to work in their shops by day, feast together and arrange entertainments by night. Ibn-i Batuta, the famous traveller, gives us considerable information about their work and organisation in his well-known book of travels. What is very interesting about the Ahis is that, although they were a powerful organization, they were never an element of anarchy, and they always helped the state to keep peace and order.

Economic life during the period of principalities was as good as it was during the Seljuk reign. The chief exports were: fine Turkish horses, silk, cotton and woollen fabrics, leather goods, rugs, carpets, tents, boots and copper utensils.

Turkish Culture During the Ottoman Period

The Osmanoğulları was one of the Beyliks (principalities) which emerged after the Mogul conquest of the Anatolian Seljuk State, an event which deprived the country of a strong central authority. During the Mogul-Seljuk conflict in the XIIIth century, an Oğuz tribe of considerable size from Central Asia entered Anatolia and requested the Seljuk state to grant it permission to settle somewhere. The Seljuks allowed this tribe to settle around the town of Söğüt

in the province of Eskişehir. Headed by Osman Bey, who gave the dynasty his name (the Osmanoğulları Dynasty or the Ottoman Dynasty), this Turkish tribe was continuously enlarging its territory at the expense of its neighbour, the Byzantine Empire, which had never recovered from the effects of the terrible blow it suffered at the Battle of Malazgirt in 1071. At Malazgirt the Byzantine Empire lost control of the whole of Anatolia, and in 1299 Osman Bey took Iznik (Nicaea) and made it his capital. After making Iznik their capital, the Osmanoğulları began to be known as the *Osmanlı Beyliği*. They took Bursa in 1326 and moved their capital there; they added Bolu to their territory in the same year. Capturing Izmit in the next few years, the Ottomans appeared at Beykoz near Istanbul. They captured Edirne in 1360 and moved their capital there. They took Sofia in 1387, and shortly after this, Salonica. Thus they became a power of some note in the east as well as in the west.

If Yıldırım Beyazıt, the first Ottoman ruler to receive the title of Sultan, had not been beaten by Tamurlane, a ruler of the same race, the fate of the Byzantine Empire would have been decided during his reign. The credit of conquering Constantinople, and putting an end to the corrupt and decadent Byzantine Empire, fell to Mehmed II, the young son of Murad II in 1453. He was 21 years old when he entered Constantinople at the head of his armies. Contrary to the claims of some unfriendly historians, Mehmed II treated the Byzantines fairly and humanly. He was particularly gentle towards scholars, men of religion, and the people of the city in general. The most reliable witness in this respect is Kritoulos, a Christian historian of the time. The conquest of Constantinople was only the first in the line of successive conquests made by Mehmed II. His achievements rightly merited the titles of «conqueror» and «emperor».

Yavuz Sultan Selim succeeded during the eight years of his reign (1512-1520) in conquering two large states, the Safevi in Iran and the Memluk Sultanate in Egypt, and was the first Ottoman Sultan to be given the title «caliph». The Caliph was the spiritual and temporal leader of all the Moslems in the world. The reign of Suleyman the Lawgiver (on account of the laws he had made) who was known by Europeans as Soliman the Magnificent (1520-1566), was the most brilliant period of the Ottoman Empire; it had dominion over the whole Balkan peninsula, part of Poland, southern Russia, the whole of Arabia including Syria, Egypt, the Sudan, Abyssinia,

and Morocco. The Empire had not lost an inch of territory until the Treaty of Karlofcha in 1699, after which it began a period of decline. The reason for this decline was the inability of the Ottomans to keep up with advances that were achieved in every field in Europe after the beginning of the Renaissance and Reformation movements; economic problems and endless revolts in Anatolia were some of the important reasons for this decline. The strong administrative mechanism of the earlier periods was no longer operating in Ottoman lands.

It was not possible for a people with such deep-rooted traditions, perfect organization, and a rich and old cultural heritage, to accept easily the institutions of a different civilization against which it had fought for centuries. Strong religious feelings which in time culminate in a form of fanaticism and the pride in a glorious past prevented the Ottomans from borrowing new ideas and institutions from Europe.

Defeated in the First World War together with her allies, the Ottoman Empire lost what she had left of her possessions in the above-mentioned lands and even Anatolia fell under enemy occupation.

Atatürk, who realized the gravity of the situation, led the Turkish nation against the armies of the occupying powers and expelled them from the country. On the 29th October 1923, Turkey became a republic, with Kemal Atatürk as its first elected president. During the 15 years that Atatürk lived after the foundation of the new Turkish Republic, he introduced many reforms into the country and laid the foundations of a strong democratic Turkey.

Organization and Planning in the Ottoman Empire

After accepting the Moslem faith the Turks continued to found many states and empires, of which the Ottoman Empire was the most lasting. Spread over three continents, and comparable to the Roman Empire both in size and in organization, the Ottoman Empire derived almost all its institutions and organization from Turkish traditions and Islamic rules, establishing and developing some herself. A Byzantine influence on Ottoman institutions is out of the question, because, as heirs of a highly developed civilization they did not feel any need to borrow anything from the Byzantines, who

were the representatives of a religion different from their own and whose culture was not superior to the Seljuk's; moreover, they were continuously at war with them.

The neatness and perfection of the records kept in connection with the system of Timar, Has, and Zeamet and the Wakf surprise us to-day. This state had such a perfect administrative organization that it knew the number of troops, their missions, and the amount of materials stocked even in a small fortress in a remote corner of the large empire. These particulars were kept up to date by surveys carried out at regular intervals. To-day we have over a thousand of these books of records kept for the purposes of taxation, birth and land registration. We understand from these records that there were about five million people living in Anatolia during the first half of the XVIth century. The Turks constituted a great majority of this population. We see a considerable increase in this population by the end of the century.

Equipped with firearms the Ottoman army introduced a new technique of fighting. Babur, the well-known Turkish emperor of India, writes in his diary that he conquered India by using the Ottoman technique of war. The Safevi army in Iran was reorganized after the Ottoman fashion. In fact, a single Ottoman rifleman in the ranks of the Indian and Persian armies had a great value.

One of the most original achievements of the Ottoman Empire was that it made a study of all territories under its control and issued laws suitable for each individual territory.

In the XVIth century the Ottoman Empire was the most powerful state in the world, and it was foremost in the field of civilization. The Ottoman Empire supported France and Poland against the pressure of the Holy Roman Empire. Sokullu Mehmed Pasha, one of the ablest of the Ottoman statesmen, was contemplating the connection of the Caspian Sea with the Black Sea by a canal, and the opening up of a new seaway by linking the lake of Iznik with the River Sakarya. Emir Mehmed, who lived during the reign of Murad III, attempted to lead a Turkish fleet from Suez to operate in the Indian ocean, and advised the government to open the Suez Canal. These show that while the Europeans were trying to find another sea route to India, the Turks were also busy in finding a shorter trade route there. It is a grave mistake on the part of some historians who claim that the Turks were unaware of the existence of another route to India.

During the reigns of Yavuz Sultan Selim and Suleyman the Magnificent, the Ottomans succeeded in pushing the frontiers of their empire beyond those of the Byzantine Empire, and the question of a trade route to India received their attention then. The expeditions of Piri Reis, a great Turkish sailor, and of others began about this time, and efforts were made to establish a trade link between the Ottoman Empire and India; but the alliance of Iran with Venice against Turkey forced her to turn her entire attention to her eastern and northern frontiers, with the result that the attempts in that direction were only half realized during the reigns of Selim II and Murad III, and had to be abandoned.

Apart from a general land survey and a census, a budget was made for the first time in the history of the the Empire during the reign of Suleyman the Magnificent. That Turkey carried out a general census on an imperial scale, and made a budget in the XVIth century, when these were never attempted by any other country, is interesting from the point of view of the history of public administration and finance.

Learning in The Ottoman Empire

In the beginning the Ottoman State drew the administrators, scholars and artists that it required from the principalities of Karaman and Germeyan. The Ottoman institutions for training military and civilian personnel were all founded by qualified people from these two principalities. The reason for this was that, the Osmanogulları were continuously at war with the Byzantines, while the above-mentioned two principalities enjoyed comparative peace and stability. The Karaman influence, which began as early as the time of Osman Bey with such men as Sheyh Edeb Ali, Dursun Fakih and Molla Rustem, brought about further developments.

The Medresehs. The first medreseh in the Ottoman Empire was founded in 1331 by Orhan Bey, son of Osman Bey, the founder of the Ottoman Empire. This was followed by other medresehs in Bursa, Edirne and other cities. When Constantinople became the capital of the Empire many medresehs were built there. Those built by Sultan Mehmed the Conqueror (1451-1481) and Suleyman the Magnificent (1520-1566) are particularly worth mentioning, because they

were the largest institutions of learning not only in Turkey, but throughout the Moslem world.

Institutions of primary, secondary and higher education were widespread in Turkey as early as the XVIth century. When a French traveller, who visited Turkey in that century, said that primary education was spread down to villages in Turkey, he was not exaggerating. Medresehs were founded even in the remotest parts of the country at that time. There were 50 medresehs among the works of Sinan, the greatest architect. This figure alone is enough to prove the falsity of the claim of a European traveller that there were only 89 medresehs in Turkey during the second half of the XVIth century.

At medresehs there were Turkish scholars teaching medicine, mathematics, Arabic, logic, Islamic law, Islamic philosophy, and rhetoric.

Libraries. Although most libraries were privately owned by sultans, emirs, and men of learning, there were at the same time public libraries in mosques and medreseh which were kept open to the public. Such a library was attached to the large medreseh by Sultan Mehmed the Conqueror. This library loaned books to professors and students. Choban Mustafa Pasha, an Ottoman vezir, had an institution built in Gebze in 1521, which included a mosque, a soup kitchen, a medreseh and a library. The library of the Eyub Mosque in Istanbul built by Sultan Mehmed the Conqueror, the library built in Bursa by Umur Bey, son of Timurtash Pasha, a nobleman of the time of Murad II, and those built by Gedik Ahmed Pasha, are some of the most important libraries built by Ottoman statesmen. In the XVIIIth century many public libraries were built particularly during the reign of Sultan Mahmud I (1730-1754). The private libraries of well-known Ottoman scholars and important statesmen were very rich. We know, for instance, that Molla Fenari, a famous scholar, had 10,000 volumes in his private library, and that Shehzade Korkut, son of Beyazid II, had a large library carried by a caravan. Mueyyid Zade Abdurrahman Efendi, famous scholar of the age of Bayezid and Yavuz Sultan Selim, had a private library of 7,000 volumes, most of which were rare manuscripts.

Men of Learning. When the building of the first Ottoman medreseh was completed in Iznik, Kayserili Davud (d. 1335) was appointed professor to teach there. He was a man well versed in both physical and spiritual sciences. A commentary he wrote on Muhyiddin İbnü-

l-Arabi's *Fusus-ül-Hikem* played an important role in spreading mysticism in the Ottoman Empire. This work was known in India and Iran and it was published in the latter country during the last century.

Iznik continued to be a centre of learning during the XVth century. One of the greatest scholars trained in the medreseh of Iznik was Shemsuddin Muhammed Molla Fenari (1350-1431). Originally from Karaman, Molla Fenari enjoyed wide fame in Syria and Egypt. He occupies an exceptional position in the history of Ottoman learning on account of his establishing a school of learning. Before he founded such a school, Turkish scholars used to go to Syria, Iran and Egypt for their training. Through the efforts of Molla Fenari, many Turkish scholars were able to receive a sound training in Turkey. Some of these scholars went to teach in other Moslem countries where they were much admired. The most famous of these scholars, who were all of Turkish origin, were Hızır Bey (d. 1459), Sinan Pasha (son of Hızır Bey, d. 1486), Hodja Zade Musluhiddin (d. 1488), a philosopher, Molla Husrev (d. 1480) who wrote works on Islamic law which became classics in the field and is considered the Ebu Hanife of his time, and Molla Lutfi (d. 1495), a famous writer and mathematician, known for his works on logic, theology, mathematics and cosmography. His dismissal from service by the Sultan was protested against by all the scholars of Istanbul, and the Sultan had to restore him to his position. Zembilli Ali Efendi (d. 1525), a scholar of the time of Yavuz Sultan Selim, was not only a great authority on law, but he was also an adviser to the Sultan. Kemal Pasha Zade (d. 1536) a pupil of Molla Lutfi, was working in the fields of Islamic Law, History and Philosophy, and he wrote about 1100 volumes on these subjects. To these we should also add such important XVIth century men of learning as Tashkoprulu Zade (d. 1560), who is known for his biographies of Ottoman scholars, and works on the classification of the subjects of various sciences, Ispartalı Kınalı Zade (d. 1581), who wrote the first work on ethics in Turkish, and Ebussud Efendi (d. 1574), a great theologian whose interpretation of the Koran is still read in Egypt.

Another great Ottoman scholar was Katip Chelebi (d. 1685), who wrote some very original works, the most important of which is a bibliography of 14,400 important manuscripts. This is by far the most important work produced in the Moslem world.

Historical Scholarship. The first historical work to be written in Turkey in the Turkish language was written in the middle of the XIV century. The oldest Turkish work on Ottoman history was written by Ahmedi, a poet, in the beginning of the XVth century. Ottoman historical scholarship was developed also considerably during the second half of the same century, and many works dealing with Ottoman history were written, the most important of these being the works of Neshri and Ashık Pasha Zade. During the XVIth century Ottoman historical scholarship was further developed and many new works were written. The most important of these was Kelam Pasha Zade's Ottoman History, of which only one volume has yet been printed. Kemal Pasha Zade was the first Turkish historian to realize the importance of Anatolia as the home country of the Turks. A work by Ali written about this time is important from the point of view of the history of science and culture. Ahmed Efendi, the chief Astrologer (d. 1702), and Mustafa Naima Efendi (d. 1716) were great historians. Ahmed Efendi was the writer of a general history based on original sources, which is still held as an important work by historians in the east as well as in the west. Naima Efendi's work on Ottoman history is important not only from the point of view of historical scholarship, but also as one of the finest works of Turkish literature.

Geography. Original works on geography were also produced in the Ottoman Empire during the XVIth century when Ottoman culture had reached its highest level in every field. The most important geographical work was by Piri Reis (d. 1555), a well-known Turkish admiral, on marine geography. Piri Reis was the commander of the Turkish fleet blockading the harbour of Alexandria at the time of the invasion of Egypt by Yavuz Sultan Selim. An important aspect of the work of Piri Reis was that it was based on personal observations. Experts are of the opinion that the maps drawn by Piri Reis were superior to those made in Europe at the time, in both content and technique. This great Turkish geographer has also a map of America. The second work of geography which also deals with the seas is by Seydi Ali another Turkish admiral. This work contains valuable information on the Indian ocean and the Red Sea. *Jihannuma* of Katip Chelebi is also a work dealing with geographical subjects. It contains very valuable information on the geography of Anatolia, Syria, Iraq, Egypt and Turkey in Europe. Evliya Chelebi (d. 1682) wrote an account of his travels in Asia, Africa and Europe in 12 volumes. His

detailed description of the lands he visited and the peculiarities of peoples living in them are of great interest.

Medicine. The first Ottoman hospital was built in Bursa by Yıldırım Bayezid (1389-1402). After building his famous university in Istanbul Mehmed II also built a hospital in 1470. The staff of this hospital consisted of two doctors, a surgeon, an eye specialist, a pharmacist and a number of assistants. The next important hospital in the Empire was built in Edirne by Bayezid II, son of Mehmed II. There were three doctors, two surgeons and two eye specialists in this hospital where, according to Evliya Chelebi, some patients were even treated by music. There was also a medical school next to this hospital.

Three hospitals were built in Istanbul during the reign of Sultan Süleyman the Magnificent, one in 1539 by Hürrem Sultan, wife of Süleyman, and the others in 1554 and 1555 by Ayshe Sultan, his mother, and by Süleyman himself respectively. In the hospital built by Süleyman there were three doctors, two eye specialists, two surgeons, a pharmacist and two assistant pharmacists. The Sultan also built a medical school in Istanbul. Examination and treatment of patients were free in these hospitals, which were supported by rich foundations established by their benefactors.

Karamanlı Hadji Pasha (d. 1417) was a man directly engaged in medical studies and in writing medical books. He was the chief doctor of the Kalavun Hospital in Egypt; later he returned to Turkey and entered the service of Aydınoğlu İsa Bey and worked as a doctor at Ephesus and Birgi. His works were partly based on medical knowledge derived from ancient authors and partly on his personal observations and experience as a doctor.

The leading doctors of the time of Mehmed II were Sabunjuoğlu Şerafeddin of Amasya and Altuni Zade. The latter is believed to have been first doctor in Turkey to treat obstruction of the urinary tract by the insertion of a catheter.

Mathematical Sciences. Interest in positive science grew less and less in the Moslem world after the XIth century, and within a short time, there were no scientists left in such Moslem countries as Egypt, Syria and Iraq. The main field of study in these countries was confined to such subjects as Hadith (Mohammed's traditions), interpretation of the Koran. Islamic jurisprudence, rhetoric and history. The indifference of Syrian and Egyptian men of learning towards

positive sciences was often despised by Turkish men of learning. Work in the field of positive sciences in Iran and Turkestan came to a stop in the XVIth century, only to be resumed later. Mathematics and cosmography were included in the first part of the curriculum of the Ottoman medresehs. Mathematics is known to have been taught at the large medresehs founded by Mehmed II and Suleyman the Magnificent, which correspond to our modern universities. The first Ottoman mathematician and astronomer is Kadı Zade (1337-1412). When he went to Turkestan to carry his studies further, his work was admired by Uluğ Bey, and he was appointed director to the Samarkand Observatory and Medreseh. Ali Kushchu, (d. 1474) one of his students, came to Istanbul and opened the first school of mathematics there. This school trained many mathematicians, the most important of whom was Miri Chelebi (d. 1525), the author of many books on the subject.

The first Ottoman observatory was founded in 1575, and Takuyuddin Muhammed, a member of a Turkish Memluk family, was appointed its director. This observatory was short-lived as it was destroyed in 1580 by some religious fanatics. Takuyuddin Muhammed wrote numerous works on mathematics and astronomy.

Ottoman Literature. In the imperial bureaucracy of the XVIth century Turkish was the official language. From that century on, diplomatic letters to the Shahs of Iran, rulers of India, Governors of Mecca, and the Kings of Turkestan were all written in Turkish. It is significant that the replies received from the kings of Turkestan were invariably in Persian.

Süleyman Chelebi, the author of the *Mevlid* (a story in verse of the birth of the Prophet), may be mentioned as an exception. Written in 1409 this poem, which celebrates the birth of the Prophet, became, on account of the sincerity of its sentiments and the purity of its inspiration, a masterpiece of Turkish literature, and a work which has occupied a unique place in the religious life of our people. The *Mevlid* is a national contribution of Turkey to Islam. In fact it can be said that it is, for the Turks, the most important religious book after the Koran. *Muhammediye* written by Yazıcıoğlu Selahaddin in 1499 has occupied an important place not only in the religious life of the Turkish people in Anatolia, but also of the Turks of Crimea and Kazan.

The second half of the XVth century is a brilliant epoch not only in the field of science, but also in the fields of literature and art.

Mehmed II and his son Bayezid II and most of the Ottoman statesmen of the times were well educated men who were responsible for the opening of this brilliant period. Istanbul was full of poets among whom we may mention Ahmed Pasha (d. 1497) and Nejati (d. 1508) as the oldest poets of classical Turkish poetry. The finest prose writer of the age was Sinan Pasha (d. 1486) who was a famous scholar.

The XVIth century was the golden age of Turkish classical literature. Fuzuli (d. 1555), the greatest Turkish poet, and Baki (d. 1600), whose service in the development of Ottoman poetry was considerable, lived in that century. The death of Soliman the Magnificent was a grievous blow to him, and he mourned his friend and benefactor in a famous elegy which is regarded as his finest work.

The works of Fuzuli, who was a great poetic genius, were read and enjoyed throughout the Turkish world. As for Baki, he was the greatest poet of the century after Fuzuli; his fame had reached Iran and India in his lifetime.

Nef'i and Nedim were the greatest masters of classical Turkish poetry during the XVIIth and XVIIIth centuries respectively. Nedim has enjoyed popularity right down to our times.

Music. Classical Islamic music was the joint product of the music of Greece, Iran and India. This music was further developed in the courts of Turkish rulers of Iran (particularly those of Jelayirs) and of the Timur dynasty, and the direct role of the Turks in this development was noteworthy.

Ottoman music was based on musical traditions of the Seljuks on one side, and on the musical principles developed in the Turkish court during the XIVth and XVth centuries.

Ottoman music began to show signs of development during the reign of Murad II, who was deeply interested in music and poetry. In his court there were poets reciting the stories of the Dede Korkut Tales, composers, musicians and players. Many works on music were written both during the reign of this emperor and during the reign of Mehmed II, his son, and Bayezid II.

The best musicians in those days were mostly from Turkey. From the XVIth century on, Turkish music was further developed, and it finally reached its pinnacle during the XVIIIth and XIXth centuries. Some of the emperors, Mahmud I, and Selim III in particular, were composers themselves.

Itri was the greatest Turkish composer not only of the XVIIIth century but perhaps of all Turkish music. Most of his compositions, which had reached thousands, have been lost. A native of Istanbul and of the Mevlevi sect of dervishes, Itri (1630-1711) was a talented singer too. He contributed to almost every field of Turkish music, but his real contribution was in the field of Mevlevi and Ashık forms. The *Tekbir*, which is still sung in mosques during service, is one of his most serious compositions. The limited number of his extant works consist of Hisar, Huseyni, Rast, Peshrevs, Semais, Hymns and songs.

Himmat Zade and Dede Efendi were also among notable composers of the century.

Thus, a graceful, technically perfect and delicate Turkish music was created, which deeply influenced the music of other Moslem countries. There were three branches of art in which the Turks made contributions: Architecture, music and calligraphy.

Galligraphy. Sheyh Hamdullah of Amasya (d. 1520) was the founder of the Turkish school of calligraphy, and he trained seven famous Turkish calligraphists in his life. There were other great calligraphists in Turkey in later centuries.

Social Institutions

Social assistance and the establishment of social institutions were among the ancient national traditions of the Turkish people. In the Orhun Inscriptions the Turkish king expresses his pride in having made the Turkish nation prosperous. Ancient Turkish kings used to give big public feasts called "toy". The Seljuks also gave feasts. Feeding and clothing the poor were regarded as very virtuous acts. This is clearly expressed in our national legends.

Busbeck, who was the Austrian ambassador to the Porte during the reign of Suleyman the Magnificent, was greatly impressed by the Ottoman spirit of charity. On his way to Amasya to visit the Sultan in the summer of 1584, he saw that Turkish peasants had brought to the roadside water cooled with snow and gave it freely to thirty travellers.

As in the period of the Seljuks and of the principalities, the main social institutions of the Ottoman period were mosques, soup-kitchens, caravanserais, hospitals, bridges and fountains.

Very large numbers of mosques were built during the Ottoman period, mostly in such big cities as Istanbul, Edirne and Bursa.

Soup-kitchens were institutions founded for the purpose of giving free meals to students, travellers and to the poor. There were soup-kitchens all over Turkey, particularly during the period of the principalities. The Ottomans kept up this tradition. We know, for instance, that Orhan Bey distributed food to people with his own hands on the occasion of the opening of a soup-kitchen at Iznik. Other Ottoman rulers also had soup-kitchens built in various parts of the country. Many soup-kitchens were built during the XVIth century by members of the royal family and statesmen of high rank, and supported by generously provided foundations. By way of example, we can mention the soup-kitchens built in Istanbul by Mehmed II; in Amasya, Edirne and Istanbul by Bayezid II; in Istanbul, Konya, Karapınar and Damascus by Suleyman the Magnificent; in Üsküdar by Mihrimah Sultan, daughter of Suleyman; in Manisa by Ayshe Sultan, mother of Suleyman. Among those built by high-ranking statesmen, we can mention the soup-kitchens built by Gedik Ahmed Pasha in Gebze, and in Bosnia by Sokullu Mehmed Pasha.

In towns and villages wealthy people used to have guest rooms to give free board and lodging to travellers. This custom has come down to our times.

The huge caravanserais built in Anatolia and in Thrace served the purpose of providing a safe and comfortable journey for travellers. On the road to Mecca there were numerous caravanserais which facilitated the journeys of pilgrims.

Baths which began to be built from the Seljuk period onward increased in number during the period of the principalities and spread over all the empire. The fame of the Turkish bath passed beyond national boundaries and reached the remotest corners of Europe.

All these institutions are of great interest to the historian of art and architecture and will be dealt with in that context in the next chapter.

Turkish Architecture

As we have already seen, the Turks, forced by geographical and political factors, had spread over very widely scattered regions of the

world. The earliest Turkish influence on Islamic architecture was through Samarra. The Turks of Gazne carried this influence to India. Turkish architecture came to Iran, Anatolia and Syria through the Seljuk domination of these lands. By the expansion of the Turkish Empire, Turkish architecture was carried into farther regions such as the Sudan, the whole of North Africa and Central Europe.

Differences in historical and natural conditions led to the emergence of new architectural forms with local characteristics. Each of these regional forms was subject to further modifications under the changing political and social conditions of the region. Of these, Anatolian Turkish architecture is the most important from the point of view of its purity, continuity and diversity of works. It was only in Anatolia that Turkish architecture was free from outside influence and thus was able to achieve a vigorous development which continued until the XVIIIth century.

The history of Turkish architecture before the Gazne is still obscure, but the Gazne works which have survived show the character of a highly developed and original architecture. Although the architectural form of *ivan* occurs in ancient Persian architecture, the application of four *ivans* as an architectural form was devised by the Gazne. The Palace of Leshker-i Bazar (XIth century) in the neighbourhood of the town of Bust in Afganistan is the only known specimen of this order.

The Seljuks applied this form in the construction of their mosques and medresehs. Most of the innumerable works of religious architecture such as medresehs, mosques and turbehs were either destroyed during the Mogul invasion or ruined by weathering. Of works of civilian architecture almost no specimen has reached us.

In Anatolia the Turks were faced with historical and natural conditions different from what they had been used to in Horasan and Iran. Here they found an abundant supply of building stone, countless ruins, accomplished stone masons; so in Anatolia the Turks used brick only as a secondary material in their buildings. The rich variety of decorative forms executed in brick in Horasan and Iran were used in minarets and in the interior of domes of Anatolian buildings leaving the façades for stone work. Apart from this there was no deviation from the dominant plan, conceptions and spirit. The Seljuks who found their new home in a state of ruin succeeded in building it up in a short time, in spite of the-

endless wars they had to wage with the Byzantines on the one hand and with the Crusaders on the other. Of the works of architecture belonging to this period, we only have their names.

The effects of the Mogul invasion, which destroyed the political, social and economic order of the country, also had a direct and indirect influence on architecture.

The influence of artists who migrated to Anatolia from Central Asia and their contact with Turkish tribes settled on the shores of the Aegean, where classical ruins abounded, led to some experiments with new architectural and decorative forms. Thus, during the second half of the XIIIth century the old Anatolian Seljuk style was partly replaced by several new styles. With the emergence of principalities, of which there were over twenty, new styles and centres of art were established.

Confusion is a common feature of all periods of transition and for about a century and a half, Anatolian architectural forms were many and varied; but at the end of that period all the original styles were coalesced and represented the imperial style.

The development of Turkish architecture in Anatolia can be examined under three headings:

Religious Architecture

Mosques. Four-ivan mosques built by the Seljuks of Horasan have come down to our times without undergoing any structural changes. The most important of these are the Friday mosques in the cities of Ispahan, Zevare and Ardistan.

As far as the interior plan is concerned, there is not much difference between the Alaeddin Mosque in Konya (1220) and the Ispahan Mosque (1121). Both buildings are multicolumnar and both have domes in front of their altars. The difference between the two buildings is that in the former the transition from a square to a polygonal base for a dome is made by squinches on a plan formed by triangles. However, in many important Seljuk buildings such as Divriği Ulu Jami (1228), Niğde Alaeddin Jami (1224), Malatya Ulu Jami (1247), there are always squinches in association with a square plan and a dome. The Malatya Ulu Jami, with brick squinches and ivan, is very like Mesjid-i Juma in Ispahan. The Seljuks did

not build mosques with courtyards consisting of four ivans in Anatolia; most of their mosques are without a courtyard. The courtyards seen in several buildings such as the Sinop Ulu Jami, and the Alaeddin Jami in Konya, are without porticoes and surrounded by walls.

During the period of the principalities some development in mosque building took place. These were a balancing of the open and closed parts, a harmony between the interior and exterior, the addition of a courtyard to the main mosque with a portico, the addition of a narthex to the mosque, and various attempts at the solution of the problem of space. These innovations can be seen in the works of Saruhan (1300-1400), Aydın (1300-1425), and the Osmanoğulları principalities, which were all located in western Anatolia. The Karaman (1256-1485) and Eshrefoğulları carried on the Seljuk style. These characteristics are also seen in medreseh construction. The following are examples of mosques in which the problem of space was tackled: the Ulu Jami at Manisa (1366), built by Ishak Chelebi during the reign of Saruhanoğulları, the Orhan Bey Jami (1339) built in Bursa by the Osmanoğulları, and the Isa Bey Jami (1375) built at Seljuk by Isa Bey of the Aydınoğulları dynasty. The earliest form of narthex is seen in an unpretentious mosque in Ermenek, the Ulu Jami (1320) built during the reign of the Karamanoğulları. Although this early experiment was clumsy, we see a successful application of the narthex in Ulu Jami (1312) built at Birgi by the Aydınoğulları.

The religious buildings of the Osmanoğulları, the smallest of the principalities, were similar in style to those of other principalities from the end of the XIIIth century to 1437, the year when the Uch Sherefeli Jami was begun in Edirne. The earliest notable building in this period is the Orhan Bey Mosque (1339), built in what is called the Bursa style, which found its finest expression in the Yeshil Jami (Green Mosque; 1341-1421) in Bursa.

Although the Orhan Bey Mosque and other similar mosques were built in the form of a reversed T (⌋), the two consecutive domes failed to achieve a unity of space on account of the arch lying in between them but they nevertheless show that a new solution was being sought to solve the problem of space. The earliest form of narthex in its classical style is found in this mosque.

Parallel to these experiments to solve the problem of space, we see in the Ulu Jami in Bursa the Seljuk attempt at solving the same problem by covering the flat ceiling with many little domes. After

the spatial experiments in the Bursa mosques, we see the merging of the two domes in a larger single dome of 24.10 metres in diameter in the Uch Sherefeli Mosque in Edirne, and the reduction of twenty domes resting on twelve pillars in the Ulu Jami, Bursa, to the nine domes resting on four pillars in the Eski Jami (1413) in Edirne. Thus, the development of the Bursa Ulu Jami type reached its final stage.

The small and modest buildings which constituted the great majority in the period of the principalities served as prototypes for later major buildings. Various forms of the classical Ottoman mosques had all been explored and in a variety of buildings. Therefore without a good knowledge of the architecture of the period of the principalities it is not possible to understand the development of classical Ottoman architecture or to determine its origin. The claims that the Ottomans took St. Sophia as their model are not based on sound foundations.

In Ottoman architecture the Uch Sherefeli Mosque (1437-1447) is of great importance because it defines the end of all architectural research during the period of the principalities, and marks the beginning of the architecture of the Empire period. The huge dome of this mosque originated from the idea of merging the two adjoining domes into one. Again, the half dome at the Mecca side of the first Fatih (Sultan Mehmed the Conqueror) Mosque (1463-1471) to be built after the capture of Istanbul took its origin from the attempt to enlarge the dome of the Uch Sherefeli Mosque even more.

The building of the present Fatih Mosque was begun during the reign of Mustafa III to replace the one that was destroyed in an earthquake in 1765 and was opened for service in 1771. The diameter of the dome of the Fatih mosque was 25.75 metres. Thus the dome of the Uch Sherefeli Mosque was enlarged and an unprecedented interior volume was achieved at the same time by the addition of a half dome on the Mecca side of the mosque.

On the one hand the attempt to achieve a wide, high and compact space was leading Turkish architects to new discoveries, but, on the other, conventional forms were still being followed and in Istanbul one-domed mosques were being such as Mahmud Ali Pasha (1485) and Firuz Aga (1491) or mosques after the style of the former Fatih Mosque such as Atik Pasha Mosque (1497), with a half dome attached to the big dome.

After the addition of a half dome to the Mecca side of the mosque, both the rules of symmetry and the resolution to attain a wider space

made it natural and even imperative to add another half dome to the opposite side of the mosque. It was this idea that gave rise to the two half domes of the Beyazid Mosque (1505).

The honour of making a new volume experiment with three half domes, by eliminating the half dome opposite the Mecca side of the Beyazid Mosque and by adding a half dome to the right and the left of the mosque, fell to the greatest architect of the time, Koca Sinan. The Mihrimah Mosque (1547), opposite the Scutari landing-stage in Istanbul, is the most remarkable example of this experiment. After this comes the Shahzade Mosque with its four half-domes, finished a year later in 1548.

Not only was there a tendency to increase the spherical space in classical Turkish domes, but also the height of the dome was increased. For example, the fact that the central dome of the Suleymaniye Mosque (1557), one of the great works of Sinan, was not only made wider but was also 48 metres high from the floor, shows the significance attached to interior space. The half domes which had a flattened appearance in the Beyazid Mosque now acquired a more spherical character by the heightening of the central dome in the Suleymaniye Mosque. In order to attain an easy ascent for the eye from the floor to the crescent of the big central dome, the structure was given a pyramidal rise which was achieved by an arrangement of gradations on various levels and schemes of the small domes covering the side naves, of the tromps and of the octagonal supporting towers that continued to the outside of the bases of the square at the centre. In classical mosques the exterior pyramidal form developed with the enlarging interior space. In order to preserve the harmony in this pyramidal form and to support the weight of the dome, exterior galleries acting as supports and interior side surfaces were added to the wings.

The interplay of light and shade makes these combinations more effective and the slender and graceful forms of the minarets amongst the spherical lines of the domes give a feeling of lightness to the whole of the structure.

The problem of openness and closeness which was considered in the case of the Uch Sherefi Mosque or the Beyazid Mosque was solved satisfactorily in the Suleymaniye Mosque. The row of windows on the inner surfaces of the arch curves in the east and west parts of the Suleymaniye were made not only to provide light for the interior of

the mosque but also for two other reasons. One of these reasons was, by opposing the curvature of the half domes with two wide arches to decrease the feeling of monotony which might be caused by the spherical lines, and the other reason was to create a rhythm of openness and closeness on the surface surrounded by these arches.

All these aesthetic issues were achieved by bringing to perfection the various experiments of the period of principalities. To compare the façade of the Suleymaniye, for instance, to the façade of the Yeshil Mosque in Bursa is sufficient to show us the richness of the results attained.

The artistic monument which supplies the most satisfactory solution of the aesthetic and technical problems we have been discussing is, no doubt, the Selimiye Mosque in Edirne which was the masterpiece of Sinan's mature period. Sinan reached this result gradually, and by eliminating what he thought was faulty in the combinations he had experimented on, attained a faultless harmony in this mosque, the construction of which was finished in 1575. Sinan went back to the four half-dome composition in the Shehzade Mosque and then by doing away with the plan of the half-domes in the Selimiye, placed the dome (31.30 metres in diameter) on eight supports, and by placing tromps on the corners under the dome tambour of the octagonal scheme thus obtained, he was able to introduce tympani whose tables were decorated by rows of windows. These innovations in structural design show how Sinan developed and brought to perfection the architectural form of the mosque.

Medresehs. There are no medresehs before the Great Seljuks. The first religious schools with the title of "medreseh" were built in Horasan and Nishabur in the first half of the XIth century. These institutions were established in Iran to teach the Sunni sects with a view to preventing the spread of the Shii sect and were taken as models not only within the boundaries of the Seljuk Empire but also in all Islamic countries. Unfortunately none of these buildings, in which the four-ivan scheme was applied, have survived to the present day.

In the religious architecture of the Anatolian Seljuks, medresehs are superior to mosques because of their finer planning, the greater width of their portals and their superb decorations. Some very beautiful Seljuk medresehs built in east and central Anatolia have survived to this day, although in a somewhat ruined state. Most of these are arranged on a courtyard and the four-ivan scheme. The

Chifte Minareli (The Twin Minarets) in Erzurum (1253) and the Gök Medrese in Sivas (1271) can be regarded among the best examples of medresehs for their size, workmanship and the richness of their ornaments.

Together with the medresehs with courtyards, some domed medresehs were built on a smaller scale, and these domed medresehs evolved from covering with a dome the courtyards which were getting smaller and also becoming square. Around this closed-in courtyard, which had a fountain in the middle, were students' cells and an ivan opposite the entrance. This ivan was used both as a classroom and as a place where the «namaz» service could be performed. The best examples of this type are the Karatay and Ince Minareli medresehs in Konya. The Karatay Medreseh is of special importance owing to the fine tile decoration on its dome and walls.

There are no important changes in medreseh planning during the period of principalities. Generally speaking, the courtyard becomes smaller and the side ivans give way to cells. In medresehs belonging to the Karamanoğulları and Eshrefoğulları principalities the portals are larger and the decoration becomes baroque, as opposed to the simplification of the medresehs in the west of Anatolia.

The Ottomans also built many medresehs in Iznik, Bursa and other important towns in their principality period. Among those medresehs that have survived the Yıldırım (1399), Yeshil (1415) and the Muradiye (1426) medresehs in Bursa and Chelebi Sultan Medreseh (1414) in Merzifon are especially worth considering. The first three medresehs reflect the same plan omitting the differences in measurements. This plan differs from that of the Seljuks by the elimination of side ivans, making a window for each student's cell and by the addition to the Mecca side of a domed classroom which bulged considerably from the main structure. We can also mention as differences the simplification of the portals and the use of stone and brick together in these one-storey buildings. The medreseh built by Chelebi Mehmed in Merzifon (1414) is a little different from these three we have already considered. The four-ivans in Seljuk medresehs were built in this medreseh to protrude on the outside and to have a dome each. The side ivans became big rooms also covered with a dome.

The Saatli Medreseh built by Murad II in Edirne differs from those in the group of the Yıldırım Medreseh in its having a domed ivan next to the domed classroom.

Besides these medresehs there is a two-storey building constructed by Murad I at Chekirge in Bursa (1363) and this is unique for it is an intermingling of a closed-in medreseh and a mosque. The ground floor is a mosque in the Bursa style and the first floor is a medreseh with its students' cells opening into three corridors in three directions.

After the capture of Istanbul Turkish architecture begins to develop and produces its finest plans in the mosque architecture of the XVIth century. While much progress and many innovations in the architectural forms of mosques took place during the Empire Period, the architectural form of the medreseh remained static and continued to follow the Seljuk medreseh pattern, with only some small alterations and attempts at simplification, as we see in the medresehs in Bursa. This was due to the fact that the architectural form of the medreseh had already been fully developed earlier.

Very few of the medresehs built by Fatih remain, but the Peyler and the Saatli medresehs in Edirne and those included in the Fatih Mosque group are worth mentioning.

In the towns of Roumeli and in many Anatolian towns medresehs were sometimes built free-standing, sometimes as part of a mosque or as part of a mosque complex. All repeat the same basic plan with slight differences in measurement and other minor details. The Kapı Ağası Medreseh in Amasya (1488) built by Huseyin b. Abdulmuin, a child of an official of the Palace, is unlike other Ottoman medresehs in that it has an octagonal plan.

Turbeks. In the religious architecture of the Turks turbeks have an important place. A turbeh is a mausoleum and is often called a «kümbet». Turbeks were built for Sultans, Emirs and for some great personages. In Turan in the west of Iran and in Anatolia some exquisite examples of turbeks remain almost intact.

At the time of Horasan Seljuks turbeks were of three kinds: Square, like the Kumbet-i Surkh in Meraga (1148), polygonal, like the Mu'mine Hatun turbek at Nahcivan (1186), and round, like the Se Kumbet (1184) in the town of Urmiye. These turbeks were made of bricks and were covered on the inside with a dome and on the outside with a pyramidal or conical pointed roof, depending on the shape of the building, and most of them were two storied. The upper floor which was reached by steps was a "meschit" and most of these contained an altar. The lower part of the turbeh was reached by a flight of steps and was the place of burial. The outer surfaces of the Great

Seljuk turbehs were ornamented by various brick patterns and by turquoise-coloured bricks.

The turbehs of the Anatolian Seljuks were usually made of stone and were eight or twelve-sided. The round type which appeared after the Mogul invasion was not much in favour. The Doner Kumbet (1276) in Kayseri is an example of the polygonal type and the Ulu Kumbet (1273) in Ahlat may be given as an example of the round type of turbeh. Brick turbehs, most of which are in Konya, are few in number and are not among the best of their type.

In addition to these kumbets, which remind us of the old Turkish tents and which continue a well-rooted architectural tradition, these are turbehs made in the shape of ivans. The most beautiful and the best preserved of these is the Gomechane (Gomech Hatun Turbeh), dated to the second half of the XIIIth century, in the Musalla graveyard in Konya. If we add to these types of turbehs the Mama Hatun Turbeh in Tercan, which is of a monumental character and is in the nature of a group of graves, we can visualise the turbeh types of the Anatolian Seljuks as a whole.

During the period of the principalities both square and polygonal turbehs were built, for example, the Melik Gazi Turbeh (early XIVth century) in the village of Turbah in the Konya region, and the Nureddin ibn Sentimur (1314) in Tokat.

At the time of the Ottoman Principality some square-bodied turbehs were built, i. e. the Murad II Turbeh in Bursa, and the square was even doubled as in the case of the Chandarlı Hayreddin Pasha in Iznik, but the masterpiece of the turbehs of this period is the octagonal Yeshil Turbeh (1421) in Bursa.

At the time of the principalities some constructional and ornamental innovations were introduced. Among these innovations those worth mentioning are the use of the spherical dome instead of the pointed dome, the raising of the drum, flooding the interior with light coming through the windows in the drum and in the walls and the simplification of the portals. The covering of the inside of the Yeshil Turbeh with tiles was a model for the later Ottoman Turbehs.

After the capture of the city, octagonal turbehs were built in Istanbul, many after the style of the Yeshil Turbeh in Bursa. Among the most beautiful of these are the turbehs of Mahmud Pasha, the grand vizier of Mehmed II, of Husrev Pasha, a vizier to Suleyman the Magnificent, and of Shehzade Mehmed. These turbehs,

compared to those of the times of the Seljuks and of the principalities, show remarkable progress, with their mouldings separating each of the eight sides from one another, their pointed arched double or quadruple windows with pointed arches as in the case of the Shehzade Mehmed's Turbeh, a work of Sinan. These windows took the form of panels and were placed on top of one another, on all sides of the building. With their wellproportioned domes and clean workmanship in their cut stones, these turbehs are examples of a highly developed architectural form.

Civil Architecture

We have already mentioned that none of the civil architectural works of the Horasan Seljuks have survived to this day.

At the time of the Anatolian Seljuks, who reached a high level of civilization, many big cities grew up and many kiosks, palaces and caravanserais were built.

Kiosks and Palaces. Perhaps because they were built of mud bricks, none of the Seljuk houses have survived to this day. So far, no palaces have lasted to our times either. Only the names of three palaces of Alaeddin Keykubat (1219-1236) are mentioned in Seljuk documents. These are the Kubadiye, his summer palace near Kayseri, the Kubadabad, on the southwest shore of the lake of Beyshehir, and the winter palace Alaiyye, on the Mediterranean near Antalya. Recent research and excavations have led to the discovery of the sites of the Kubadiye and Kubadabad palaces and work has been started on the remains of the eighteen buildings belonging to the group of the Kubadabad palace. The plans of both the larger and the smaller residences at Kubadabad show that they were rectilinear in shape and contained rooms opening on to courtyards.

As for the palace which Kılıch Arslan II (1156-1192) had built on the north side of Alaeddin Hill in Konya, we do not know anything about its form. There remains to-day only a wall from the east side of the portion called the Alaeddin Kiosk. This name was given because it was repaired by Alaeddin Keykubat. But from the old pictures of the Kiosk we have an idea of its first shape. It was built on a high base and was supported on stalactite consoles. We understand from these jutting out consoles that the kiosk was surrounded by a

balcony on all sides and windows with pointed arches opened on to this balcony.

We do not know anything about the kiosks and palaces of the principalities. Nothing remains from the "Sarayı Atik", built in Edirne by the Ottomans between the years 1365-1368. There are some remnants of the Sarayı Cedid-i Amire, which Sultan Murad II started to have built in the north of Edirne and to the west of the river Tunca. Upon the death of the Sultan, the palace was completed by Sultan Mehmed the Conqueror and other sultans enlarged it.

The architecture of the Empire Period manifested its high quality in palace building. When Sultan Mehmed II captured Istanbul he ordered a palace to be built in place of the Byzantium senate-house, where the university is to-day. This palace, which was completed in 1454, was burnt at the time of Suleyman the Magnificent. We have no idea of its plan. Perhaps because Mehmed the Conqueror had not liked this palace the building of the Topkapı Palace was started. For this reason the first palace was called "Eski Saray" (The Old Palace), and the second one was called "Yeni Saray (The New Palace). "Topkapı Palace" is a name which was given later and comes from a former Topkapı Palace, which was situated behind the present building by that name. This palace was built by Sultan Ahmed III and was fortified by cannons. It was burnt in 1863, at the time of Sultan Abdulaziz, but its name was given to the New Palace and since then the New Palace has been called by the name of the Topkapı Palace. The Yeni Saray (New Palace) is not a single building, but a group of apartments and kiosks. In this group first the kiosks were built. Of these the Chinili Köşk (The Tiled Kiosk; 1472) has the foremost place because of its antiquity, originality of its planning and the beauty of its tiles.

The Inns and the Caravanserais. Caravanserais were built at the time of the Anatolian Seljuks. Although partly in ruin, some of them still retain their former shapes and are among the most important achievements of Seljuk civil architecture.

Built along the highways connecting the large towns in Anatolia from east to west and from north to south, the Seljuk caravanserais are many in number and of great size. The distance between each of these establishments was calculated on the basis of nine hours travel by camel or about 18 miles, the equivalent of a day's journey. They are placed at a distance of 40 kms. from each other and are an

indication of the liveliness of commercial and economic activities during the XIIth and the first half of the XIIIth centuries. As they were wakfs built to serve the needs of the public, they also indicate the high level of the Seljuk civilization in these centuries.

These foundations were organised and run by a staff of physicians, veterinary surgeons, shoe-makers, blacksmiths, cooks, guards, administrators and all other servants, giving a free and full service to all travellers without discrimination and receiving a great amount of income from the Wakf Centre.

These Seljuk caravanserais give some indication of their wealth and the social assistance they afforded to travellers; and they have another characteristic - architecturally they were works of art. Even in the most modestly built caravanserais a sense of grace is noticeable from the planning, arranging and decorating points of view. The large caravanserais are masterpieces, as were the Seljuk medresehs which are finer than the mosques built in the same period. One example, the Sultan Han Caravanserai built on the Konya-Aksaray highway in 1229, is sufficient to demonstrate this fact. The Seljuk architects concentrated their creative efforts on the caravanserais. In all the caravanserai types, whether it is the courtyard type like the Evdir Han caravanserai (1219) on the highway north of Antalya or the closed type like the Susuz Han caravanserai (1236-1246) in the vicinity of Burdur, or the larger type combining both characteristics, that is, usable in all seasons, like the Sultan Han caravanserai (1229) and the Zazadin Han caravanserai (1235) between Konya and Aksaray, the Karatay Han caravanserai (1240) between Kayseri and Malatya, the Ağzıkara Han caravanserai on the Nevshehir-Aksaray highway, the Ishaklı Han caravanserai between Akshehir and Afyon, the traces of an inexhaustible creative power are evident. Although these caravanserais have more or less the same plan depending on the function they were intended to perform, differences are noticeable in their size, in the decorations of the portals, in the number of the naves and in the arrangement of the rooms and stables. These differences indicate how the architects, who were expected to make plans on the same pattern, felt a necessity for originality.

This desire for original design came as a result of dissatisfaction with existing patterns; it is therefore necessary to draw attention to the mosques of the large caravanserais both of the open and closed types.

These mosques are of two types: They are either in the shape kioskmosques built on four arches in the courtyard as in the case of the Konya and the Kayseri Sultan Han caravanserais, or they are on the upper right hand side of the entrance as in the case of the Zazadin Han, the Karatay Han and the Sarı Han caravanserai which is on the Ürgüp-Avanos highway. There is also a transition type of mosque built on three arches on the left of the front part of the building, one side being connected with the western wall as in the case of the Kızılviran Han Caravanserai between Konya and Beyshehir. It is later that this type gave place to the type built in the courtyard. Because of its earlier date, the mosque in the Kızılviran Han Caravanserai is illustrative of the early efforts in the style of the kiosk-mosque.

This indicates how the architect of this building tried to site the mosque in relation to the whole and still keep a sense of proportion. Another piece of evidence of the architect's efforts to establish a new order, abandoning the usual pattern, is the different directions of the caravanserai portals. The winter sections of the Ağzıkara Han Caravanserai and the Kesik Kopru Caravanserai (1268) 18 kilometres south of Kırşehir are connected to the courtyard on the left hand side. So the courtyard portal and the portal of the closed section are in different directions. In the case of these two caravanserais this can be explained by reference to the position of the land, but the same explanation is not applicable to the example of the Zazadin Han Caravanserai.

In short, from the proportion of blank and decorated spaces on the portals to the number of naves in the closed parts, all the differences enumerated are evidence of the architect's efforts to achieve a well-proportioned building.

Apart from the above three types of caravanserai, there is another type which combines the closed and the courtyard-caravanserai styles for which the only existing example is the Alara Han Caravanserai (1231). This caravanserai deserves consideration from the point of view of a new effort on the part of the Seljuk architects. Here the courtyard was changed into a roofless corridor. There were four rooms for the guests on the right and left sides of the corridor, each room separated from the other by an ivan. These rooms were carefully separated from those parts of the caravanserai which were for the animals and goods.

These caravanserais which we have tried to describe and classify in outline are evidence of the achievements of the Seljuk architects, not only in religious, but also in secular buildings. The fact that these caravanserais were strongly built against any probable attacks is also another point for consideration. The Mogul commander, Irincin, besieged the Sultanhan Caravanserai, which is on the Konya-Aksaray highway, for two months with a unit of twenty thousand men using all kinds of weapons of that time, but he failed to capture the place and the Turkish bey, Ilyas Bey, who had taken refuge there did not surrender. This indicates the military characteristic of the Seljuk caravanserais. The present state of the Sultan Han caravanserai, although half ruined, rather convinces us that Aksarayi who gives the above account does not exaggerate much.

The caravanserais built after the Mogul invasion are small in number, and inferior to those previously built. This is owing to the effect of the invasions on the commercial activities of the period. Some of the caravanserais belonging to the period can still be seen to-day but most are in a state of ruin. The main ones are the Emir Han caravanserai in Bursa built by Orhan Gazi, the Kapan Han caravanserai built by Murad I, the Geyve Han caravanserai built by Chelebi Mehmed, the Fidan Han caravanserai belonging to the period of Mehmed the Conqueror and the Koza Han caravanserai belonging to the period of Bayezid II. These caravanserais, different from each other only in size and detail, were built on square and rectangular plans with brick and stone, and consist of rooms situated along the porticoes of the courtyards with a pool in their centre. Only in the centre of the Koza Han caravanserai there is a kiosk-mosque under which is an ablution fountain. These caravanserais of a more practical nature are very different from the huge Seljuk caravanserais.

Many caravanserais were built in Istanbul also and flourished during the Ottoman Empire during which time the population continuously increased. The Kurkchular Han caravanserai which was built in 1647 by the Grand Vizier Mahmud Pasha in the corner of Mahmud Pasha and Chikrikcilar streets, is, for size and number of rooms, one of the largest in Turkey. The caravanserais built during the Ottoman Empire, apart from their size and number of rooms, are not superior to the Seljuk caravanserais, either in innovation of plan or in decoration. However, there is a typical Ottoman caravanserai situated approximately midway between Tokat and Sivas and

quite near the highway, which was probably built towards the end of the XVIth or the beginning of the XVIIth centuries. This does not fall into any category of caravanserais built in the Seljuk or the Ottoman periods and ought to be mentioned. This square shaped caravanserai has long, narrow courtyard with doors at both ends and looks like a street with shops on either side. In the middle of the rows of shops on each side there is an entrance to the closed parts of the caravanserai. A similar caravanserai to this one is the Oküz Mehmed Pasha Caravanserai (1619) in Ulukışla.

Architectural Decorations

In Seljuk architecture decoration takes precedence over the size and complexity of the building. Whether the construction is a mosque, a medreseh or a caravanserai, it looks as if it were built for the purpose of allowing the artist complete freedom to develop his artistic skill. The accessories such as doors, windows and fixed frames are full of different kinds of motifs. The main motifs are ribbon, braid, gulche and kabara and palmleaf patterns. Apart from these there is a tendril shaped pattern which is originally based on stylized animal figures. This kind of ornament, called "Rumi", is the most widely practised pattern in Seljuk architecture. In some of these motifs originating from Central Asia the kinds of animals they represent are distinguishable, e. g. the snake on the arch of the kiosk-mosque of the Kayseri Sultanhan Caravanserai.

It is necessary to point out here that animal motifs were used in Seljuk architecture on a large scale. The motif of twin eagles known in Anatolia from the time of the Hittites, the lion, elephant, birds and some imaginary animal motifs were used on stones and tiles. It is likely that these figures forming the decorations on city walls, doors, towers, were used as charms to keep away enemies and evil spirits.

In the Seljuk ornaments there are also human figures. The male and female figures on the eight-cornered star-like tile pieces, unearthed during the Kubadabad excavations and exhibited in the Karatay Medreseh which is now a museum, are similar to those on the Keshan earthenware and eight-cornered star-like tiles. This fact indicates that Seljuk art is the continuation of the development of eastern art in the west.

In Seljuk decorative work in Anatolia there are human figures carved on stones, e. g. two cavalrymen attacking a giant, a young man sitting crosslegged and holding a round object in his right hand. A similar figure to the latter is seen on a piece of tile from Kubadabad.

In the architectural decoration of the Seljuk art, especially on the portals, some geometrical elements such as polygons, interlinking circles, eight or twelve-cornered stars were used on a grand scale. Among these patterns calligraphy plays an important part. The Anatolian Seljuks preferred the Neshi style to the Kii style. Several patterns of the Neshi style are seen on the arches of the portals, around window frames and stone inscriptions of XIIIth century buildings.

These calligraphical patterns were not only cut in stones but also used on tiles covering surfaces. The writing on the portal of the Ince Minareli Medreseh is an example of the first, the one inside the dome of the Karatay Medreseh of the second. Some of these inscriptions are quotations from the Koran, some are wise sayings and some give the names of the architect and the donor. All of them have an ornamental quality.

It will be noticed that the Anatolian Seljuks used tile decoration in the same manner as did the Horasan Seljuks. Suitable surfaces for tile decoration were always allowed for. The Horasan architects were not particularly interested in the use of tiles; they made light-shadow plans arranging bricks vertically and horizontally and in recessed and projected ways. The use of tiles to cover the internal and external surfaces of the buildings started in the period of the Ilhanlis. The Anatolian Seljuks preferred to use stones in their buildings. Except on the minarets there are no tiles on external surfaces. Tiles were most used to cover the interiors of domes, the walls, the soffits and the altars. The pieces unearthed from excavations show that the walls of the corridors and rooms of the palaces were covered with tiles.

After the Mogul invasion a change in decorative works is noticeable. Although the use of marble to face the buildings was practised during the Seljuk period, this was more widely practised during the period of the principalities especially in the west of Anatolia. Contrary to the fact that Seljuk stone decorations continued in Central Anatolia in the baroque style, there was a noticeable simplification in the art of Western Anatolia. The over-decorated Seljuk portals gave place in the west to portals with simple arch - mouldings. The

Ahmed Gazi Medreseh (1375) of the Menteshoğulları principality in Pechin and the Ilyan Bey Mosque (1404) in Miletus near Söke are two examples to illustrate this fact.

During the period of the principality of the Ottomans, while some buildings were still faced with marble, another technique was developing; this was an intermingling of bricks and stone in various patterns so as to produce a decorative effect. In this period internal decoration was more widely practised than in the Seljuk period. In this way a kind of balance was achieved between the internal and external appearances of buildings. The use of tiles to cover the interiors of the mosques and mausoleums continued increasingly at this time.

The Hatai style originating from Central Asia and consisting of stylized leaf, tendril and flower motifs was practised mixed with the Rumi style on stones, tiles, plaster and wooden surfaces from the second half of the XIIIth century onwards. Later on it supplanted the Rumi style altogether.

The Ottoman sense of beauty was based on the simplification and harmony of the lines and figures, not on over-decorating them. The façades and the portals were decorated according to certain rules originating from this sense of harmony. The Ottoman stalactites, unlike the curving Seljuk stalactites and lozenges, were more suitable for the purpose.

The motifs used by the Ottomans as architectural decorations have geometrical and calligraphical elements with plant patterns used in a different way. The best synthesis of these decorative elements and motifs is seen on the tiles covering the interiors of Ottoman buildings.

The medresehs in Seljuk architecture, along with the caravanserais, hold the most prominent place as mature architectural works. In Ottoman architecture the mosques excelled and their masterpieces were built in the XVIth century. As in human societies, advancement in the arts is followed by decadence. Turkish architecture, which started to lose its originality from the XVIIth century onwards, tended to imitate the baroque style, good examples of which had been created in Europe in this century. The Nuruosmaniye Mosque which was completed in 1756 is the last interesting work which is a synthesis of the weakening Turkish architectural tradition and the European baroque style.

C A T A L O G U E

M O S Q U E S

The Mesjid-i Jum'a, Isphahan.

The Mesjid-i Jum'a of Isphahan was built of brick by Nizam-ul Mulk in the name of Melikshah in 1121, during the reign of the Seljuks in Horasan. This mosque is one of the very few of its kind which has reached us without any alterations in its plan.

The Mesjid-i Jum'a covers an area of 170 metres in a north-south and 140 metres in an east-west direction. The courtyard in front of the mosque measures 65 × 55 metres. This mosque was built in place of an earlier mosque, erected by el-Mansur, the Abbasid Caliph. The mosque was rebuilt with four ivans, which is of great importance in the history of Turkish art; unfortunately we do not know when it took this form. The fact that the Zevare Mosque was built with four ivans in 1136 supports one belief that the Mesjid-i Jum'a was rebuilt in its present plan not long after its destruction in 1121. This is the reason why the Mesjid-i Jum'a is considered as the prototype of the four-ivan mosques which were erected during the time of the Seljuks.

The main entrance is through the large ivan in the south. The brick minarets on both sides of the main entrance were built during the time of Uzun Hasan of the Akkoyunlu dynasty.

Transition from a square plan to a dome has been through conical vaults filled with archmouldings. The stalactite pattern which enjoyed great popularity in every branch of Islamic art owes its existence to these archmouldings. The four archmoulding style is important both from technical and aesthetic aspects. Its technical importance lies in the fact that the weight of the dome is distributed over the four archmouldings to the four walls of the square plan building.

The second advantage, which is of an aesthetic nature, is that the large conical vault was replaced by a dome. Thus the conical vaults of the Mesjid-i Jum'a are the beginnings of stalactites.

The Mesjid-i Jum'a, Zevare and Ardistan Mosques, combining the novelties and features we have been trying to explain, are among important Turkish buildings, showing the course of development of the Seljuk mosques. Mosques built in this style in Anatolia are the best specimens of the continuation of the Seljuk style. In fact it was after the development of this type that most of the mosques in Iran and Turkestan were built in a similar style.

With successive additions to the Seljuk buildings after the dissolution of the Seljuk Empire, particularly during the time of Ilhanis, Muzafferis, Akkoyunlus and Safevis (in 1310, 1366, 1475 and 1531 respectively), the Mesjid-i Jum'a grew into a large centre. The Kumb-i Haki, built in the northern part of the courtyard for Turkan Hatun, wife of Melikshah, by Taj ul-Mulk in 1088, is of great artistic value.

The Alaeddin Mosque, Konya

This is one of the oldest mosques in Anatolia. Built on the northern slope of the mound called the Alaeddin Tepesi in the central part of Konya it is also the largest and the best preserved of the Seljuk buildings. Consisting of three main parts, the mosque has an irregular square plan. Measuring 85 × 57 metres, the mosque has numerous naves and is roofed with a layer of clay over wooden rafters resting on arcades supported by columns. There are windows on all sides. In the mosque there are 62 pillars which are linked with one another by wooden arches. It is believed that the pillars were from an earlier building. The construction was begun during the last part of the reign of Sultan Rukniddin Mes'ud (1116-1156), and the domed part, where the altar and minber are, were probably completed during the reign of Kılıcharslan II (1156-1192). This dome is covered with tile mosaics inside. The western part of the mosque, where there is a maqsura, was added by Izzeddin Keykavus I (1210-1219), who also enlarged the existing courtyard, built walls round the turbehs and incorporated them within the courtyard. The most recently enlarged section of the mosque is its eastern side which was completed during the reign of Alaeddin Keykubad I (1219-1236). To-day it

stands with its large altar and narthexes with pointed arches formed by five rows of columns with seven columns in each row. The mosque is called after the Sultan who completed it. The additions necessitated by demands for more space have ultimately thrown the building out of its axis and affected its general shape and appearance.

The frieze-fringed entrance on the north side with the inscription of Alaeddin Keykubad is a fine example of the Seljuk technique of geometrical decoration and of two-colour marble workmanship. The door is between double fixed frames, and an upper threshold consisting of seven black and white marble tablets is placed between their horizontal mouldings. The dedicatory tablet inscribed in the name of Alaeddin Keykubad is in the pediment of the niche with pointed arches in the doorway. The pediment of the niche and the geometrical patterns of the two-coloured marble frieze of the arch form a very intricate pattern of semi-circles. On both sides of the door and on the top are slight decorative columns.

The drum of the dome, which is supported by the wall and the two columns, is decorated with tile mosaics. In its original form the inside of the dome was completely covered with coloured tile mosaics, but in time they have fallen out. Very few specimens of the tile mosaics on the friezes of the altar are now left.

The black wooden minber is one of the finest examples of Seljuk woodcarving. The sides, the minber, the fixed frames of its door, and the pediment are decorated with geometrical and plant motifs and inscriptions. The minber was built by Mekki of Ahlat in 1155.

There are two turbehs to the north of the mosque. The one with a round plan and dome was built by Kılcharslan II, Keyhusrev I and Alaeddin Keykubad. The second turbeh, which has an octagonal plan, was not completed but is important for its portal.

On the upper part of the northern wall of the mosque there are twentyone windows.

Taking the mosque as a whole, we see that it lacks a distinct façade, but the door on the northern wall of the earliest section, which is now closed, indicates that the northern wall was once the façade.

The architect of the mosque was an artist with the name of Muhammed ibn Havlan-ul Dimishki. The Alaeddin Mosque is one of the three XIIth and XIIIth century mosques in Anatolia which are characterized by their large courtyards; the others being the Ulu Jami in Sivas and a mosque in Sinop.

The Ulu Jami, Divriği

Located in the town of Divriği in the province of Sivas, the Ulu Jami is a multi-columnar mosque. It is covered with regularly cut lime-stone. It is built in combination with a hospital which is attached to it on the south side. The two buildings form a square measuring 64 metres by 32 metres. The mosque is separated into five parallel halves directed to the kibla wall by means of four rows of pillars each consisting of four pillars. These are covered by twenty-five rib-formed vaults. Nineteen of these, which retain their original form, are made of stone; six of them, which were made later, are of brick. The dome is in front of the altar, and its outer cover is pyramidal. The interior of the dome is twelve segmented. The tip of each segment is decorated and the capitals rest on small decorated columns. The interior double niches of the squinches have stalactite designs.

The altar which is decorated with plant motifs is in a wide frame. The pulpit which is made of wood is one of the finest specimens of the art of carving of the time. It was made by Ahmed, the son of Ibrahim of Tiflis.

The most richly adorned of the three portals of the mosque is the one on the north side. This mosque is in fact the most interesting of the Seljuk mosques from the stand-point of the decorations and style of its façade. On the upper part of the door in the arch there is a stalactite archmoulding. The door frame, which is placed between stalactites rarely seen in other Seljuk mosque, is decorated with large leaf motifs, disks and inscriptions. It appears clearly that there is some exaggeration in the size, composition and arrangement of motifs. These are of a kind more commonly observed on cloth, embroidery, and particularly on metal work. Therefore there is no harmony between these decorations and the main building. In spite of this the portal is still impressive and the decorations are beautiful in themselves.

The second portal on the west is not as impressive as the former, but its plant motifs are very skilfully made. On the right-hand side of this portal there is a double-headed bird relief which is not seen in connection with the other doors. The door in the east was closed and turned into a window.

Originally the mosque had no minaret; the one seen in the corner to the right of the door was built afterwards.

We know that the domed part in the middle of the central nave was originally a courtyard with a pool, and the dome was a later addition. In fact the Ulu Jami at Divriği was subjected to repair at various times, and its original plan was slightly altered.

We understand from the inscription on the mosque that its architect was Hurrem Shah of Ahlat, and that it was built by Ahmed Shah, of the Mengudjuk Oğulları family in 1229 during the reign of Keykubad I.

The most important characteristic of the mosque is that it is a treasure house of motifs, which are quite different from those of other Seljuk monuments, and that it has a portal which is unique in Anatolia.

The Isa Bey Mosque.

This mosque is in Ephesus (modern Seljuk). It bears this name because it was built in 1375 by Isa Bey, from the dynasty of Aydın-oğulları. It is in two parts, the courtyard and the mosque proper. This mosque is one of the oldest and most typical of the west Anatolian mosques with open courtyards. The east, west and north sides of the courtyard are surrounded by open porticos with pointed arches and are covered with a flat wooden roof. The type of courtyard of the Isa Bey Mosque is a peculiarity, an architectural innovation that separates the architecture of the period of the principalities from that of the Seljuks. The courtyard is entered by two portals, one in the east and the other in the west. The west wall of the mosque, that is, its façade, is carefully covered with hewn marble blocks. These extend round the corners and are continued to cover a little part of the north and south walls. On the other hand, the other three sides of the mosque, that is, the south, east and north sides, do not have such careful cut stone workmanship as the west wall. The frames of the windows in double rows on the west side of the mosque are all different from one another. Amongst them are some with stalactites and exquisite frames. The Isa Bey mosque, whose walls are studded with windows, is important. It shows a desire on the part of the architect to brighten the interior of the mosque. This multi-window style is a peculiarity of the period of the principalities, and the Isa Bey mosque is one of the earliest examples of this type.

The centre part of the Isa Bey Mosque, which is 18 metres wide and 48 metres long, is covered with two domes of different diameters,

one being 9.36 metres and the other 8.13 metres, and the sides are roofed over. This kind of building was achieved by cutting the two naves running parallel to the Mecca wall with a third nave with two domes at right angles to the Mecca wall. There is no portico at the congregation space of the mosque.

The minaret stands on an octagonal base. It is made of bricks, is round, and is placed on the left of the portal in the west.

Of the two portals, the one on the left is decorated and high but it is narrow and is surrounded by a perforated moulding. The archmoulding, which has been built with alternating white and yellow stones, is decorated with rows of stalactites and a very finely wrought fan motif. The area between the stalactites and the cross beam of the door is decorated with geometrical designs and a line of writing going in two directions. This explanation shows that, as opposed to the previous period, the portal of the Isa Bey Mosque is ornamented in a simple way, that the new period brought in new ideas of ornamentation and that these ideas were applied in this mosque. Therefore, as stated above, the Isa Bey Mosque is a typical work of art displaying all the innovations introduced into Anatolian architecture in the period of the principalities. The architectural works of this type still retain the basic principles of the Seljuk architecture but the simplicity of the ornamentation, the admittance of light into the mosque and the porticos in the courtyard are points differing from the classical Seljuk architecture.

Unfortunately this typical and beautiful monument is in a very ruined state to-day.

The architect of this mosque was Dimishklioglu Ali.

The Ulu Jami, Manisa

The oldest building in the city of Manisa, this mosque was erected on the hill of Sandikkale in the south. Adjoining the mosque is its medreseh.

Including the courtyard the mosque covers an area of 32.95×36.55 metres. The mosque proper measures 30×15.30 metres. The large dome which has a diameter of 10.30 metres rests on the south wall and on six pillars. Two side naves are covered with small domes. The floor is covered with hexagonal brick. The columns and their capitals were obtained from Byzantine ruins. The altar is small and

low. The wooden minber, which was made of small pieces decorated with Rumi and Hatayi carvings, is one of the finest specimens of XIVth century Turkish wood workmanship. According to its inscription, the minber, which is in a very dilapidated state to-day, was built by Muhammed b. Abdülaziz. The decorations were made by an artist with the name of Yusuf.

The courtyard with porticos on three sides repeats the plan of the mosque. The porticos on the east and west are merely an extension of the naves towards the outside of the building. The parts of those which are joined to the mosque proper are not yet in the nature of a narthex gallery. The area with the fountain outside corresponds to the part covered by the dome inside. The columns used in the part were also removed from some older buildings. The minaret which is on the north-east corner of the medreseh is built of green, blue, purple and yellow glazed bricks and looks as if a Turkish rug is wrapped round it. Apart from a door opening into the mosque in the south of courtyard, and one opening into the courtyard of the medreseh in the north, it has two high portals of simple design in the east and north, which are reached by stairs on the outside. The door in the north, which is the main entrance, has a date and an inscription according to which the mosque was built in 1336 by Saruhanoğlu Ishak Bey.

The Ulu Jami of Manisa occupies an important place in the history of Turkish architecture as the earliest mosque having a courtyard with porticos, and with a large dome of the Ulu Jami type. These developments prepared the way for the Uch Sherefeli Mosque of Edirne, which can be considered as the first of the classical Ottoman Mosques.

The Yeshil Jami, Bursa

One of the most important Ottoman monuments of the period of the principalities, this building is situated on the slope of a hill in Bursa, which dominates the plain.

The walls of the building are faced with marble on the outside. Large and decorated windows relieve the monotony and heaviness of the exterior appearance of the building. In the middle of the façade there is a magnificent portal surrounded with bands of inscriptions in the Hatayi and Rumi styles, and richly decorated with

rows of stalactite patterns. In the tablets above the small altars on the sides of the entrance the name of the architect Haji Ivaz, son of Ahi Bayuzid, is inscribed. On a wide tablet which stretches like a ribbon over the door there is an inscription which states that the mosque was built for Chelebi Mehmed and that it was completed in 1419. In spite of this record, the narthex part of the building was never completed. On each side of the portal there are two rows of windows, each enclosed in square mouldings. Of these the ones in the upper row consist of wide and simple spaces provided by means of the Bursa type arches. The windows of the lower row have pointed arches and are richly ornamented. Each window is enclosed within frames with stalactite designs; the pediments are filled with linear patterns and inscriptions. Blank round medallions and long cartouches circle the windows. When work on the building was interrupted some of these inscriptions on the cartouches were also left incomplete. Between the windows and above the projections of the portal there are consoles and springers on which the arches of the narthex rest. Between the two lower windows there are two small altars resembling the portal. The lower sides of these altars are on the same level as the floor of the narthex which was planned to be built but was never realized.

The four-ivan arrangement was given a new treatment in the Yeshil Mosque. The main entrance opens directly on to a lobby formed by the intersection of a corridor parallel to the façade with an ivan which gives passage to the interior. On both sides of the protrusions inside the doorway and above the corridor, there are two columns removed from earlier buildings, and beyond them are the stairs leading to the floor above.

The entrance ivan opens on to a square hall of the same level, which has a fountain in the middle and a skylight on the dome. On both sides of this hall, which is like a covered courtyard, and in front of it are ivans raised from the floor level, and a gallery on each side of the door, which are reached by two steps.

The side ivans which are small have pointed arches. They are covered by segmented domes resting on pendentives with stalactites. The large ivan which contains the altar constitutes the main worshipping area of the mosque. The dome of this part rests on triangular consoles and opens on to the hall containing the fountain with a large Bursa arch. The lower part of the arch is made thinner by means of steps of stalactites, and their projections are reduced.

On both sides of the side ivans there are rooms forming the four corners of the building. Those in the south-east and south-west, which were probably used as classrooms for students of theology, are reached through doors at the corners of the hall with the fountain. The rooms in the north-east and northwest, which were used as judicial offices, are reached by narrow passages added to both ends of a corridor stretching parallel to the façade wall.

The landings at the end of the stairways leading to the second floor open on to a small lobby with a dome in front of the magnificent royal gallery above the entrance ivan.

On both floors the lower parts of the walls are covered with dark green and light blue hexagonal tiles, which give the mosque its name, and the pediments of doors and windows in the rooms and on the upper floor are decorated with Hatayis and inscriptions on tile. The walls of the entrance ivan, all the interior surfaces of the galleries, the friezes of the door-frame, and the 10 metres high monumental altar are made of tiles decorated with Rumis, Hatayis, inscriptions, geometrical patterns, and rich compositions. The tile work is by Mehmed Majnun of Tebriz, whose signature is to be seen in the royal gallery. According to an inscription in the same gallery, the paint work in the mosque is by Ali the son of Ilyas Ali. Some parts of this work, which had been plastered and damaged, have been restored. The wooden doors and window shutters give us a variety of specimens of XVth century wood workmanship. Those made of small polygonal pieces with Hatayi motifs on them produce rich light and shade effects and show original geometrical compositions. It is believed these are the work of Ali, the son of Hadji Ahmed.

The Yeshil Jami occupies an exceptional place in the history of Turkish architecture, for it represents a system of ivans overlooking a hall - this is generally known as the "Bursa type" - and it also illustrates the advanced stage reached towards spatial unity during the period of the principalities.

Ulu Jami, Bursa

This mosque, which measures 48.63×45.48 metres inside, is divided into five naves parallel to the south wall by means of fifteen pillars, which are joined to one another and to the walls by pointed arches, thus forming four compartments in each nave and a total

of twenty compartments; these are covered by domes resting on octagonal drums with windows. The second dome of the central nave, which is above the ablution fountain, is glass covered. There are doors facing the fountain in the western and eastern walls of the mosque. The ablution fountain, which is in the baroque style, was made in the XIVth century. The windows are arranged in two rows; some of those in the lower row have been turned into closets.

The square-planned altar niche has stalactites on the upper part. The coloured decorations that we see to-day are from the XIXth century.

The impressive minber, which was built of walnut with fitted-in sections, has been given a heavy coat of paint in recent times. This minber is of great historical and artistic value. It is the work of Haji Muhammed, son of Abdulaziz, the son of Daki who built the minber of the Ulu Jami in Manisa. On both sides of the minber there are different geometrical, Rumi and Hatayi patterns, and inlaid decorations. The composition on the side of the altar in particular, is the most intricate to be seen in the Islamic world. The stars in the composition are all different. The inscription on top of the door of the minber carries the name of Bayezid Han (Yıldırım) and the dates 1399-1400.

Of the two minarets, the one on the west has a tablet bearing an inscription to the effect that it was built by Bayezid Han. Two doors, one inside the mosque and the other outside, lead to the gallery. The minaret on the west was probably built later by Chelebi Mehmed.

There are rows of blind arcades enclosing the windows on the outside of the stone walls.

Owing to numerous fires and earthquakes the Ulu Jami has suffered heavy damage and has often had to be repaired, with the result that some parts of the building have been altered. At the present time repair work is still going on; the plaster-covered façade has been scraped clean, and the original form of the windows, the marble sections on parts of the walls, and the steps with niches running along the length of the façade have been exposed by the removal of the earth filling the courtyard.

The architect of this mosque, which is believed to have been completed during 1399-1400, is unknown.

In its dimensions and general layout, it is the last work the Ulu Jami type.

The Uch Sherefeli Jami, Edirne

One of the most important buildings in Edirne, this mosque covers an area of 64.50×66.50 metres. The mosque has four doors, three of which are in the courtyard and one in the south-western wall. The interior of the mosque measures 24.25×60.00 metres. In the centre rises a dome 24.10 metres in diameter and 28.40 metres high; there are two smaller domes on the sides. Smaller domes are placed in the spaces between the large central dome and the side domes. The central dome rests on a drum with 24 sides on the outside. Of the six pillars of the arches supporting the drum two are in the south wall, and two are in the north wall. The other two pillars in the centre are of octagonal shape and have a diameter of 6 metres. The outward pressure of the large dome has been met on the outside by twelve buttered arches. The interior, which has a unified spatial effect, is heightened by forty-four windows on the dome and forty-three windows in two rows on the walls.

The courtyard, which measures 35.50×60.00 metres on the inside has a fountain in the middle and porticoed colonnades on four sides. The narthex is higher and wider than the colonnades. The measurements of the pillars and of the domes of the colonnades are various. The capitals are also of various shapes; some are of plain design while others have more elaborate stalactite decorations. In the walls of the courtyard there are two rows of windows.

In the corners of the courtyard there are four minarets of various height and design. Of these, the one in the north corner of the wall has two galleries, two stairways and checker patterns; the single-gallery minaret on the eastern corner has a spiral pattern; the minaret on the west corner which has been restored has a straight pipe pattern; and the one on the south corner, that is, in the middle of the south-west wall, has three galleries and a zigzag pattern. This minaret which is 67.62 metres high gave the mosque its name and is the first three-gallery minaret to be built in Turkey. Each of the galleries is reached by a separate staircase.

The building is of cut stone. The outside walls are of a soft yellowish sandstone and the inside walls are of gray sandstone. The pillars are of white marble, pink granite and green Egriboz stone. The arches are made of alternating green, white or red stone. The red and yellow stones in some of the window and door arches are fitted in sections. All door lintels and surrounds are made of white

marble. The minarets are built of red and white stones set in a variety of combinations.

The main entrance leading from the courtyard to the interior of the mosque is plain, but very impressive. On each side of the exterior of the portal, which is framed with a very wide moulding, there are small columns and friezes of stalactites. The Bursa type of arch and the pointed arch surrounding it rest on these small columns.

Some of the carved ornaments are lost, but some have survived in fairly good condition. The decorations in the large dome belong to recent times. There are similar central decorations in the small domes as well. In the porticos the domes are decorated with pendentives, bands of kufi and sülüs inscriptions, bands fitted in sections painted in dark blue, red, purple, brown, yellow, white and black, Rumis, Hatayis, and cloud patterns. The original decorations have survived as they had been subsequently restored.

The carved wooden shutters of the windows are good specimens of the decorative technique of the period.

Inscriptions on the building state that the mosque was begun in 1437 and completed ten years later. The architect is unknown.

The Uch Sherefeli Jami occupies a very important place in the history of Turkish architecture for the following reasons. Its dome is of a dimension never reached before; it has achieved spatial unity; it has a courtyard surrounded with domed porticos on four sides, and a fountain; its walls are relieved with numerous windows proportionately arranged; it has more than two minarets. The Uch Sherefeli Jami was built exclusively of hewn stone; its mouldings, pointed arches, and stalactite capitals acquired classical proportions, and finally it was a work very successfully combined the techniques used in separate buildings of the period of the principalities, and thus became a landmark in the development of Turkish architecture.

The Beyazid Mosque, Istanbul

The Beyazid Mosque, one of the earliest of the large classical Ottoman mosques, stands in a square in Istanbul named after it.

This mosque is built on a rectangular plan consisting of two squares of equal size, one square being for the mosque proper and the other for the courtyard.

The central nave of the mosque proper is covered by the addition of two half-domes on the southern axis of the building. The 18 metre wide dome rests on four large pillars forming a square with flat pendentives and pointed arches. Half domes and supports meet the outward pressure of the dome. On both sides of the central nave there are side naves each with four domes. The arches supporting these domes and the pillars carrying the large dome rest on large columns of porphyry. The sections covered by the domes of the side naves open on to side wings projecting outwards by means of large arches. These parts which are in the corners where the two minarets are were probably built to give the impression of a wide façade and stately appearance.

The interior of the mosque is lit by means of round arched windows on the half-domes, and by the two rows of windows on the walls.

The courtyard with a fountain in the middle and porticos with twenty-four domes all round is of very proportionate dimensions. Marble cornices with stalactites extend round the upper portico. The diameters of the red marble and granite columns removed from older buildings vary. The capitals of these columns are decorated with stalactites. The arches are made of alternating red and white stones. There are two rows of windows in the walls. Enclosed in rectangular frames the windows of the upper row are smaller and have pointed arches, while those in the lower row are not arched. Blind arcades with pointed arches are placed on the latter; thus the outside walls have acquired the character of a façade.

On the axis of the courtyard are three gateways opening to the outside and the main entrance leading to the chief worshipping part of the mosque. Differing slightly in proportionate mouldings and with arch-mouldings having sharp contours and stalactites, these doors are impressive in their simplicity of design.

Different kinds of stone were used in different parts of the building, but the portals, the royal gallery, the gallery of the muezzins, the ablution fountain, the capitals, and the cornices are of marble.

According to the inscriptions the mosque was built by order of Sultan Bayezid II between 1501-1505, and its architect was Yakup Shah, son of Sultan Shah.

The Beyazid Mosque differs from the other Ottoman mosques of the classical period in its low half dome, the bareness of its eastern and western walls and the outward projection of the square

formed inside by the four large pillars. The cascades which give the building a pyramidal appearance are not yet fully developed. In the Bayazid, Mosque, a half dome was added on to the north of Fatih, and thus a large nave extending towards the alter was formed, achieving a unified spatial effect. This is an improvement on the older buildings.

Some art historians maintain that this system with a central dome and two smaller domes is an imitation of St. Sophia, but they are mistaken in this view. They reach their conclusions without taking into consideration the traditions, phases of development and the objectives of Turkish religious architecture.

The Shehzade Mosque, Istanbul

One of the important works of Sinan the Great, this mosque was built for Prince Mehmed by his father Sultan Suleyman the Magnificent. Begun in 1544, the work was completed in 1548.

The mosque was built on a rectangular plan divided into two equal parts, a) the mosque proper, and (b) the courtyard.

The mosque proper, which is a square measuring 30x30 metres, is covered with a large dome 37 metres high and 19 metres wide. To this dome, which is carried on four pointed arches and pillars, are added four half domes each of which is enlarged by two exedras. Small domes are placed on the blank spaces on the corners of the square. The pillars, which are octagonal below, and round and grooved above, continue outside as towers of reinforcement to meet the weight of the dome and pillars. Outside the eastern and western walls of the mosque proper there are porticoed galleries, which hide the stanchions reinforcing the walls on which the arches in the south-west direction rest. Two doors facing each other in the middle of the galleries lead directly to the mosque proper.

The two minarets each with two galleries are very proportionately and skilfully built. The multi-sided bodies of these minarets are decorated with motifs in high relief.

The four sides of the courtyard are surrounded with domed porticos. The pointed arches resting on marble and porphyry columns are made of alternating red and white stones. The walls of the courtyard are divided into rectangular panels, in each of which there are

four windows in two rows. In the middle of the north wall is the large portal, and in the southern wall is the entrance to the mosque proper. The side doors are the width of an arch.

Efforts in the way of achieving a spatial enlargement by adding half domes to the central dome have reached their final stage in the Shehzade Mosque. In the succeeding works we can speak merely of differences of measurement and detail. The small domes in the corners of the square plan, the half domes, the balancing towers, and the cascading form of the whole dome give the mosque solidity and a pyramidal appearance. With the galleries added to the east and west walls of the mosque proper, and the skilfully hidden stanchions, the building has gained two new façades.

The Suleymaniye Mosque, Istanbul

This mosque, situated on a hill overlooking the Golden Horn and the Bosphorus, was built by Sinan for Suleyman the Magnificent. This undoubted masterpiece of Turkish architecture was begun in 1550 and completed in 1557.

The inner courtyard and the mosque built on a square plan is in a large outer courtyard surrounded by walls with windows in them.

The mosque has five doors. The door facing the altar gives on to the inner courtyard, and the two doors on the western and eastern walls open on to the outer courtyard. The mosque proper measures 65×69 metres; the height of the central dome (diameter 26.50 metres) resting on four pointed arches, plain pendentives and four pillars is 47.75 metres. There are two half domes enlarged by two exedras on the southern axis. The sides of the building are covered by five domes larger than those between the corners and the centre. In the Beyazit mosque, thick columns placed in the middle of the space between the two pillars on both sides separate the side naves. In this mosque, two thinner columns placed further back, join the side naves with the central nave, and thus ensure a larger and more unified spatial effect.

The weight of the dome and the arches were partly met by towers of reinforcement, which are extensions outside of the pillars inside, and partly by dividing it among secondary arches, other columns, walls and stanchions. The stanchions were necessarily put outside in the southern direction, and inside on the where the inner

courtyard is. The south wall constitutes the back of the mosque. In spite of this, immediately in front of this back, a cemetery with trees and a turbeh were added, and thus the bulk of the wall was hidden. Tribunes were built between the stanchions in the interior walls of the mosque proper, and the projecting parts were filled in. As there are no half domes on the eastern and western sides the walls, which are subject to greater pressure for this reason, are reinforced by buttresses which are hidden by means of tribunes inside, and two-storied porticos outside, thus increasing the beauty of the façades.

High niches carved into the pillars carrying the dome help to reduce their massive appearance. A cornice resting on innumerable consoles placed side by side encircles the entire central nave like a balcony at the level where the large arches touch the pillars. At the south-east corner is the royal gallery built on porphyry columns. The altar, minber and the muezzin's gallery are of marble. Faience is used only on the sides of the altar. The interior of the mosque receives plenty of soft light through windows in the walls, in the arch pediments in the east and west, in the drum, half domes and the exedras. The upper windows are arched, and the lower ones have shutters. The doors and window shutters are made of small pieces fitted in to form geometric patterns; some are decorated with carvings.

Problems of acoustics and ventilation received the attention of the architect too. There is no echo, and voices are heard clear and strong.

Smoke from candles goes through small holes and accumulates in a small room which is called the smoke room.

The inner courtyard is marble-paved, and surrounded with a portico covered with twenty-eight domes. In the middle is a graceful fountain. The columns are made of granite, porphyry and white marble. The capitals with stalactites are more harmonious in their proportions than those made formerly. In the walls there are two rows of windows. In the middle of the north wall there is the main entrance with rooms on both sides. The main entrance to the mosque proper is in the middle of the south wall. The side doors on the east and west are not exactly in the middle, but a little to the south. These passages separate the narthex from the porticos on the sides. Four minarets rise from the corners of the courtyard. The minarets on the north side have two galleries, while those on the south, which

are higher (63.80 metres), have three. These galleries are ten in number as a record that Sultan Suleyman Khan was the tenth of the house of Osman.

The Suleymaniye is a monument created through the co-operation of town planning, architecture and engineering. Built on a hill dominating the city, the aesthetic and architectonic problems in this building were treated as a whole, and the most satisfactory solution attained. Every part reveals mathematical precision and care. Every piece is used in the right place and in the right proportion. The merging of the stanchions into the tribunes inside, and the galleries which give a sense of movement and liveliness are very ingenious. Viewed from all directions the general appearance of the building is a symbol of harmony and proportion. The gradual and smooth transition to a pyramidal form, by the lifting arrangement of the small domes on the corners, the half domes and the buttresses give the building weight without a crushing effect, solidity and soundness, as well as a lightness and a sense of elevation without leaving an impression of insecurity.

The Selimiye Mosque, Edirne.

Built on the highest hill in Edirne by Sinan the Great who was commissioned by Sultan Selim II, this mosque is an architectural masterpiece. Begun in 1569 the construction was completed in 1575.

The mosque and courtyard, which are of a rectangular plan, are in the middle of a courtyard surrounded by walls with windows.

The mosque has five doors which are connected with the galleries above. The door on the north opens on to the interior courtyard, and those on the east and west open on to the exterior courtyard. The nave which is almost a square is covered with a magnificent dome 31.28 metres in diameter and 42.28 metres in height. The blank spaces in the corners are filled with exedras. The appearance of the multi-sided pillars is made more graceful by dividing their surfaces into long panels by moulding. The south wall projects deeply towards the outside. This part, which contains the altar and opens on to the nave through an archway, is covered with a half dome. The pillars in this direction are buried in the corners of this projection which serves as a support for the weight of the dome. In the other three directions there are passages between the pillars and the walls.

The weight on these pillars is transferred to stanchions by means of arches in the mosque in the north, and outside the walls in the east and west. The stanchions in the north are fused with the main entrance, while those in the east and west are completely hidden by means of porticoed galleries built between them, and by placing the arched landing of the doorways in the spaces between the projections and the minarets in the corners. Not satisfied with this arrangement, Sinan made use of these stanchions for the solution of other aesthetic and architectonic problems; he placed the stairs leading to the galleries on the floor above in the buttresses and furthermore used them to break the monotony of the rows of arches and horizontal lines. The eight graceful towers, which are extensions on the outside of the pillars carrying the dome, also help to break the monotony of the rows of windows in the drum.

Abundant soft light comes into the mosque through windows in the tympanum, drum and exedras. The upper windows are arched, while the lower ones have straight frames and shutters. The doors and window shutters are made of small pieces of wood fitted in to form geometrical patterns. The altar, minber and the muezzin's gallery are some of the finest examples of Turkish marble workmanship. The mouldings of the lower windows, the royal gallery, the altar wall, the back and top of the minber are covered with tile work. These tiles made in Iznik are the finest tiles of the period as far as colour, composition and quality are concerned. Some of the tiles of the royal gallery were removed by the Russians during the Russo-Turkish wars of 1877 and 1878. The places where tiles had been removed were later painted. The coloured decorations underneath the royal gallery have survived in good condition. There are other coloured decorations elsewhere in the mosque.

In the middle of the marble-paved inner courtyard there is a very graceful marble ablution fountain. The doors of the courtyard, three of which lead to the exterior courtyard, and to one the mosque, are impressive for the simplicity of their design. The doors separate the narthex from the side porticos. The windows arranged two together in two rows and the domes of the porticos of the interior courtyard give the appearance of a façade.

Four slender minarets, each 70.89 metres high, and each with three galleries, rise from the four corners of the mosque. The minarets are grooved and those joining the wall of the interior courtyard have

separate stairs leading to each gallery. The minarets were placed in the corners of the building for technical and aesthetic reasons.

As in the case of the Suleymaniye Mosque, the Selimiye likewise is a joint product of town planning, architecture and engineering,. Built on a dominating hill so as to be seen from every point of the compass, the Selimiye rises above the city of Edirne like a beautiful crown. Viewed from close quarters, the tall minarets give the impression that the mosque is lower than it really is, but from a distance the building gains a towering effect through them.

Spatial development in Turkish architecture has reached its culmination in the Selimiye Mosque, which surpasses any other work in the world in size, height and unity.

Architecturally, light has been used very skilfully in this building. The regulation of light inside is such that it does not tire the eyes and spoil the spatial effect. The shadows obtained by a skilful blending of flat and curved surfaces outside add to the solidity and magnificence of the exterior appearance of the whole building.

Rising in four stages the building presents a magnificent façade on all four sides. The arrangement of the stages, the horizontal and vertical placing of the curved and flat surfaces in a rhythmic way, and the interrelation of all the elements makes a very harmonious whole.

Every part of the building reveals a mathematical precision and perfection. Technical and aesthetic problems are not given separate treatment, but are taken and solved as a whole. Every stone is placed with technical and aesthetic consideration, and therefore it can be said that the Selimiye is an example of unity in plurality.

This mosque, which Sinan created in his period of maturity, is, on account of its size, spatial effect, proportions, firmness and organic unity, one of the greatest architectural masterpieces of the world.

The Nur-u Osmaniye Mosque, Istanbul.

Begun in 1748, during the reign of Mahmud I, this mosque was completed in 1756, during the reign of Osman III. It is generally believed that the architect was Çelebi Mustafa who was assisted by his apprentice Simon Kalfa,.

The mosque and its courtyard are built on raised ground (terrace) reached by steps. The mosque proper, built on a square plan, is covered

with a large dome (diameter 25.75 metres), which rests on four semi-circular arches supported by the corners of the walls. The weight of the arches was met partly by projecting and thickening the corners in the south, and partly by transferring the weight to the wings with thick walls forming a projection towards the outside. The corners in the opposite direction were reinforced by supporting walls widening sideways and extending as far as the walls of the courtyard. The projections produced in the mosque proper by the supporting walls on both sides of the entrance are hidden by being turned into galleries. The corners on which the large arches rest continue outside as balancing, towers, and the buttresses of the dome are connected with these towers.

The middle part of the south wall, in which the altar is set, projects towards the outside in the form of a polygonal niche covered with a half dome. This projection also serves as a buttress for the south wall.

The interior walls of the nave are divided into three parts by means of two rows of thick, projecting cornices. Between the two cornices are the galleries. On the upper cornice, which encircles the entire nave at the level where the large arches begin, the Sura of Fatiha from the Koran is engraved. As in the other mosques of the period, the royal gallery is reached by a staircase from outside. On the walls of the mosque proper there are 174 windows closely arranged in five rows, and 32 windows on the drum of the dome, four of which are blind. The arches of these windows are segmented or semi-circular.

The oval medallions on the windows of the lowest rows are decorated with inscriptions of the most famous calligraphists of the period. Below the drum there is a frieze consisting of acanthus leaves. The motifs of the drum and the decorations of the dome are characteristic of the decorative style of the period. The plaster decorations of the windows above the altar are different from those of the classical style.

The courtyard, which has three entrances, one in the middle and the others on the sides, is on a polygonal plan. It is surrounded with a portico with nine small domes and a narthex with five domes. There is no ablution fountain in the courtyard. The round arches of the portico rest on capitals resembling those of the Ionic order. The arches of the windows in the walls of the courtyard are segmented. The eaves on the front are formed of various mouldings. The profiles of the doors are very richly adorned. The stalactites on the entrance

niches are replaced by sea-shell motifs and overlapping circular mouldings.

The two minarets each with two galleries are placed on both sides of the narthex. Covered with stone caps the minarets have pipe patterns from the base up to the first gallery. Underneath the galleries are round mouldings.

The Nur-u Osmaniye Mosque is a work combining the Turkish and Baroque styles, but the constructional and decorative elements of these two styles are not harmoniously fused. The building therefore lacks organic unity. Contrary to the classical Ottoman conception of architecture, the decorative elements have a dominant place in it. Curves have replaced straight lines; round arches take the place of pointed arches and stalactites give place to mouldings with round profiles. In spite of these differences, the architect did not abandon the traditional square plan. A square plan covered with a single dome is contrary to the principles of the Baroque style. The oval plan of the courtyard and the main building are not harmoniously related.

Thus this attempted grafting of the Baroque on Turkish architecture, which had exhausted its creative spirit, failed because it was foreign to it, and it can be said that the classical period came to an end the Nur-u Osmaniye, the result of this unsuccessful experiment.

M E D R E S E H S

The Karatay Medreseh, Konya

Built for Emir Jelaleddin in Konya in 1251, this medreseh, from the point of view of its plan and decorative style, is one of the most important works of its time. Repaired several times, and used by the Ottomans, the building was abandoned towards the end of the XIXth century. With the collapse of the north, south and east walls, all the students quarters, and a large part of the doorway have disappeared. Some differences have been observed in the plans of restoration.

The medreseh covers an area of rectangular shape measuring 24.30×32.50 metres. The portal on the north-east opens on to a doorway, which now forms part of the courtyard. The remains of the dome and the walls indicate that the doorway was once a hall measuring 7.45×8.00 metres. A small door here leads to a large nave covered by a dome 12 metres in diameter resting on triangular pendentives resembling a five-sectioned fan. The covered courtyard is surrounded by students'rooms and has in the center an ablution fountain, is in the nature of a closed courtyard. To the west of this closed courtyard and on both sides of the ivan which measures 7.90×6.30 metres, there is the Turbeh of Jelaleddin Karatay measuring 7.10×6.80 metres, and a professor's room built in the same form, but now in a state of ruin. On the other three sides are the walled-in doorways of the students'rooms of which nothing remains to-day.

Great care was taken in the decoration of the façade and the interior. The portal measuring 7.50×8.25 metres made partly of white and partly of grey marble is similar to the north portal of the Alaeddin Mosque, but it is richer and more beautiful. On the top and extending the full length of the portal there is an inscription in one line giving the name of the founder and the date of the building. The main arch is embellished with circles consisting

of bands of white and grey marble. The grey marble bands, first extending in an outward direction at the beginning of the arch and then upwards, form geometrical patterns on the pediment, at the top corners of which they turn inwards and are joined to form a circle. Thus the corners are framed in coloured mouldings. The circle on the top of the arch and the two drip-mouldings on both sides of it are very elaborately adorned. The arch-moulding, which is not very deep, is filled with four rows of stalactites. Koranic verses are inscribed round the door frames and the door-head, which is made of two-colour marble. On each corner of the entrance cell there is a spirally-formed column. On the front at about the level of these columns there are two panels with swastika patterns.

Inside the building we find very fine Seljuk tile workmanship. Most of the green, blue, dark blue, black, brown gilt hexagonal faience tiles which once covered the lower part of all the walls have now disappeared. The upper part of the walls is covered with mosaic work. On the bands on the upper part of the walls and on the drum are inscribed in Kufi style Ayet-ul Kursi and the Sura of Bakara, and in the corners the names of the Prophet and the four caliphs. Inside the dome are turquoise stars on a dark blue background, giving the impression of a night sky, which is particularly impressive.

Neither the architect nor the faience artist signed their names in any part of the building.

The medreseh was restored last in 1955 and turned into a museum.

The Chifte Minareli Medreseh, Erzurum.

Sometimes called the Hatuniye Medreseh, this building is in Erzurum. Covered with cut stone, it is the product of a fine stone workmanship. Through an impressive portal on the northern façade (length 35.28 metres) and an ivan covered with a barrel vault, one enters a rectangular courtyard measuring 30.30 × 12.20 metres. Ivans with pointed arches on the four sides of the courtyard are important features of this building which is typical of the Seljuk style. In fact the importance of this medreseh lies in its ivans. The courtyard is surrounded with porticos on three sides. The pointed arches of the porticos rest on sixteen columns. The number of medreseh rooms between the ivans on both floors is nineteen. Stairs built in one corner of the courtyard lead to the upper floor. The arches of the portico of the upper floor rest on eight pillars.

The entrance to the minarets on both sides of the portal is through the rooms on each side of the entrance ivan. The room on the right serves as a mesjid (a small mosque). The upper part of the round minarets, which consists of sixteen half cylinders, and their faience mosaics have been destroyed.

The rectangular portal is bordered with five bands of veined palm-leaf patterns. Plant motifs form the most important decorative feature of the portal. Below the pointed arches of the two frames, and placed symmetrically outside the door frame, are two dragons, palm-leaf figures rising from a crescent, and in the middle of them a double eagle motif. The harmonious blending of the decorative bands of the portal is very attractive.

To the south of the medreseh there is a turbeh, the ivan in front of which has been destroyed.

The main body of the two-storey turbeh is of cylindrical shape, while the roof is of conical design. The upper story has an altar. With the addition of slightly pointed arches, a decorative band, and cornices on the outside, the turbeh was made more attractive. It must have been built at a later date than the medreseh, but within the Seljuk period.

The founder of the medreseh was Hond Hatun, daughter of Alaeddin Keykubad I, in 1253.

The Medreseh Of Chelebi Mehmed, Merzifon.

This single-storey medreseh differs from other Ottoman medresehs in its general layout. In this work we have a different application of the fourivan system. The four projected ivans in the middle of the square formed by four walls are domed and the side ivans are turned into rooms. The entrance ivan in the east is the best part of the medreseh. It is 7 metres wide, 8.40 metres deep and 9.50 metres high. The plain portal of stones of alternating colour with a pointed arch leads to a large lobby decorated with arabesques. Above this there is an octagonal room. The dome of this room was removed in 1870 and the clock tower of the city was put in its place. Through a second door at the end of the lobby the porticoed courtyard with twelve pillars is reached. The doors decorated with geometrical patterns, rumis and hatayis are now in the Ankara Ethnographical Museum. The ablu-

tion fountain which was in the middle of the stone-paved courtyard was removed after repairs in 1951.

There are twenty students'rooms each with small windows, a cupboard and a fireplace. Of these the four in the corners are domed, and the others which have windows giving on to the courtyard are vaulted. The room to the right of the entrance is reserved for cleaning purposes. The front part of the ivan facing the main entrance is open. This was probably for summer use, while those on the sides were classrooms used in the winter.

The façade, the faces of the porticos towards the courtyard, and the pillars are made of yellowish and pink sandstone.

In some parts of the portal white marble and coloured porphyry are used. The walls are made of rubble with vertical and horizontal lines of brick.

According to the three-piece marble inscription above the arch of the door, the medreseh was built by Chelebi Mehmed in 1414.

The Muradiye Medreseh, Bursa.

Founded by Murad II, this medreseh was recently repaired and turned into a dispensary. The building has-unfortunately lost some of its features as a result of these repairs.

The plan of the building is, with minor differences, the same as other Seljuk medresehs. The sides and the north of the courtyard, in the middle of which there is a fountain, are surrounded by porticos. Those at the side are covered by domes with pendentives, while the ones on the north are covered by cloistered vaults. The pointed arches of the porticos rest on capitals widening in their lower parts, which are supported by square pillars. Different columns are used on both sides of the axial arch. The symmetrically arranged side ivans in Seljuk medresehs are not seen here. Behind the northern porticos are quarters reserved for various other purposes. The ivan which was used both as a mesjid and a classroom is on the southern part of the building which is not porticoed. The ivan which forms a large projection outside the building is covered by a dome resting on squinches with stalactites. A large part of the staircase is placed in the terrace forming the floor of the ivan.

The portal with a pointed arch forms a slight projection in the northern façade. The entrance portico which has been widened by

means of two arched niches on the sides is covered by a semi-circular dome resting on a drum surrounded by triangular consoles on squinches vaults with stalactites. The stairs are inside the entrance portico.

The building is also interesting from the point of view of the technique of decoration used in its construction. The walls built of alternating lines of stone and brick, and the frame of the portal have a pleasant and original appearance. Stone and brick are used in the patterns on the pediments of the portal and the ivan. On the arches of the porticos of the courtyard, there is a frieze consisting of checkered patterns made of bricks. Inside this belt and at the same level as the spandrels there are small windows with keel-shaped arches, which have a rhythmic effect and break the monotony. The arches of the windows, cornices, the domes, the ivan and entrance portico are of brick. These domes are covered with tiles.

The lower part of the interior walls of the ivan are covered with hexagonal tiles of turquoise blue. The upper limit of this faience-covered part is bordered with a band of floral designs in turquoise, dark blue, white yellow and dark brown. In this band the colours are separated from each other by a technique never observed elsewhere.

In its plan and original brick work, the Muradiye Medreseh is one of the most interesting Ottoman medresehs in Bursa of the period of the principalities.

The Ak Medreseh, Niğde.

This is one of the finest works of the period of the principalities in Niğde. Made of rubble the walls are faced with stone. It was called Ak (White) Medreseh by reason of the brilliance of its marble portal. It is the only standing specimen of the two-storey medreseh style of this period. It has never been subjected to any alteration. Extending in a north-south direction and built with a porticoed central courtyard this building has a proportionate plan. The main entrance is on the north side. Two stairways on both sides of the entrance lead to two porticoed balconies on the second floor. These balconies which are roofed are open in front and look on to the street. At present these two balconies have been turned into two rooms from which the porticoed parts of the upper floor can be reached by means of two small doors. There are four symmetrically arranged rooms covered with vaults. Thus we see that sixteen symmetrically arranged rooms were

built on two floors. On the lower floor the courtyard is surrounded with a portico consisting of vaults cutting into one another and resting on square pillars. Four rooms covered with vaults on each side open on to these galleries. Above the domed rooms built on both sides of the large two-storey ivan on the lower floor and on the southern façade of the medreseh, there are not other two rooms but two stairways leading to the roof. The arches of the ivan and galleries facing the open courtyard are decorated with plaited hair motifs, the first row of which continues round the first floor and cornice like a ribbon. The door cornices of the domed classrooms and the other vaulted rooms are decorated with geometrical figures. The altar of the ivan is decorated with arabesque motifs.

The portal is one of the finest specimens of the period of the principalities. Richly decorated, this portal rises impressively on the façade of the two-storey building and fully dominates it. It is so richly decorated that those looking at it may completely forget the rest of the building. Such monumental portals were an important architectural characteristic of this period. The stalactite cornice of the portal is a novel feature. The inscription tablets, frames, spandrels, and particularly the columns rising to the full height of the portal, are covered with fine arabesques. The artist carved the finest specimens of the honeycomb design on the capitals, in the niches in fixed frames and on the cornice. The frame of the portal is of marble. There is a three-line inscription over the portal.

Apart from these features of the portal of the Ak Medreseh, the galleries with double bracket-shaped arches, the motifs on the pillars of the porticos were among the novelties introduced during this period. One of the most interesting architectural features of the Ak Medreseh is the joining of the porticos of the lower floor with broken pointed arches to those of the upper floor with plain pointed arches. Another technical characteristic of the building is the fine stone workmanship seen in the arches of the porticos.

The stalactite capital seems to be the predominating type in the Ak Medreseh.

On the lower floor, the ground level of the ivan and porticos is higher than the ground level of the courtyard. There is a well in the centre of the courtyard.

A work belonging to the Karaman Principality, the Ak Medreseh was built in 1409 by Alaeddin Ali Bey, son of Alaeddin Bey of the Karaman family, during the reign of his brother Mehmed Bey.

The Kapiğası Medreseh, Amasya.

Built of stone on an octagonal plan this medreseh is in Amasya. The main entrance, which is on the north-west side of the building, opens on to an octagonal courtyard each side of which is surrounded with a portico having three domes. Each section of the portico leads to a students' room. Covered with domes, each of these rooms has a fireplace, a window and a cupboard. On the side of the octagonal building and projecting outside, is a room with a fairly large dome, and windows on the upper walls. As it has an altar, this part was probably used as a classroom and a mesjit.

According to the inscription on its tablet, the building was built for Abdilmumin oğlu Huseyin Ağa, a chief footman in the palace in 1489. The building is in a very ruinous state to-day. The architect is unknown.

This is the first time that the octagonal plan was used in the Islamic world. Although there are some caravanserais of later date in Iran, we do not know of any other medreseh with a similar plan.

T U R B E H S

The Turbeh of “Mama Hatun”, Tercan

This turbeh is in a graveyard in the township of Tercan, which is 90 kilometres west of Erzurum on the Erzurum-Erzincan highway. When we consider the Anatolian turbehs we see how unique this turbeh is, with its many important architectural peculiarities. In its entirety it consists of two parts, one a “kumbet” and the other the circular wall surrounding the “kumbet”. The inside diameter of the courtyard in the centre of which stands the turbeh is 13.15 metres and the thickness of the stone wall is 2.50 metres. There are 12 niches with pointed arches in the surrounding wall and the depth of these is 1.25 metres, their width is 2.45 metres and the base level 20 centimetres from the level of the courtyard. These are grave niches and, even to-day, in some of them are ornamented and inscribed sarcophagi. In the first small niche on the left of the portal, which is not in the direction of the axis of the turbeh, there is a stalactite decorated fountain and on its right seventeen steps, by which one climbs to the top of the round wall. The surrounding wall, which is 4.60 metres high, is faced with cut stones. There are no ornaments anywhere, except in the portal. The three-metre length of the wall on the right of the portal is 2 metres above the general level, the reason for this being that the stairs have been built there. The top of the surrounding wall is flat so that one can walk on it. The area between the niches in the surrounding wall and the turbeh, that is, the base of the courtyard, is covered with regular stones in five concentric circles, the centre of which is the turbeh.

The magnificent portal, which follows the rotundity of the surrounding wall, is 7 metres high and decorated with Seljuk style ornaments. The entrance is surrounded by a frame which is decorated

all over with arabesques. The upper part of the door is in the form of a pointed arch, which is ornamented with finely wrought stalactites. Above the pointed arch of the door there are two lines of writing and on the projections on the right and left of the door recess there are four lines of writing and geometrical designs. The symmetry and regularity in these writings and designs display a remarkable maturity. Beside, on the little columns on which the moulding arch stands, the names of the Prophet and the first four caliphs are written in «kufi» style characters and they are all in circles. On both sides of the portal there are some niches with pointed arches. These arches are narrow, long and irregular, and are surrounded by geometrical designs. These niches are of a kind which we are not accustomed to see in Anatolian monuments. To-day the portal protrudes from the courtyard wall by 1 metre.

The “kumbet” proper consists of eight half cylinders and rises from an octagonal base, which is 1.20 metres high and stands on a low square foundation. Between these half cylinders is a stone pipe. There is a strong moulding under the short cone which constitutes the roof of the turbeh and this moulding covers all the body and takes the shape of the half cylinders. Above the mouldings is a band decorated with dents. The roof covering the dome is also in eight segments and the thin mouldings here form the two-line ornamental arches. From the point of view of the history of architecture the inside of the turbeh is as interesting as the outside. The eight half cylinders on the outside form eight niches with sharp projections and they join in very regular intervals in the centre of the dome. The masonry here shows a perfection which is one of the best examples of Seljuk art.

The height of the turbeh from the grave level is 10.50 metres. The four steps go down to the dungeon which is vaulted and 2.45 metres high. The six steps on the side go up to the “mesjid” on the first floor. The sarcophagi which should have been there have disappeared.

The turbeh has three windows, one opposite the door and the other two on the sides. The rectangular frames of the windows with pointed arches are decorated with fine arabesques.

According to the inscription, the architect of the turbeh is Ebu’-nnema, son of Mufaddal’ül-Ahval from Ahlat. Even if the name of the architect had not been mentioned we could guess from the shape of the roof that the builder would be either from Ahlat or somewhere nearit.

As there is no date inscribed we do not know when the turbeh was built. Only from a date on a sarcophagus found in one of the niches in the surrounding wall and from the little historical information about Mama Hatun we can guess that the turbeh might have been built at the end of the XIIth century or the beginning of the XIIIth century. We could, however, date the building a little later by considering the style of its ornaments. Although the construction of the turbeh is unique both in Anatolia and the Islamic world, its decoration is typically Seljuk and this fact gives us opportunities for comparison.

The Döner Kümbet, Kayseri.

This building is on the right of the Talas street in the south-east of Kayseri. It shows many elements of the Anatolian Seljuk turbehs in planning and decoration and is a masterpiece among the XIIIth century turbehs. On all sides it is covered with well-cut stone blocks. The base, the outer corners of which are slanted, is in the shape of a square and its cornice is decorated with stalactites. This part, as is the case in all Seljuk turbehs, is the dungeon, that is, the ground floor where the body or the mummy is buried. The cylindrical body of the turbeh is divided into twelve panels by pointed moulding arches and covered with a conical roof. These panels are the most decorated part of the turbeh. Most of the attention and care has been given to the door and to the surfaces of the door. There were reliefs of two symmetrical panthers with wings on the door, on both sides of which stood two columns. The heads of these panthers, most probably human heads, have been destroyed. In the centre of the surface on the right of the door was a palm leaf in a vase. Under this were two birds and lower in the centre of a square surface was the head of a lion, all of which have been destroyed. This decoration was all in relief. This last motif was also repeated on the adjoining surface. The other surfaces of the turbeh are decorated with geometrical designs. The upper and round part of the kumbet is decorated with two rows of arabesques and geometrical designs, and the part above these, that is, the border of the conical roof, is decorated with stalactites. The thin mouldings on the conical roof have sufficiently clearly formed ornamented arches.

On the upper floor, that is in the "mesjid" part, there is an altar slightly on one side as compared to the axis of the mesjid door. The

upper floor is reached, as in many turbehs, by stone steps on both sides. The turbeh is covered with an inside dome. The cornice with moulding between the dome and the walls of the cylindrical body not only provides a transition for the two parts but also brings a change into the simplicity of the interior. The windows opening on to the third surfaces on the left and right of the door are rectangular. The rectangular stalactite niche motifs on the surfaces on to which the windows open are in the same style as that seen on the door.

According to the marble inscription in an ornamented frame over the door, the "Döner Kumbet" belongs to Shah Cihan Hatun. We do not know anything about the history of this person and the inscription does not bear any dates. Only from the planning, the manner of building, the style of the animal and plant reliefs and also from the similarity between these and some well-dated Seljuk monuments, can we place the building of the turbeh in the last quarter of the XIIIth century (1275-1280).

The Sırçalı Kümbet, Kayseri.

This building is located in the large old cemetery in the south-east of Kayseri. In its general outline it represents the continuation of the two-storey Seljuk turbeh style. It is covered with regular stone tablets placed in rows of equal height. The basement of the turbeh where the sarcophagus is placed has a square-shaped floor, but the walls are cylindrical. The turbeh has a high door which is arched at the top and is plainly decorated on the sides, and has three windows. It is clear that the building had once had a conical roof. This is mostly gone now and some broken stones held together by mortar is about all that is left of it. The interior of the building is covered with skilfully placed stone tablets of simple design, and at the top of each corner there is a design combining a twelve-sided prism with a twenty-four-sided prism. Placed on the top there is a circular fringe holding the skirt of the dome. At present the interior of the turbeh is in a very ruined state.

As *sırcha* means tile-work, it is believed that the building was once covered with tiles. There are a few pieces of turquoise tiles around the outside of the walls. The present-day outside appearance of the central roof shows that this was also originally covered with turquoise tiles. As the marble tablet placed on the top of the entrance is without any inscription, the exact date of the building cannot be de-

terminated with any certainty. Nevertheless, taking into consideration some of its features, and the fact that it resembles the Bimarhane in Amasya and the Gdk Minaret in Sivas, the date of the Sirchali Kumbet can be guessed as 1350, a time when many buildings of fine workmanship were produced.

The Yeshil Turbeh, Bursa.

This turbeh in which Chelebi Sultan Mehmed (d. 1421) is buried is a two-storey structure built on an octagonal plan. The lower floor, which is reached by a small door on the north-east, is a vaulted burial chamber. The upper floor reached by the portal, and where we see a number of sarcophagi, is the mesjit. This part is covered by a pointed dome 15 metres in diameter resting on a high drum consisting of triangular consoles. Evliya Chelebi mentions that the dome was covered by green glazed tiles in his time. The exterior surface of the drum was probably covered by tiles too.

There are three windows around the door, one in the drum and two in the walls. The window above is small and has a pointed arch, while those down below are large and rectangular in shape. The interior walls are covered by dark green hexagonal tiles. Of these only a few have survived, and turquoise-coloured tiles were put instead of the original ones in the XIXth century. On both sides of the windows are roundels containing multi-coloured hatayi and rumi compositions. The pointed pediments of the windows are also decorated with inscriptions on faience. On the side facing the door is the altar which is a masterpiece of faience workmanship. The altar is enclosed in four frames which are decorated as follows, counting from outside: hatayi, inscription, stalactites, and geometrical patterns. The pointed arches of the pediments of the windows are also decorated with inscriptions on faience. Palmleaf acroters on the top form a crown. The altar niche, with small columns in the corners and rows of rich stalactites in the upper part, is decorated with candle and candlestick motifs over a floral background inside a multi-foil arch motif. It is almost certain that the altar was also made by Mehmed Mejnun, the artist who designed the tile work of the Yeshil Mosque.

In the centre of the turbeh is the magnificent sarcophagus of Chelebi Sultan Mehmed bearing his inscription in gold-gilt and supported by a rectangular base decorated with rows of small arches

with floral designs of various colours in between; the base rests on an octagonal terrace covered with faience.

The exterior of the building is equally beautiful. A portal with a pointed arch forming a slight projection on the northern side, leads to an entrance portico, a large part of which is decorated with faience. This entrance, on both sides of which there are small altar-shaped niches, is covered by a semi-circular dome with triangular consoles. The date plate of the turbeh is placed above the arch of the portal. The façades, which are covered with turquoise faience, are framed with projected mouldings. Some of these faience tiles have been replaced during repairs. On each side there is a second frame with a pointed arch surrounding the windows; these frames which were originally covered with faience were faced with marble in the XIXth century. The windows and the pediments with pointed arches are surrounded with borders of hatayi and rumi patterns.

The doors which are vaulted and decorated with geometrical arabesques are the work of Hadjı Ali, the son of Ahmed of Tebriz. Ivaz bin Ahi Bayezid, the name of the architect, has been found on the doors.

The Yeshil Turbeh represents a transition between the Seljuk and Ottoman turbehs. Although this work carries on the tradition as far as the plan is concerned, it differs from Seljuk turbehs with its dome, high drum, portal, the arrangement of its windows, and in its interior and exterior decorations, and it indicates a new trend which will be developed later.

The Turbeh Of Shehzade Mehmed, Istanbul,

Situated in the courtyard of the Shehzade Mosque, this turbeh is built on an octagonal plan. The segmented drum constitutes one of the important features of the building. On the outside it is covered with marble blocks decorated with green conglomerate stones and baked red earth. The corner projections rising up to the cornice separate the façades from one another. On the façades, which are framed with double mouldings, are four windows arranged in two rows. Of these windows, those in the upper row have pointed arches, while those in the lower row are rectangular. Two rows of stalactites join the façades to the cornices. An acroter made up of motifs resembling clover leaves circles the turbeh all round above the cornice.

The turbeh is reached by an entrance portico decorated with faience. The interior walls are covered with beautiful tile work in which the colours yellow and green predominate.

The architect of this turbeh of superior workmanship is Sinan the Great, who built it in 1543-1544.

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KIOSKS AND PALACES

The Alaeddin Kiosk, Konya,

This kiosk is at the northern foot of the Alaeddin hill in Konya. The narrow front of the ruins of this kiosk faces the north, and the long front to the east and partly to the west. The small part now standing which is in a very ruined state is from eastern section of the kiosk. The kiosk built on a tower of the inner castle once had a rectangular appearance. Although it is now in a very ruined state, it is to a certain degree possible to describe it with the help of old pictures. The kiosk was originally built with red bricks in two storeys and its lower part which was ten metres high was covered with cut stones. It is noticeable that between both the stone and red brick parts were wooden beams stretching in certain directions. Only two niches exist in the front, in which there were lion statues, and these break the monotony of the massive lower part. Around the three sides of the upper storey were balconies built with cut red bricks each supported by three corbels with stalactites projecting from the walls. On the northern balcony there was a large door with similar pointed arches. These façades of the kiosk were faced with glazed bricks and tiles of bright colours, which created a favourable impression on spectators. These tiles represent the best of Seljuk pottery of the period and indicate that the kiosk was decorated with various kinds of tiles clearly distinguishable from each other.

In the first category there are tiles with geometrical patterns, especially patterns of zigzagging ribbons. In the second, patterns of stars and crosses in contrasting colours, representations of cavalymen and sphinxes, pictures of men standing and sitting cross-legged are predominant.

These representations help us to increase our knowledge of Seljuk pottery and place decorations in Anatolia. The interior of the

square hall forming the upper floor of the kiosk was decorated with reliefs in plaster. In these reliefs, as in the tiles, human figures are dominant. Among the figures in the reliefs, those of men sitting cross-legged and of sirens, double eagles, peacocks and panthers are rather interesting.

The tiles and reliefs of the Alaeddin kiosk are now being exhibited in the Museum of Islamic Arts in Berlin, in the Chinili Kiosk in Istanbul, in the Louvre, in the Musée des Arts Decoratifs in Paris, in the National Museum in Stockholm, and in the Museum of Tiles in the Karatay Medreseh in Konya. Apart from these, there are some very valuable works in private collections.

Among the tiles forming the exterior frame of the door in the north of the kiosk, some portions of the inscription have survived. According to this inscription the kiosk was built by Kılıç Arslan II (1156-1192). However, some specialists who have studied the technique and style of the tiles claim that the kiosk belongs to Kılıç Arslan IV (1257-1267).

The palaces of the Seljuk sultans in Konya were probably groups of various kiosks and residences. This belief was confirmed by the excavations done by the late Remzi Oğuz Arık around the kiosk on the Alaeddin hill in 1941. This kiosk is, as a matter of fact, a detail of a largely organized Seljuk palace which was situated further to the south. Some of the foundations of this were unearthed during the excavations.

This kiosk, which we have tried to describe from old pictures and its tiles now being exhibited in various museums in the world, is one of the best and oldest works of secular Seljuk architecture.

The Chinili Kiosk, Istanbul.

This kiosk, the former name of which was the "Tiled Palace", is the most important building to give us an idea of civilian architecture of the time of Mehmed the Conqueror. The architect of this kiosk is unknown. It was finished in 1473 according to the inscription over the entrance door.

The building has two storeys. The upper one belonged to the sultan and the lower one to his attendants. The two floors differ from each other only in minor points of arrangement. Generally speaking the plan consists of a rectangle. There is a central hall composed of

two crossing anterooms, one along the length and the other along the width of the structure, with ivans before the side anterooms, four rooms in the corners and a room which makes a five sided projection on the outside of the west wall. In its plan, the kiosk reminds us of Bursa type buildings, which have a four-ivan arrangement. The ground floor is reached by a staircase from the floor of the room in the corner on the right. This room and the one opposite to it are covered with one full and one half dome supported by ribbed triangles and have six windows in two rows, one above the other. The side and the back extensions of the cross-like centre hall are covered with half domes supported by ribbed triangles and the forward extension with a full dome. On each side of the dome drum, supported by stalactite tromps of the centre section, there are three windows, the middle windows bigger and the side ones smaller. Three metres from the floor up the walls of the open ivans, covered with straight vaults stretching lengthwise, are all decorated with tiles. Although there are no tiles remaining on the arch of the right ivan, those on the arch of the left ivan still remain. The insides of the recesses, too, are covered with tiles. The rooms on the right and left overlooking the park are covered with one full and one half dome, like the other rooms. The walls of the room on the right are covered to a height of two metres from the floor with hexagonal dark blue tiles with turquoise borders. The walls of the room on the left are covered with tiles decorated with triangular and hexagonal designs. The hexagonal projecting room is decorated with hexagonal dark blue tiles with white and turquoise borders. It is covered with a dome supported by stalactite tromps. The entire building is surrounded by stalactite eaves jutting out a little. All along the front of the building extends the portico with its low and pointed arches, supported by fourteen slender octagonal columns. The portico must have been built during the reign of Sultan Mahmud I or later, judging from the following: the roof vaults do not combine with the walls; the arches are joined to the tiled arch corners in the entrance ivan; the stretchers have not been put up normally but carved in; the column bases and capitals have an XVIIIth century appearance and the portico and the main building do not harmonize.

One of the peculiarities of the Chinili (Tiled) Kiosk, as we can see from its name, is the exquisite tiles decorating both the front of the building and also the walls of the rooms. The tiles outside are wrought like mosaics, in colours of yellow, turquoise, dark blue and

dark green. The main door is in a three-metre deep ivan with a pointed arch. The plaster window on this door is of later origin. In the middle of the ivan arch on a turquoise base, the words in "kufi" characters "tevekkuli Ala Haliki" have been written four times in tiles of dark blue borders and in mosaic form. Also the arch tablet is decorated with white and dark blue tiles like mosaics, on a background of turquoise. On three sides of the entrance and on a level with the upper end of the door is the building inscription bordered by a pattern of flowers. The inscription has two lines of writing in white and orange on a background of dark blue. The necessity of following the contours of the land has led to the building of another storey at the back, the face of which is relieved by four rows of windows parallel to one another. This face, like the front one, is covered with dark blue, turquoise and red tiles.

The Chinili Kiosk is one of the most beautiful and striking XVth century productions of Turkish architectural and ornamental traditions which take their origin from Central Asia.

The Topkapı Palace, Istanbul.

When Sultan Mehmed II captured Istanbul he ordered a palace to be built in the place where the Byzantine Senate was, and where the University is to-day. The palace, which was built in a year, was burnt down at the time of Suleyman the Magnificent. Perhaps because Mehmed the Conqueror did not like this palace, the building of the Topkapı Palace was started soon after the first one had been destroyed. Therefore, the first palace was called "Eski Saray" (The Old Palace) and the second "Yeni Saray" (The New Palace). The name "Topkapı" was given later and is derived from the Topkapı Palace built by Ahmed III behind Topkapı, which was fortified by artillery. This palace was burnt down in 1863 at the time of Abdulaziz and its name was given to the New Palace and it has retained it ever since. The New Palace is not one building, but consists of various pavilions and kiosks. In this group of buildings the erection of the kiosks was started first. Among these, the Chinili Kiosk takes the foremost place, because of its antiquity and beauty. It was completed in 1478, at the same time as the palace walls. The Topkapı Palace covers a wide area of 700,000 square metres, from the side of Aya Sophia to Sarayburnu. This plot is in the shape of a triangle and is bounded on two sides by the sea walls and on the land side by a wall

called "Sur-u Sultani" The whole of this wall was completed by Mehmed the Conqueror. The palace has seven large gates, four on the land and three on the sea side, all opening into the wall. The gates on the land are called "Otlu Kapı", "Bab-ı Humayun", "Soğuk Cheshme Kapısı" and "Demir Kapı". The gates in the sea wall are called "Topkapı", "Değirmen Kapısı" and "Balıkhane Kapısı". The main gate of both the palace and the wall is "Bab-ı Humayun". (The Imperial Gate.) For ceremonial occasions this gate was used. This gate, which looks like a triumphal arch, was built in 1478 at the time of Mehmed the Conqueror according to the inscription and has been repaired several times. This can be seen from the "tugras" (signatures) of Sultan Mahmud and Sultan Aziz. This structure consists of two doors close to each other and a high pendentive tower. Upon entering by the first door we see the sentinels' rooms. By them are two flights of stairs which lead to a terrace surrounded by a stone parapet. Built over the gate was a kiosk of the time of Mehmed the Conqueror. The fact that there was a kiosk there once can be seen from a miniature in the first volume of "Hunername" which showed Bab-ı Humayun with the rooms above it and from an engraving made by Melling in 1800 and by Allom in 1830. These rooms were burnt in 1867.

After entering by Bab-ı Humayun we come into a 300 metre long opening in which are the Military Museum and the Mint. This is the first yard of the palace. There is no trace of the work of Mehmed the Conqueror here. The curved road from Bab-ı Humayun takes us to another gate with two towers. This is called the Middle Gate or "Bab-u's Selam". By this gate we enter the second yard in which official business was carried on, here the "Divan" (The Council) met and the Janissaries were given their pay. On the right of this gate are kitchens with twenty conical domes and chimneys, built by Sinan. On the left stands a building with wide eaves and decorated walls and balustrades. This building was the "Divan" where the viziers met and it was called "Kubbe Altı" (Dome chamber) All the affairs of the Ottoman Empire were directed from this building. The square tower behind the Kubbe Altı was built to watch what was going on in the palace grounds. After coming through the iron gate at the side of Kubbe Altı and passing through the long corridor on which were the apartments of the "Kızlar Ağası" (the chief of the white eunuchs) and the coloured "Harem Ağaları", the chief of the black eunuchs, we come to a bronze door and this

is the actual entrance to the harem. According to hearsay, the building of this pavilion was started at the time of Sultan Suleyman the Magnificent and was built without a definite plan. Then new additions were made to meet certain needs and so it has now a very confusing aspect with its side ways and arched corridors.

When we pass through the third gate, which is called "Bab-u's Saade", (The Gate of Felicity), at the end of the second yard, we come into the third yard, which belonged to the Sultan himself. The building in front has a portico around it and its base up to floor level was made at the time of Mehmed the Conqueror. This building is called "Arz Odasi" (The Throne Room). And was repaired many times from the period of Yavuz Sultan Selim to that of Sultan Aziz. The inside consists of a small hall. Sultan Suleyman the Magnificent, although such a great ruler, had his official receptions there.

The fourth yard is on a terrace overlooking the Bosphorus, where the "Mustafa Pasha Kiosk", "Revan "Kiosk", "Bagdad Kiosk" and "Mejidiye Kiosk" were built later.

The fifth yard, to which one could pass from the fourth one, was later turned into a park.

The Bagdad Kiosk, commanding a god view of the Bosphorus, is one of the best preserved and most beautiful buildings of the New Palace. It was built by Sultan Murad IV in 1638 to commemorate the capture of Bagdad. The Kiosk is octagonal in plan and projects outwards on four sides. It is covered with a dome and surrounded by wide eaves and porticos supported by marble columns. The lower part of the outer walls has been covered with veined marble and coloured stone slabs up to a height of two metres, and the upper part has green and blue tiles on a background of white. The tiles on the borders are set against a background of blue. The tiles represent Chinese clouds, pea leaves and various other leaf designs. The frames of the doors, windows and cupboards are of ebony and decorated with ivory and tortoise-shell. The inner walls and the arches up to the dome have been covered with most exquisite tiles. The large tile panels on the right and left of the fire-place are decorated with pictures of blue birds on a background of white and these panels are some of the most beautiful examples of XVII century tiles. The kiosk has thirty-two windows in two rows, one on top of the other. Between these two rows of windows is written in white "sulus" characters "Ayet-u'l Kursi" on blue tiles. The writing is by Enderuni Mah-

mud Chelebi of Tophane. The exquisite pendentive dome of the kiosk is covered with light relief work and gilding. The wooden ceilings of the four projections are covered with various geometrical designs.

Among the group of buildings constituting the Topkapı Palace the most important and the most beautiful is the Chinili (Tiled Kiosk) from the point of view of the singularity of its plan and ornaments.

CARAVANSERAI S

The Emdir Han, Antalya.

This caravanserai is located 18 kms. north of Antalya and 4. kms. west of the Antalya-Burdur road. It is the first in the chain of caravanserais extending northwards from Antalya. The building is covered with regularly cut stone tablets on some of which the masons have put their mark. The building has no roof. Built in a north-south direction, the Emdir Han is unlike any of the Seljuk caravanserais in Anatolia. It can be said that the Ottoman caravanserais developed from this type.

On four sides of the large square courtyard measuring 34×38 metres are barrel vaults 7.30 metres high and 3.65 metres wide, with pointed arches and short pillars. Those in the middle are in the form of an ivan, a little higher and wider than the rest. There is not a single closed room between them. The Emdir Han is a summer type of caravanserai, which was suitable for Anatolia. Measuring 78.80×45.30 metres the walls of the building have rectangular buttresses on the outside.

The main entrance which is decorated has a low arch. The altar, like the niches of the entrance and the arch-moulding, have stalactite designs.

The 8 metres wide entrance projects 2 metres out from the wall and has a plain little column at each end. The portal is decorated with geometrical figures. The rooms which were originally on both sides of the entrance are no longer in existence. This caravanserai which is unique in Anatolia as regards its plan has close ties with other Anatolian buildings as far as the technique of masonry is concerned.

The Emdir Han was built by Izzeddin Keykavus I (1215-1219), son of Giyaseddin Keyhusrev.

The Sultan Han, Aksaray.

This caravanserai is located on the Konya-Aksaray road, 42 kms. west of Aksaray. The first station towards Aksaray is the Ak Han, and towards Konya the Obruk Han. This building derives its name from the sultan who built it. It lies in a south-west direction, and consists of two parts: The inn proper, which is covered, and the courtyard in front of it, which is open. The covered part has a very high and pointed vault over the central nave on both sides of which there are nine other naves at right angles to the central nave. All these are supported by 32 symmetrically arranged thick square stone pillars. The vault of the central nave is supported by arches with plain consoles. There are no supporting arches on the side naves. In the middle of the central nave there is a dome resting on an octagonal drum. The supporting arches under the dome are decorated with friezes. Plain and conical vaults with pointed arches are filled with stalactite niches. Four round-arched windows narrowing towards the outside like loopholes let in light. The pendentives on which the dome rests are in good condition. A round-arched window was opened high up on the wall of the central nave. Similar windows were also opened on the left outside wall, and on the second, fourth, sixth, seventh and eighth side naves.

The main entrance has a pointed arch. Although the upper part of the portal, which appears from outside as a large protrusion in the shape of a rectangle in front of the covered part, is in a ruinous state to-day, it is believed that it was originally over two metres high, and covered the conical vault of the central nave. The outside frame of the portal is decorated with various kinds of geometrical motifs and rosettes. These decorations are very skilfully made.

The tympanum of the niches have eight rosettes spaced at unequal distances. The arch of the pointed niche, which is very high, is fitted with eight rows of stalactites. In the lower part of this is a circular row of rosettes. This arch rests on consoles with large stalactites. Below these are two symmetrically arranged niches resembling an altar, which are in rectangular frames decorated with various motifs. The width of the roundarched entrance is three metres. In the narrow space between the stalactites and the arch is an inscription extending sideways. The spaces left on the two corners here are filled with rosettes.

On the outside of the long façade of the covered part are three solid supporting towers built symmetrically; the first and third are five-sided, while the one in the middle is semi-circular. The two towers at the back and in the corners are square.

There are ten partitions 8.80 metres deep, in double rows, open in the front and vaulted towards the length of the courtyard. These rest on nineteen pillars. There are no supporting arches. The eleventh partition in the corner looking towards the façade can be seen from the courtyard. The pediments of the partitions are decorated with geometrical figures and friezes. On the left side of the courtyard there are ten vaulted rooms. The first and fifth, which are divided into three smaller rooms, are vaulted at right angles to the rest. Six of the rooms have windows.

In the middle of the courtyard is the kiosk-mosque, which is of a square plan measuring 7.85×7.85 metres. The mosque rests on four pointed arches and is supported by four thick pillars in a very ruinous state. However, the stalactite designs of the tromp on the left corner and its wonderful altar in the middle of the wall are still standing. This altar is one of the finest works of Seljuk architecture. It is in the form of a five-sided niche. Three of these have half-domes filled with stalactites and the upper parts in the form of a semi-circle. On the pediments of these there are big rosettes. The half-dome of the altar, which is filled with stalactites, rests on corner pillars with capitals. The exterior of the mosque is impressively decorated. The decorative bands near the corner, the interlacings, the large rosettes on the main surface, the decorations round the sides of the corner stones of the pillars suit the building harmoniously, and the massive construction acquires a graceful appearance. The roof of the building was probably flat and the dome low. The two stairways facing one another have disappeared. The mosque is one of the oldest specimens of the kiosk-mosque. The prototype of this form was the mosque of the Kızıl Ören Han.

The portal of the courtyard projects 2.25 metres from the front wall. Its width is 10.70 metres and height 13 metres. The arch-moulding with stalactites, which is very high, is surrounded by a decorated low pointed arch. The lower part of the space below the arch-moulding and the arch are decorated in the same way with a tablet and inscription. The two extremities of the lower part of the arch, which is without decoration, rest on consoles. The inside of the poin-

ted half-dome is filled with ten rows of stalactites, and the lower space with arabesques. This part rests on both sides on consoles with stalactites. The corner pillars are round and form zigzags. Their capitals consist of three rows of acanthus leaves, and their pillars are box-like. On each side and on the polygonal plane there is a small niche with spiral corner pillars. The interior of the niches are decorated with interlacings and their upper parts with arabesque friezes and an inscription. The stalactites of the niches are plain and their rectangular frames are decorated with interlacings. The original inscription is below the stalactites of the arch-moulding and over the small altars. The outside frame of the portal is skilfully decorated with various friezes consisting of geometrical motifs, interlacings, stars, winding ribbons, zigzag designs, etc. The portal faces the barren plains of Konya on the major caravan route and is an impressive work of art. The entrance is 2.75 metres and no longer has its original form. This part was repaired in 1278. Outside the courtyard and on the façade, there are two supporting square towers, of which the front parts consist of three half supporting pillars. The one on the left has been destroyed. The towers on the corners of this side are seven-sided. The towers on the sides are symmetrical, and as with the towers of the closed part, they alternate between a semi-circular and five-sided form.

Both sides of the surrounding walls, which are built of rubble, are covered with variously coloured and carefully placed limestone tablets of regular size. The width of the wall is 1.50 metres. The portal of the courtyard and the towers on its left and right are made of marble. The decoration of the portal in general introduced important innovations in the building of such portals.

Many parts of the caravanserai are in a state of ruin to-day, but they are being restored.

One of the most important buildings of the Anatolian Seljuks, the Sultan Han was begun in 1229 by Sultan Alaeddin Keykubad I. We do not know when it was completed. We know, however, that it was damaged in 1254, and repaired in 1278. It was further repaired in the XIVth century.

The Sultan Han is the largest of the Seljuk caravanserais. It is not, however, the oldest of these buildings. The Evdir Han was built between the years 1210 and 1219. The Alay Han, another Seljuk caravanserai, is even earlier, but to-day it is almost completely

ruined. Therefore, the Sultan Han to-day represents the oldest and the most impressive of the Seljuk caravanserais of central Anatolia. It is the first in the line of major caravanserais built between the years 1229 and 1246, viz. Agzıkara Han, Saadeddin Han, Sultan Han near Kayseri, Incir Han, Obruk Han and Karatay Han.

The Alara Han, Antalya.

This caravanserai is located in the neighbourhood of the village of Okurcala to the right of the Alanya-Antalya road on the left bank of the stream Alara Chay, and at the foot of the Alara Kale (castle). The Alara Han was a caravanserai serving the roads going from Alanya to Konya and Antalya. The first station in the Antalya direction is the Sharafsha Han, and in the Konya direction the Kargı Han.

Measuring 39×51 metres, the building extends in a north-south direction. As the ground was not suitable for the construction of a courtyard, the architect had to build a caravanserai completely different in plan from the other Seljuk caravanserais.

The essential part of the building is the central courtyard measuring 27×5 metres. On the right and left of this are eight symmetrically arranged rooms and six ivans. Each room has a window opening on to the corridor at the back. All the arches are of the pointed type. The arches of the ivan rest on consoles. The rear of the courtyard is closed. On the front there is a round-arched door 2.75 metres wide, and a square front courtyard measuring 7.50×7.50 metres. A 3 metres wide vaulted corridor leads from here to the outside naves which have the same width and are without buttresses, and vertical to the nave at the back, which opens to an inner corridor, the vault of which rests on two supporting arches. With the exception of the narrow windows, these have no connection with the courtyard. Light comes through triangular loopholes opening on to the outside naves. The main door is fixed on the axis of the inner courtyard. There are two rooms on each side of the portal; two of these have doors opening on to the corridor, and the other two have doors opening on to the front courtyard. On the left there is a square cell with cloistered-vault, and an oculus with a decorated frame. The arches of this cell rest on consoles with multi-profiles. A staircase leads from here to the roof.

It has not yet been established with certainty whether there was originally a room here that could be used as a mosque.

The width of the doorway which has a round arch is 3.50 metres, but it is in a state of ruin. It is not possible to determine whether the door was originally decorated or not. There is an inscribed tablet in the niche above the door arch with plain mouldings which are supported by two lionheaded consoles.

The building has three triangular, solid buttresses. The roof is flat.

As explained above, the form of the Alara Han caravanserai has been determined by the condition of the terrain. The building rests on a slope on the left side. The façade, the right wall and all the walls of the courtyard, the pillars, arches, supporting arches, and all the walls of the room with a well are faced with carefully cut stone tablets. Only the lower parts of the vaults are covered with stone, the rest being covered with rubble and mortar. With the exception of the doorway and the right half of the façade, the building is in good condition.

According to its inscription the Alara Han caravanserai was built by Sultan Alaeddin Keykubad I in 1229-30 or 1231-32, that is to say, at about the same time as the Sultan Han caravanserai near Aksaray, which was built by the same Seljuk Sultan.

The Alara Han caravanserai has a unique plan. The closed and open parts in the building are merged into one another. It approximates to the caravanserais of a courtyard type of Southern Anatolia.

The most important feature of the building in relation to the history of architecture, is the reduction of the size of the inner courtyard and the absence of a door leading from here to the covered sections of the building.

The Susuz Han, Near Burdur.

This caravanserai is situated near the village of Susuz Köy on the Antalya-Burdur highway. To-day only its covered part, built on a square measuring 26 × 26 metres, exists. The pendants of the dome have three rows of stones and the dome itself has six. There are sixteen stone pillars in the interior in four horizontal rows. There are two naves vaulted vertically on the right and left sides of the domed middle nave with a long vault over the axis of the door. This indicates that five of the vaults are on the right side and the other five on the left of the middle nave. The supporting arches of the middle vault

rest on the corbels and have a sharp profile. The width of the middle vault is 4.90 metres, and that of the others 4.40 metres. There are windows in the covered part.

It is concluded that although ruined, the upper part of the portal which projects two metres from the wall of the main structure and is 7.50 metres wide, is two metres higher than the wall with which it is connected. The drum decorated with very narrow arabesques is encircled by a pointed arch. The front part of the drum within the pointed arch is decorated with a net of very thickly arranged arabesque leaf badges of unusual design.

The two triangular spaces between the upper exterior frame of the portal and the pointed arch have each a gulche (boss) pattern facing one another. The arch moulding with seven rows of stalactites rest on corner columns with decorated bases and capitals with acanthus leaves. The back of the deep niches on the right and left sides of the cell near the door have polygonal shapes and stalactites in four plain rows. The small column heads on the sides of the niches bear the same patterns as those of the large column.

Half-way between the lines of the niche arch there is the figure of a human head on both sides of which are two snake-like dragons with wings and two heads facing each other. Apart from this, over the right and left sides of the niche arches are two figures of flying angels, all of which are in high relief. The space round the detail of the portal is decorated with geometrical patterns and with plaited badge and tooth designs.

The exterior walls of the caravanserai are supported by towers with four or more surfaces. When examined, it can be concluded that on the front and left side of the caravanserai there was a part with porticos and on the right there were rooms with vaults.

The workmanship in stone and the technique of the stone slabs in this caravanserai are excellent. Although the portal is highly decorated it lacks an organic unity.

The inscription of the caravanserai has not survived. It is, however, in many ways similar to the Injir Han Caravanserai. Therefore, it is highly probable that the Susuz Han belongs to the period of Giyaseddin Keyhusrev II and was completed some time before 1246. The style of the caravanserai is also suggestive of this period.

The Yeni Han, Sivas.

There was once an inn of the late Ottoman period situated near Yıldızeli on the Sivas-Amasya road. There are now no traces left of this building. The fact that some glazed pieces and a marble tablet bearing the name of Ebu Said Bahadır Han were found here point to the existence of an earlier building of the time of Ilhans in the same place, although this is merely a supposition. From the point of view of plan, the Yeni Han has one feature which differs from all Seljuk and Ottoman caravanserais with the exception of one.

In the middle of the building runs a corridor 7.30 metres wide with 18 shops with semi-circular arches on each side. Through the two gates facing each other half-way down the corridor one can reach two large halls with flat mud roofs. The hall of the one on the north, is supported by 30 and the one on the south by 21 pillars. As there is a small mosque on the eastern side of the southern hall, and a bath on its northern side, it is small in comparison to the other hall. The existence of benches on the north side indicates that this was allocated to travellers and the southern hall to animals.

There are windows in the walls. The doors are without any decoration. The arches of the doorways are circular, while those of the niches on the sides have pointed arches.

From the plan of the building we understand that it was used both as an inn and as a market place. The design of the arches of Yeni Han is identical with that of Öküz Mehmed Pasha Caravanserai in Ulukışla built in 1619. It is therefore very likely that it was built towards the end of the XVIth century or at the beginning of the XVIIth century. The Yeni Han is one of the buildings which show that during the Ottoman period caravanserais differing from older ones were built and that they sometimes served as market places.

The Kurkchu Han, Istanbul.

Built at the intersection of Mahmud Pasha and Chakmakçılar streets in Istanbul by Mahmud Pasha, the Grand Vezir, probably in 1467, this inn is one of the largest Turkish inns for size and the number of its rooms. It consists of two sections each with two storeys, one of rectangular and the other of polygonal design. It measures 130 × 65 metres. In both sections and behind the domed

and vaulted porticos surrounding the courtyards, are a total of 167 rooms. The windows of the rooms of the lower floor look on to the courtyard, whereas those of the upper floor look both on to the courtyard and the street. The inn has to-day only one door which opens from the first courtyard into the Mahmud Pasha Street. Inside and on both sides of the arch in front of the door are two symmetrically arranged stairways leading to the storey above. The walls are made of rubble. With the exception of the stone arches in the second courtyard, the arches and the domes are made of brick. The pillars are of cut coarse sandstone. On the whole the building does not show good and careful workmanship.

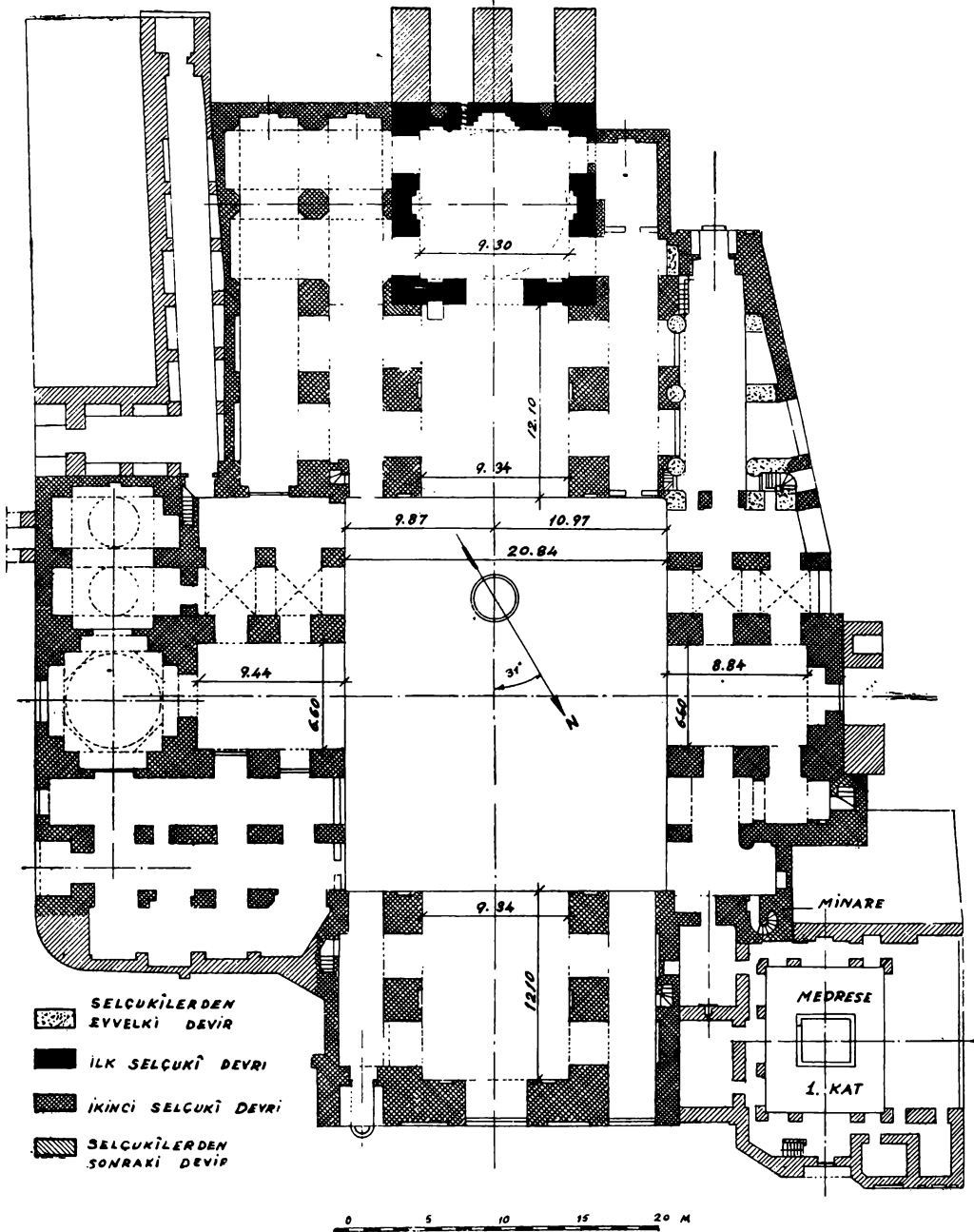
Although it has undergone some major repairs, the inn is at present in a very dilapidated state. The second courtyard in particular can hardly be recognized.

E R R A T A

We regret that some mistakes have been made in the subtitles of the plates XI, XIX, XXI, and XXXVI during printing. The correct subtitles are as follows.

- XI. The Mihrap of Yeshil Turbeh.
- XIX. The plan of Suleymaniye Jami.
- XXI. The plan of Shehzade Jami.
- XXXVI. The Mosque-Medreseh of Murat I, Bursa.

PLANS and FIGURES

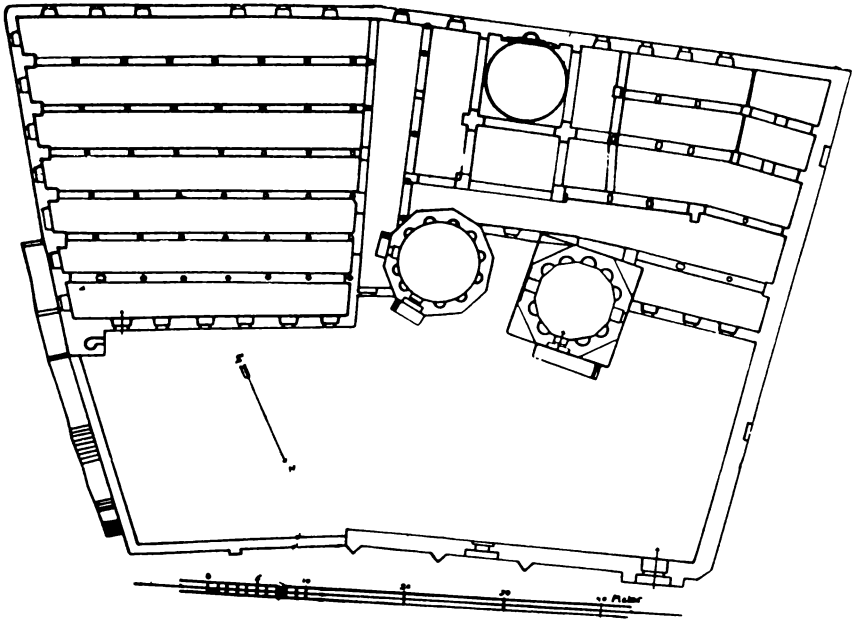


PLAN OF MESJID-İ JUM'A, ISFAHAN

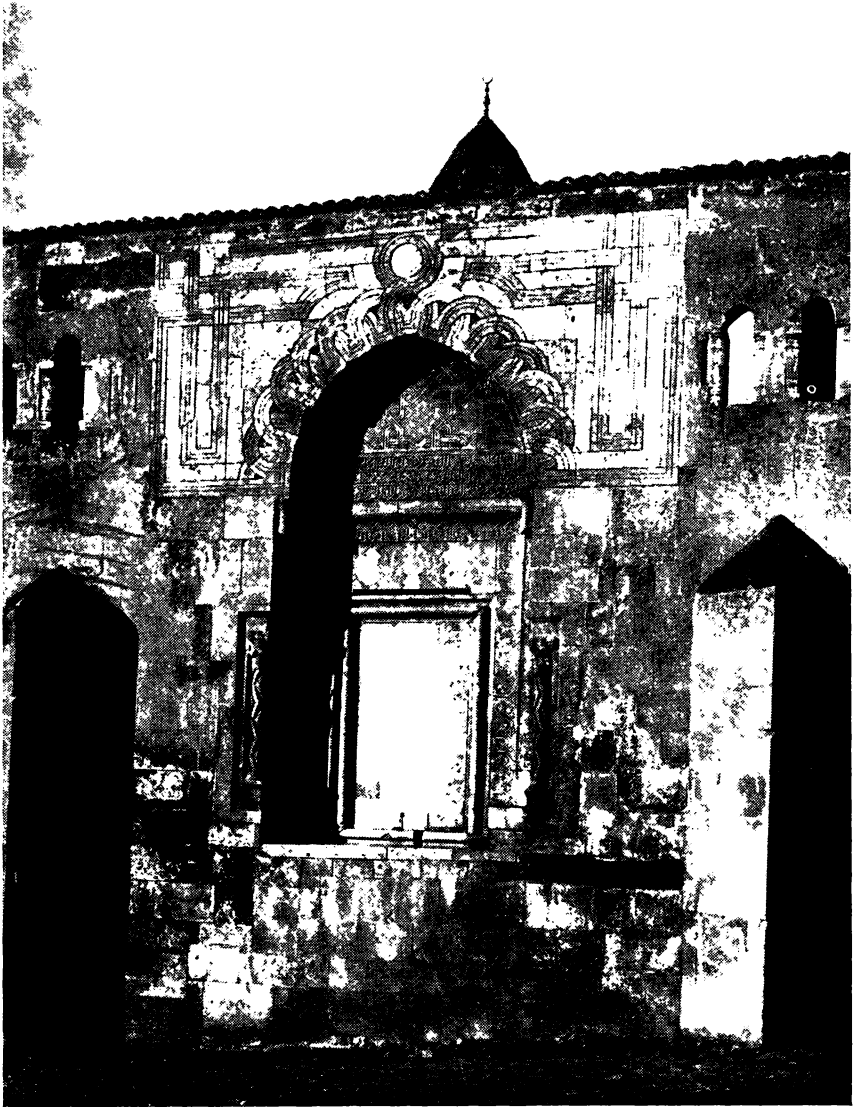


THE MESJID-I JUM'A, ISPAHAN

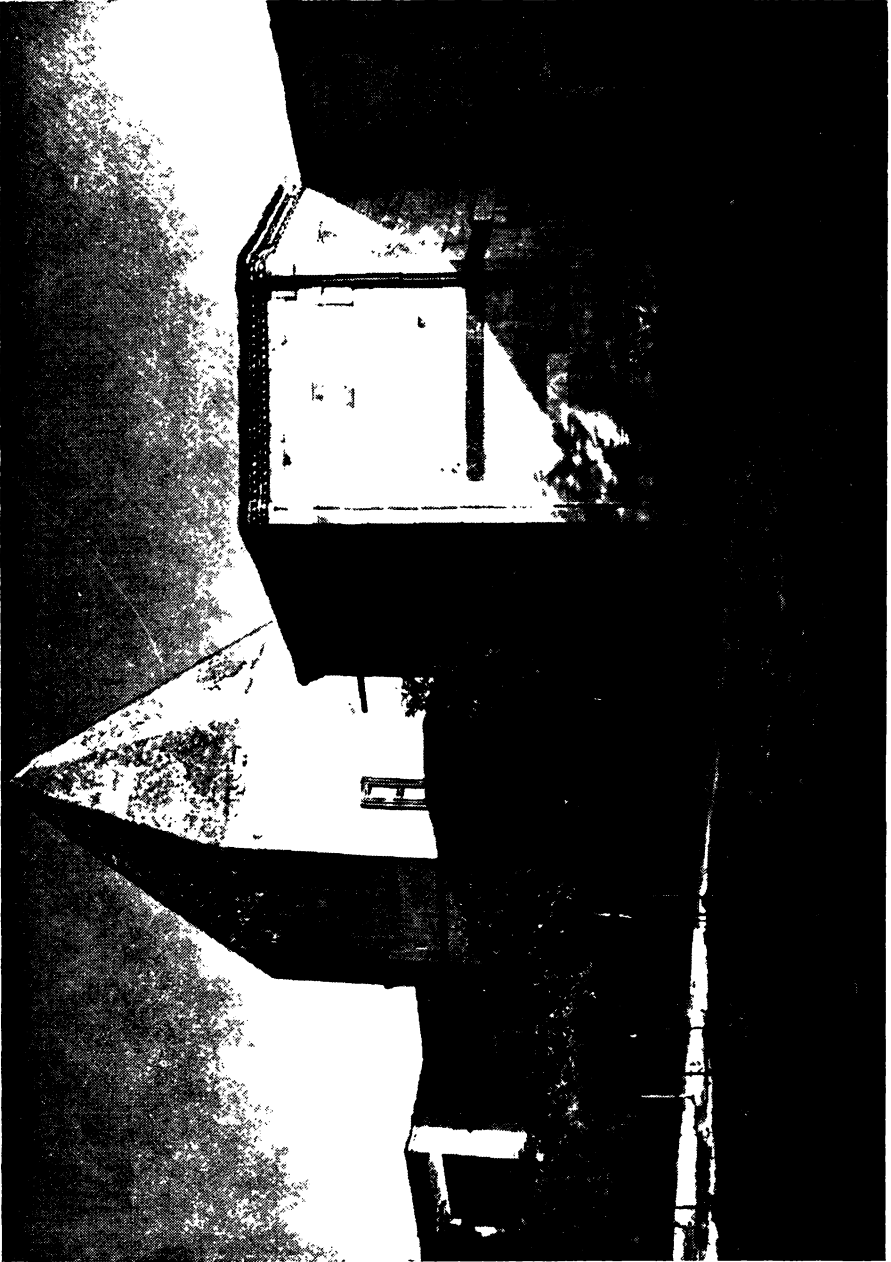
PLANS AND FIGURES III



PLAN OF ALAEDDIN JAMI, KONYA

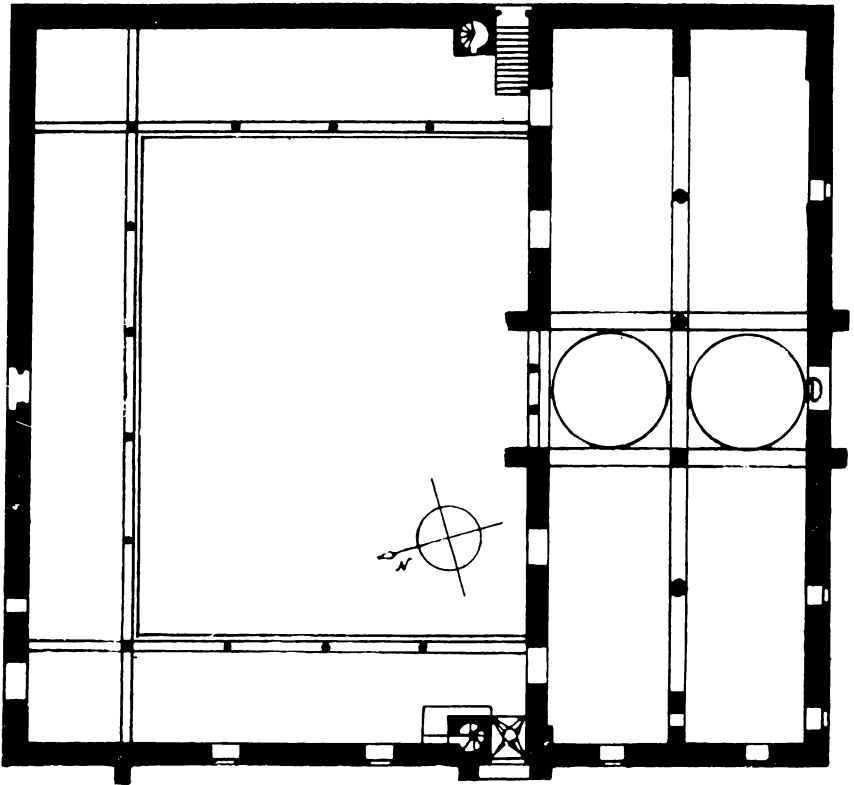


THE NORTHERN FAÇADE OF THE ALAEDDİN JAMİ, KONYA

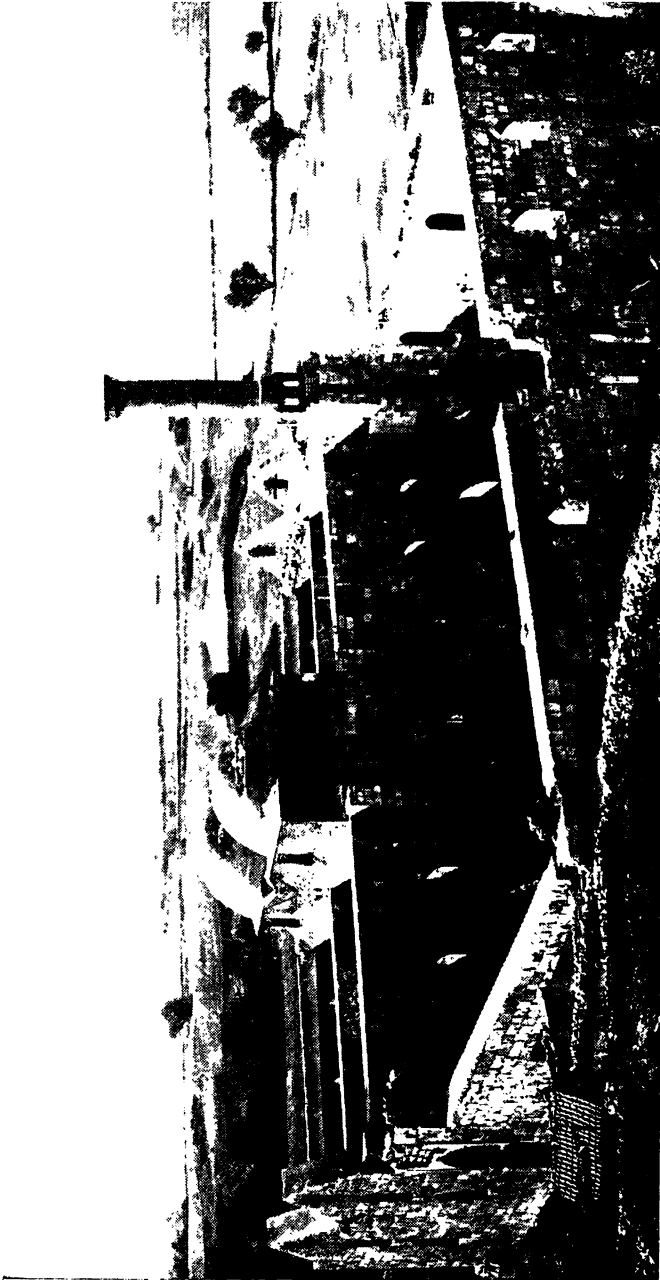


A VIEW OF THE TURBEEH IN THE COURTYARD OF THE ALAEDDIN JAMI, KONYA

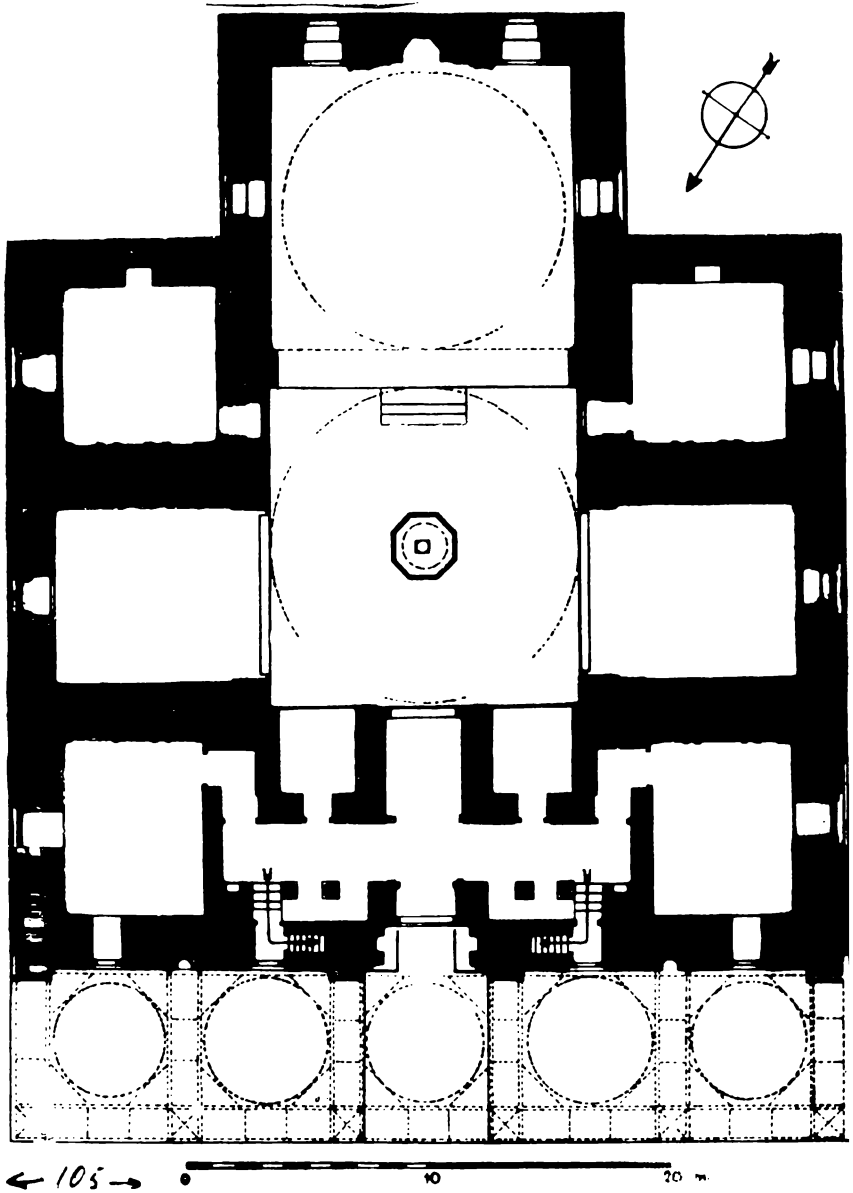
P*ANS AND FIGURES VI



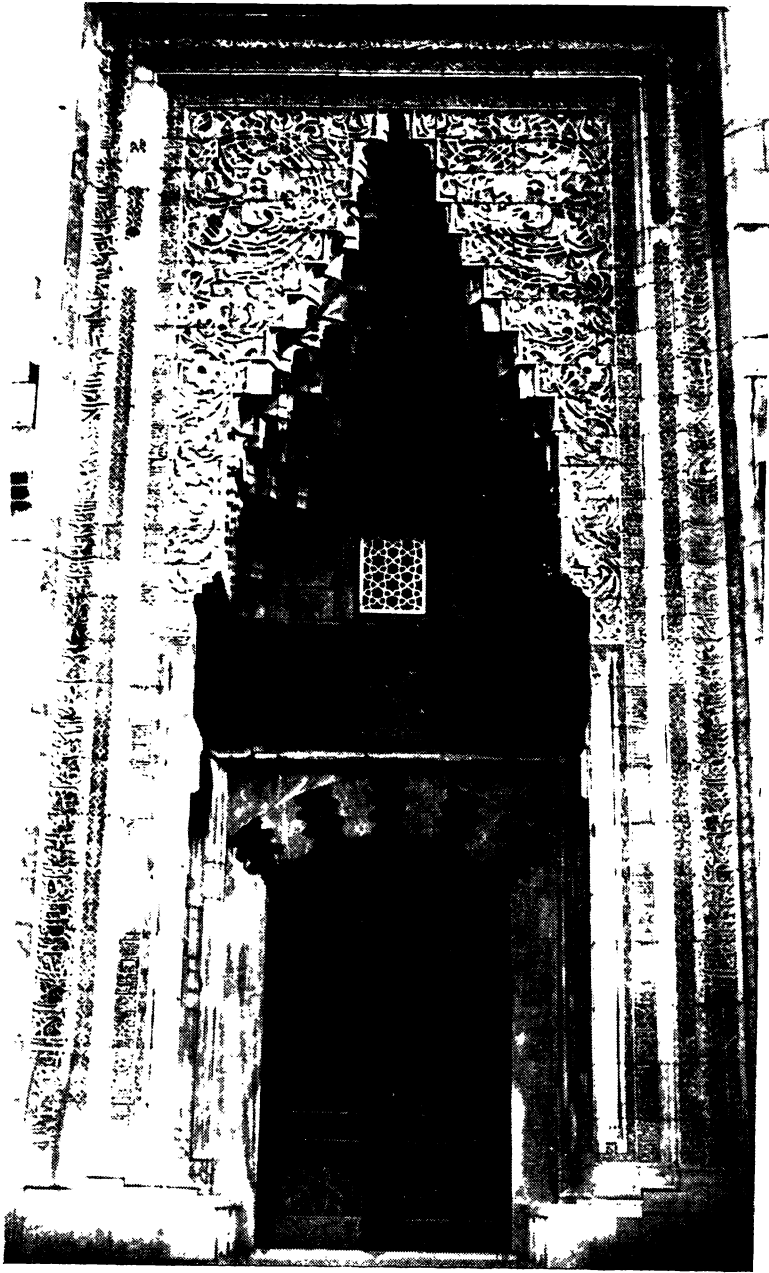
THE PLAN OF THE ISA BEY MOSQUE, SELÇUK



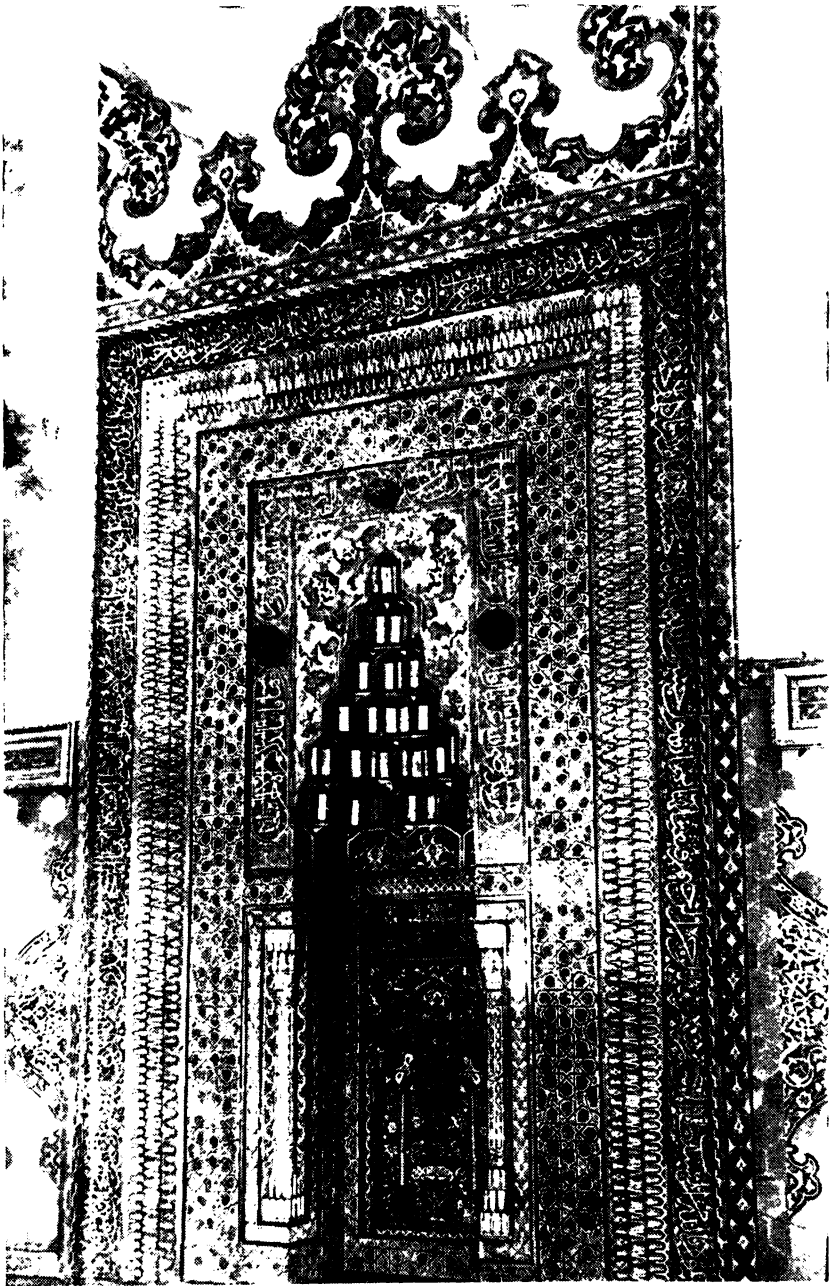
THE ISA BEY MOSQUE, SELÇUK



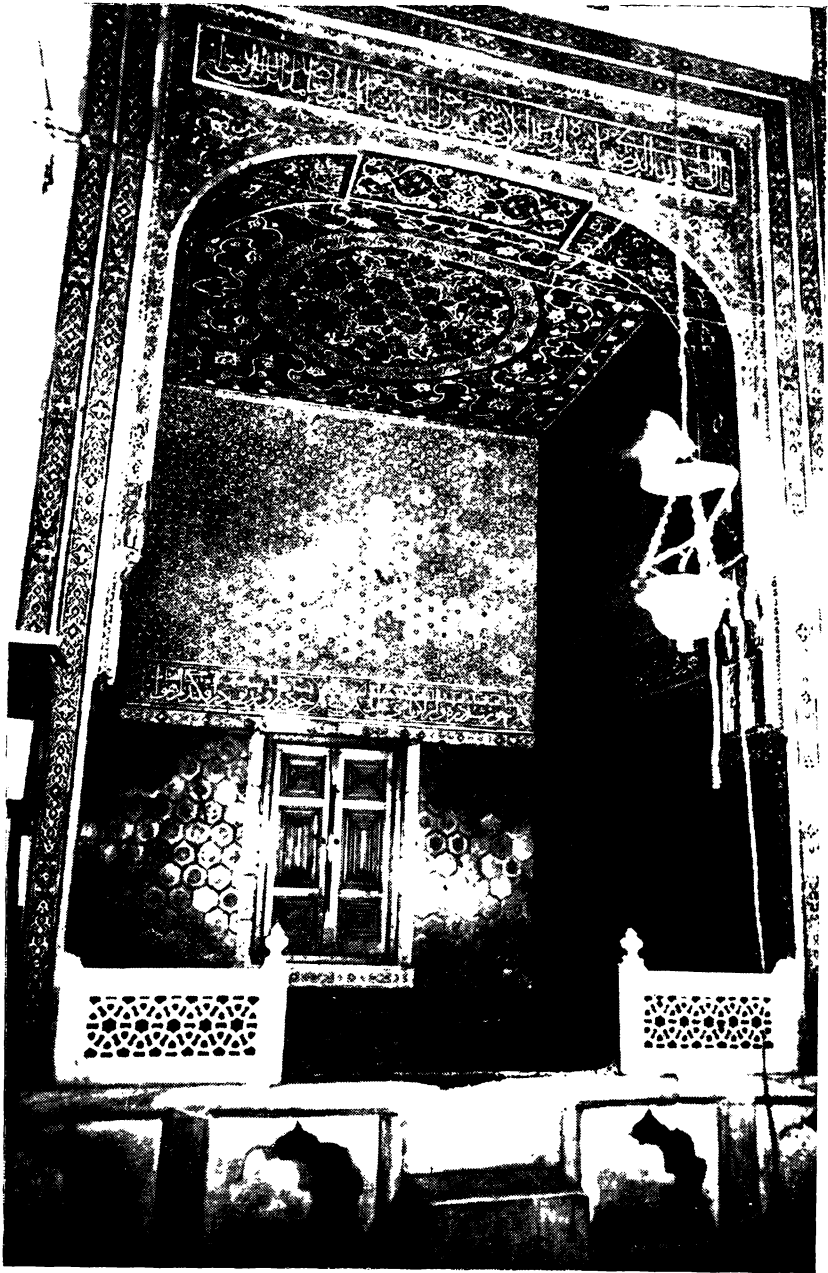
THE PLAN OF YESHİL JAMI, BURSA



THE ENTRANCE OF YESHİL JAMİ, BURSA

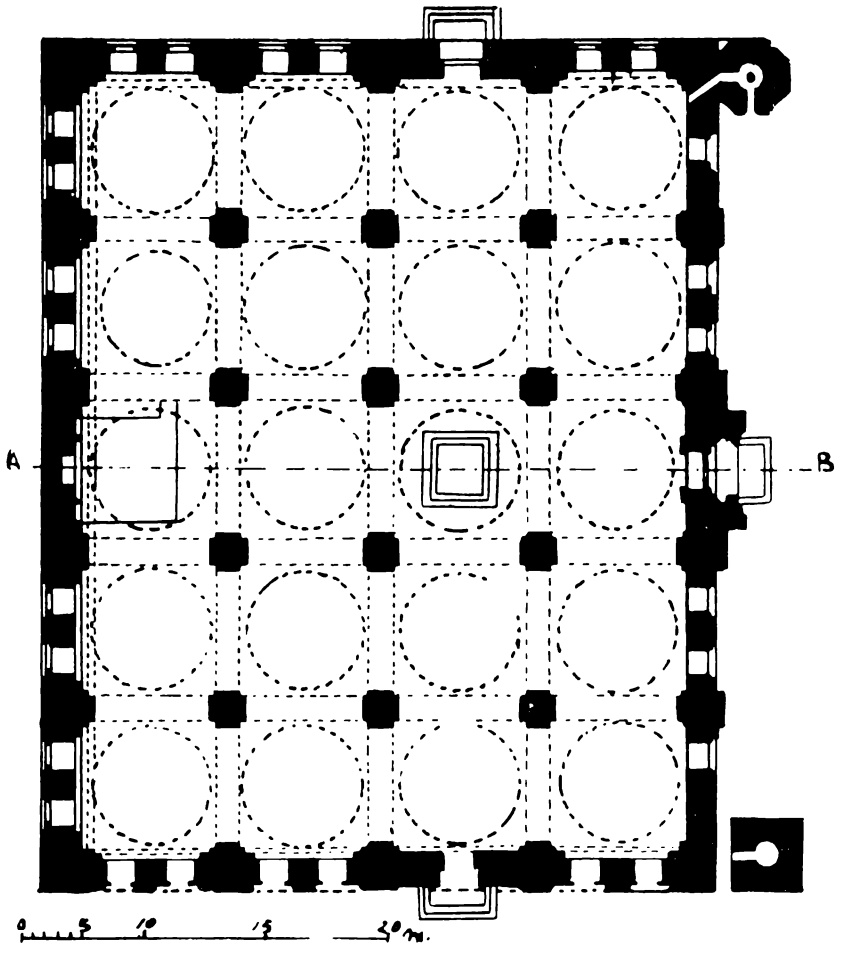


THE MIHRAP OF YESIL JAMI, BURSA

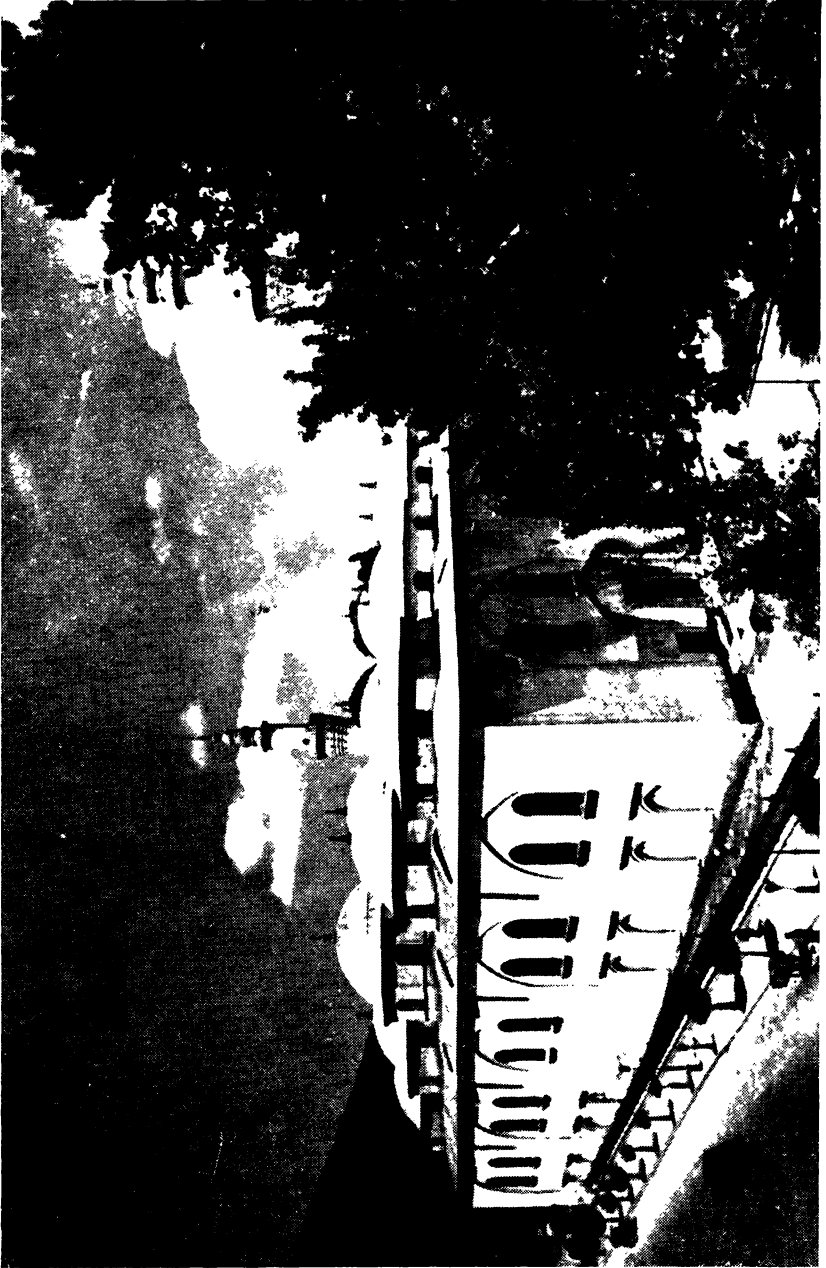


THE MUEZZINS' GALLERY IN THE YESHIL JAMI, BURSA

PLANS AND FIGURES XIII

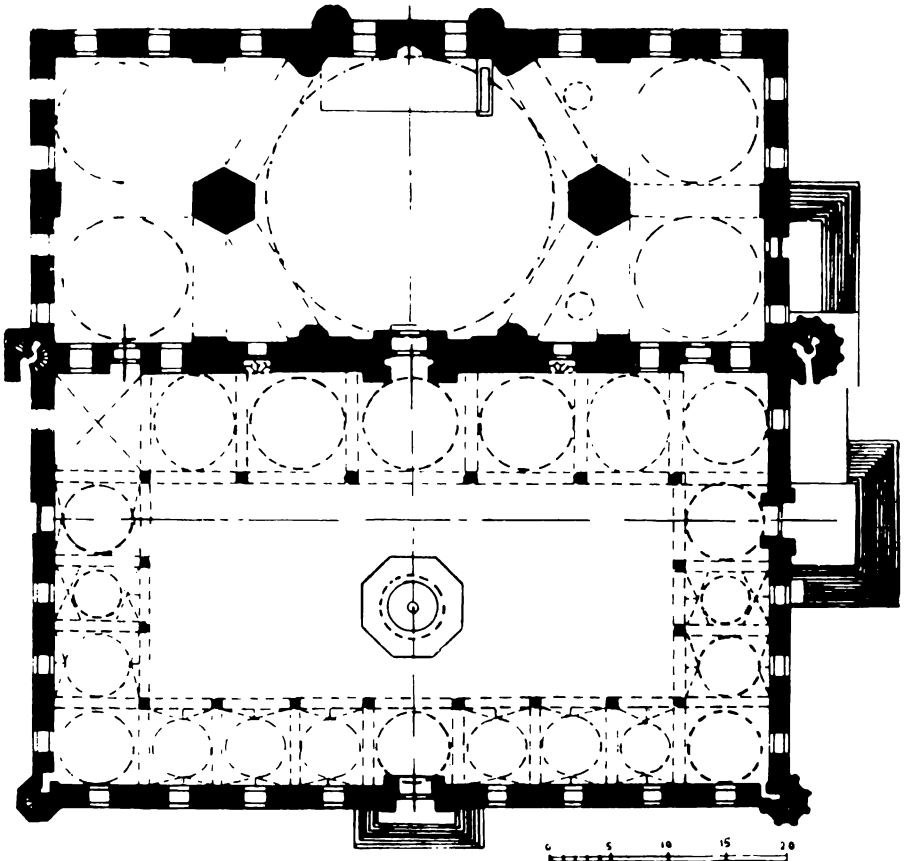


THE PLAN OF ULU JAMI, BURSA



ULU JAMI, BURSA, A VIEW FROM SOUTH-EAST

PLANS AND FIGURES XV

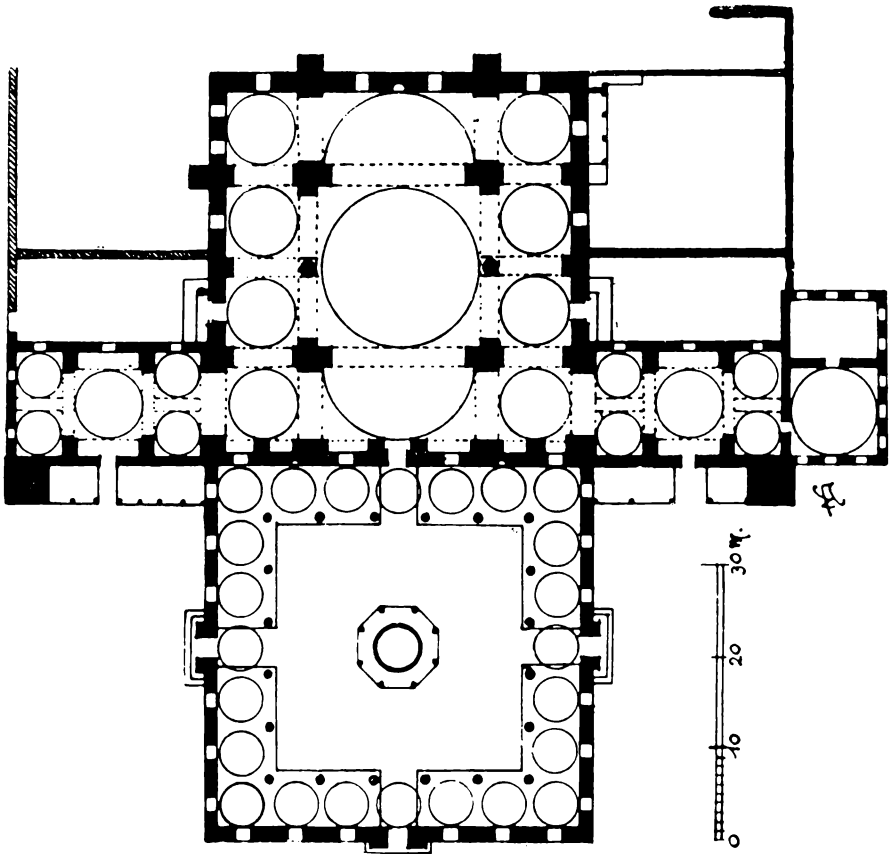


THE PLAN OF THE UCH SHEREFELI JAMI, EDI



THE UCH SHEREFELI JAMI, EDİRNE

PLANS AND FIGURES XVII

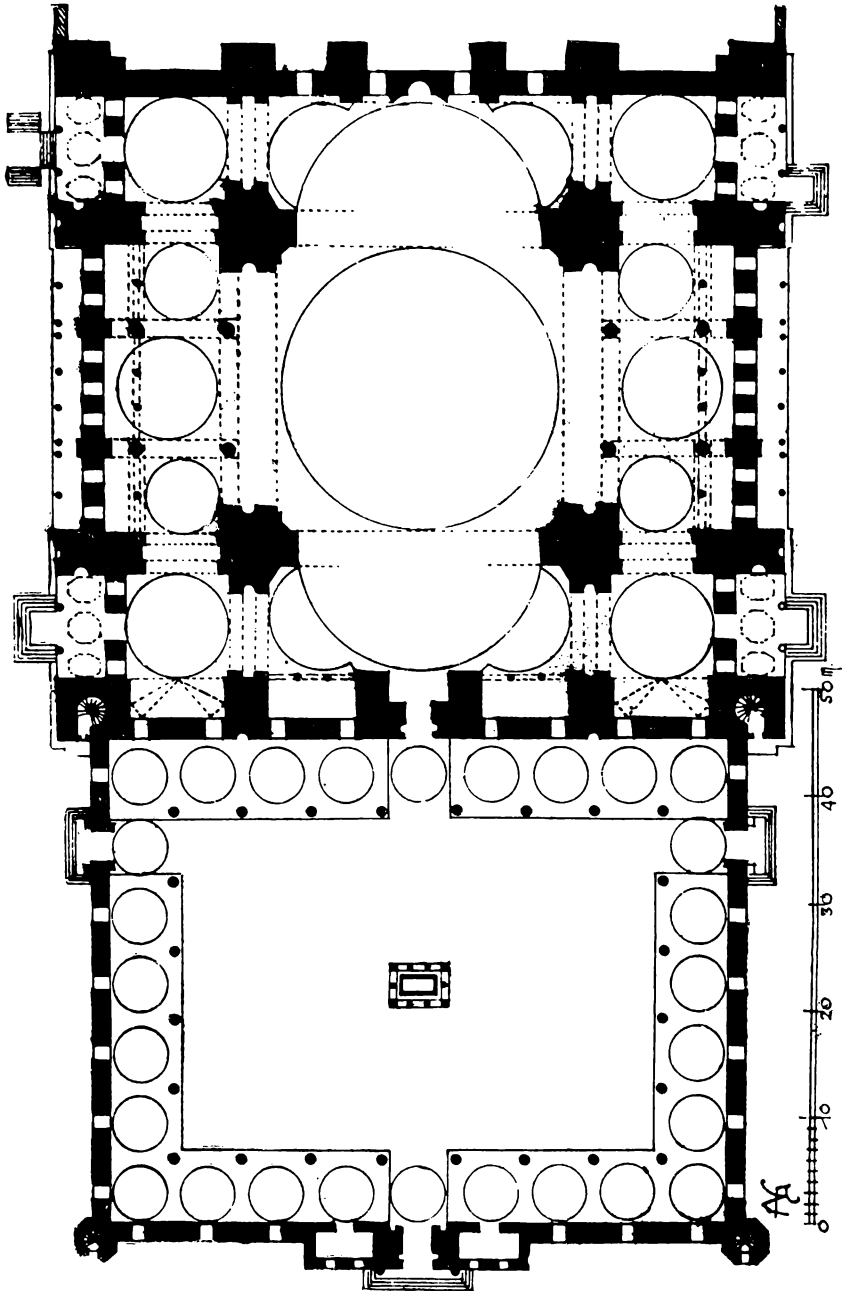


THE PLAN OF THE BAYAZIT JAMI, ISTANBUL (BY COURTESY OF A. GABRIEL)

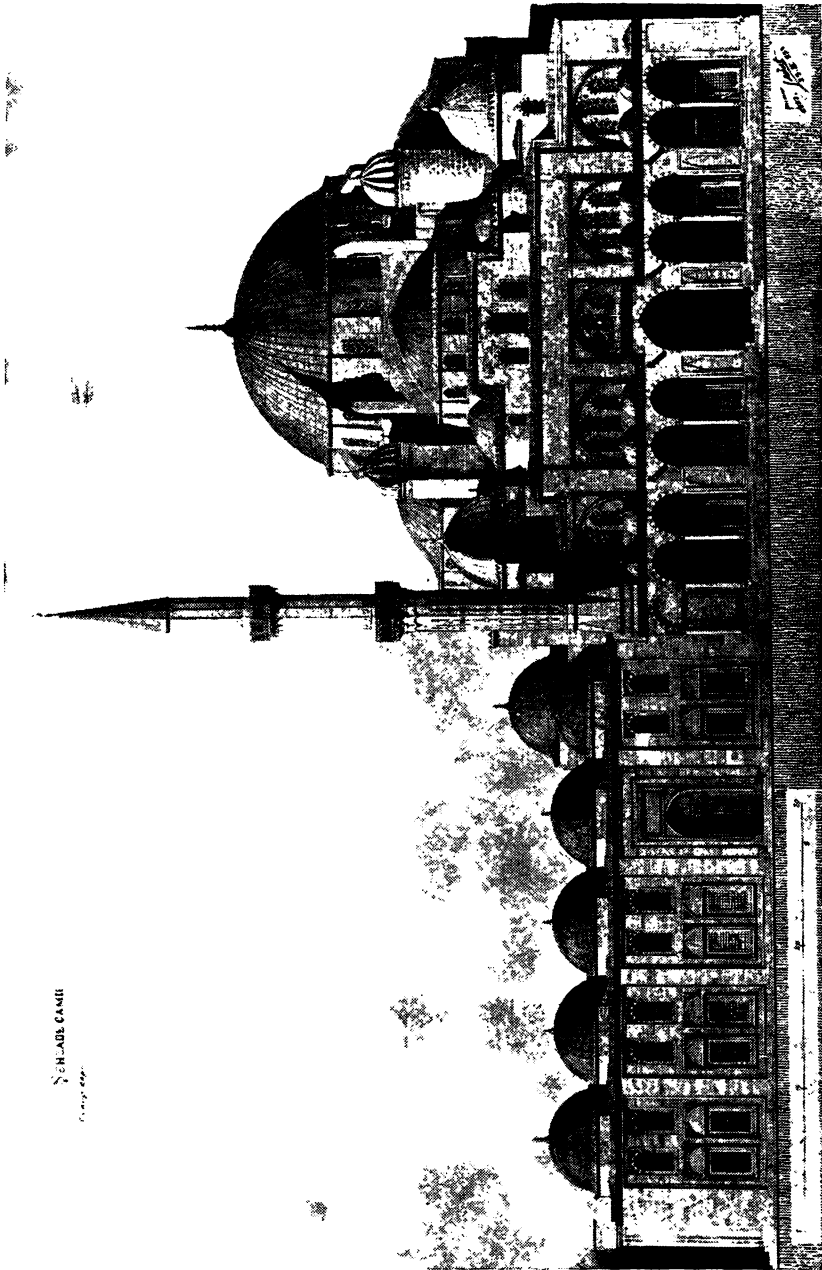
P*ANS AND FIGURES XVIII



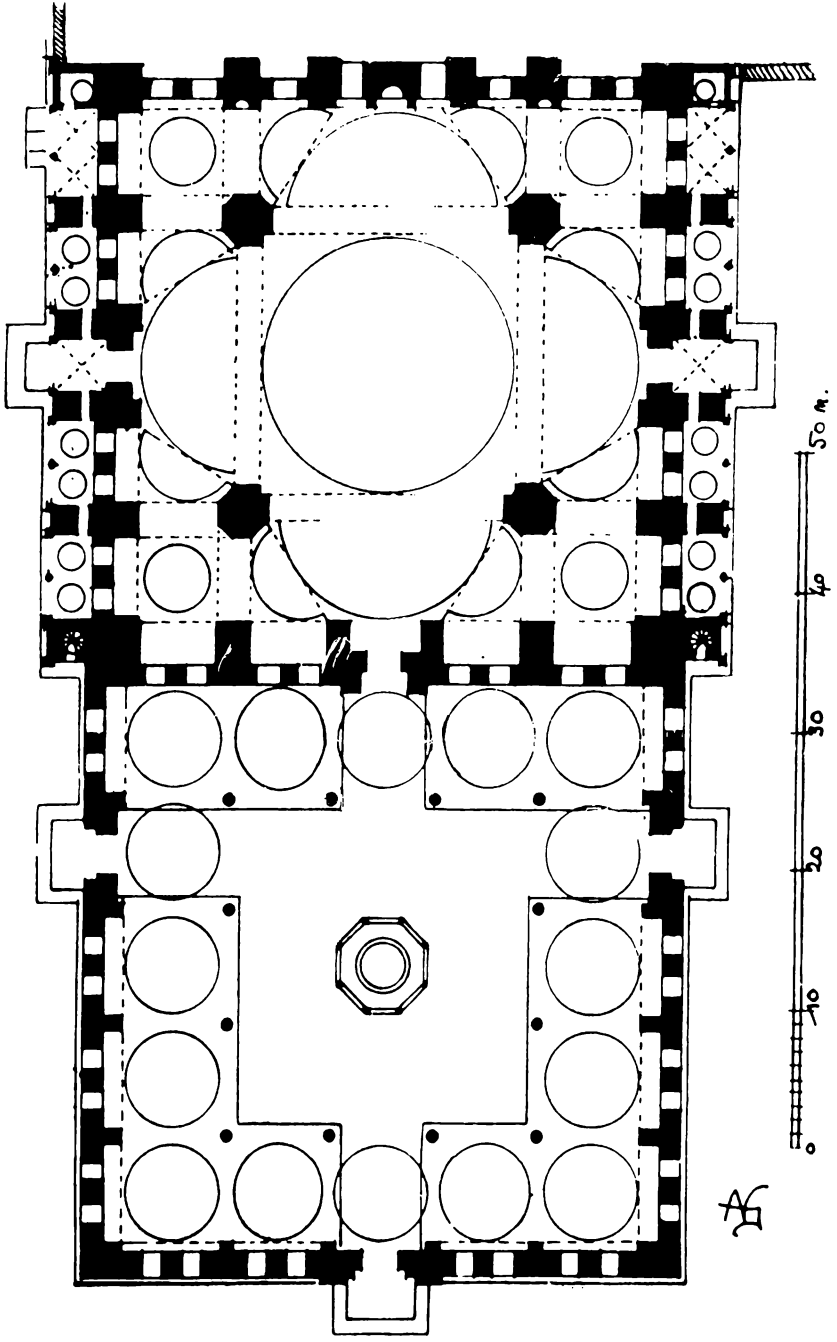
THE BAYAZIT JAMI, ISTANBUL



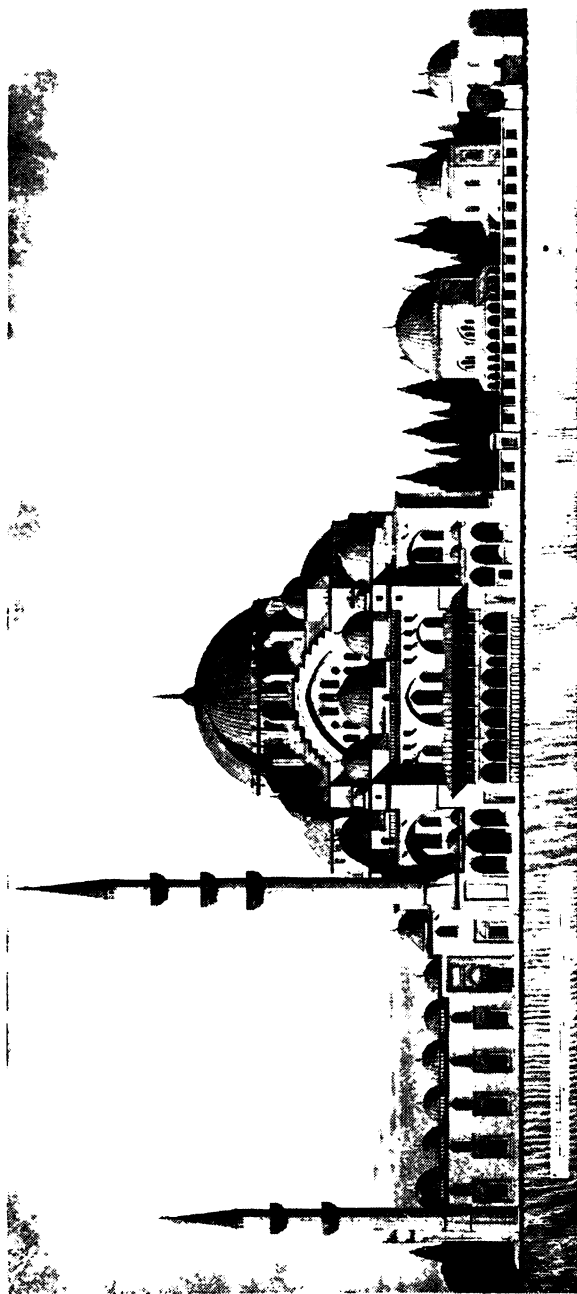
THE PLAN OF SHEHZADE JAMI, ISTANBUL



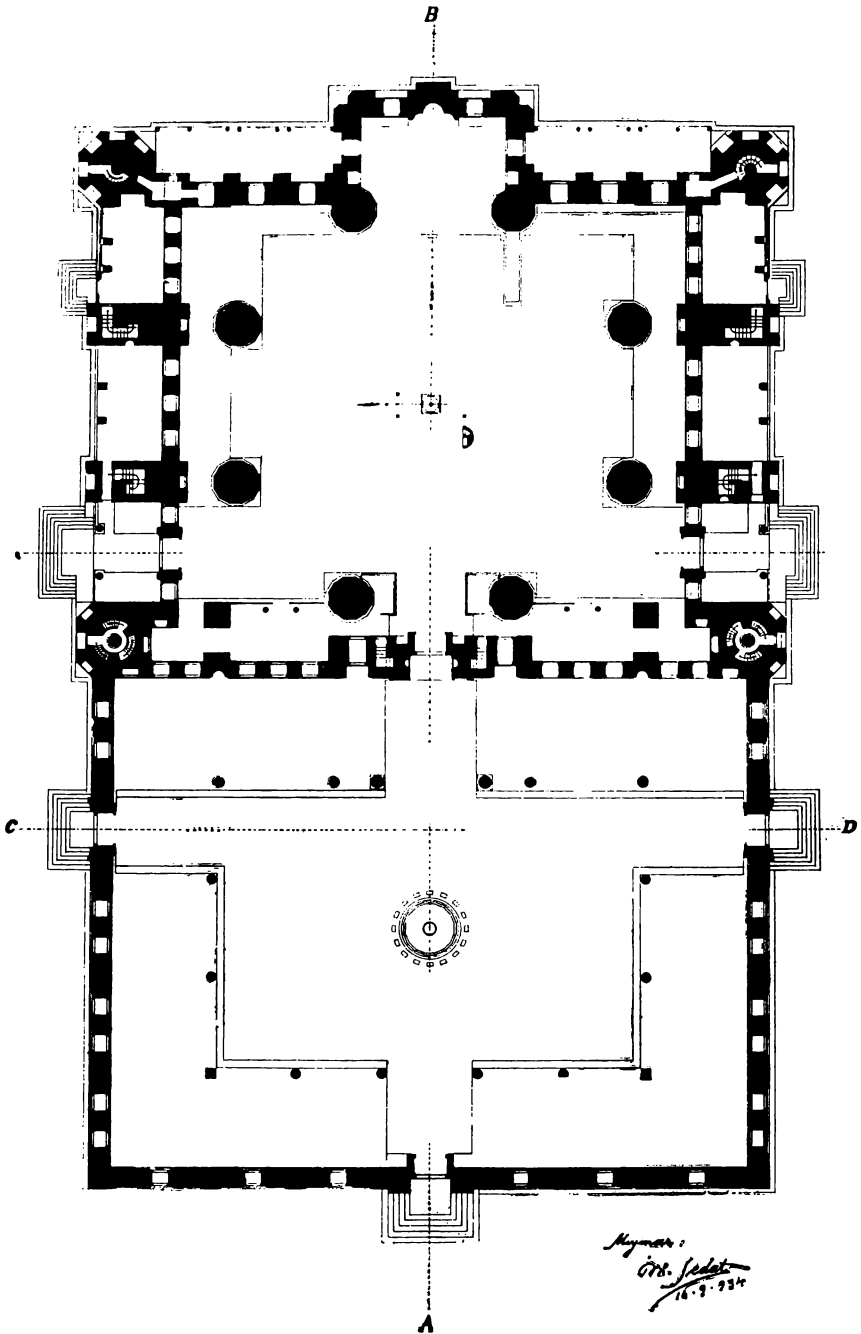
SHEHZADE CAMII, ISTANBUL, SOUTH VIEW



THE PLAN OF SULEYMANIYE MOSQUE, ISTANBUL



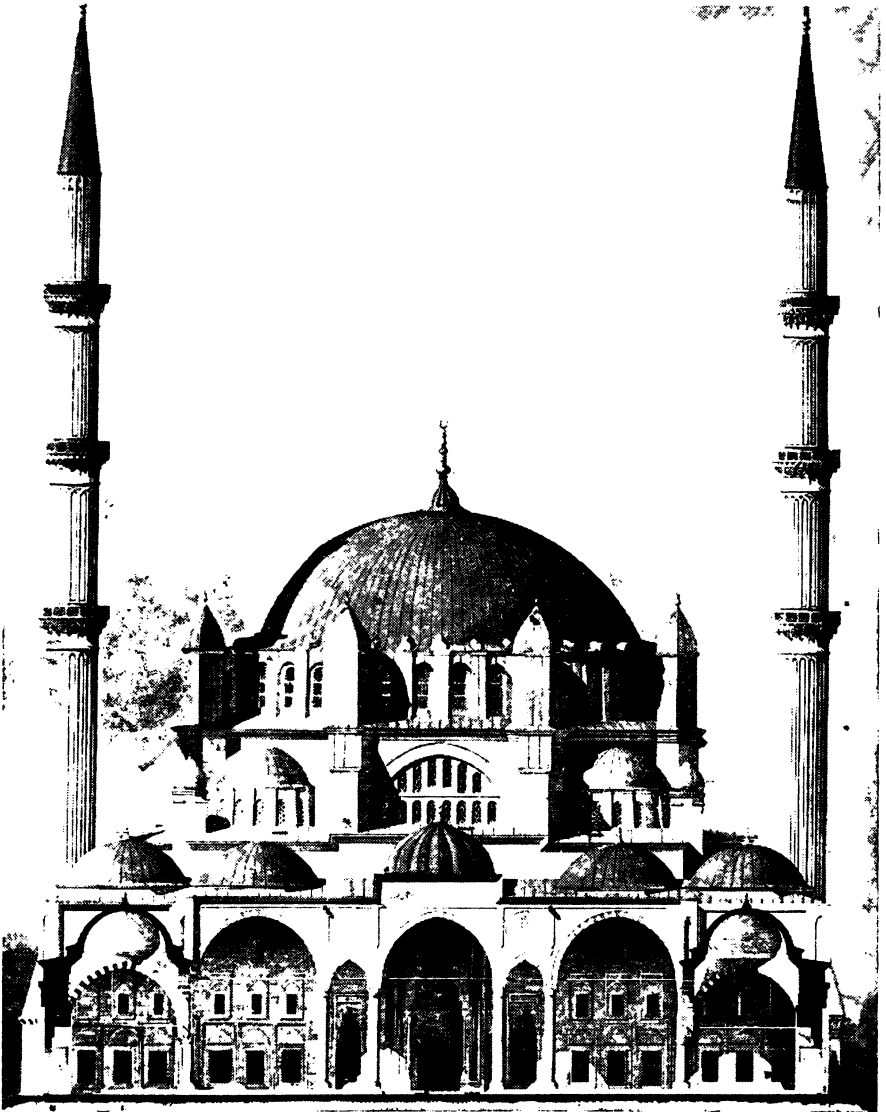
SULEYMANIYE MOSQUE, ISTANBUL



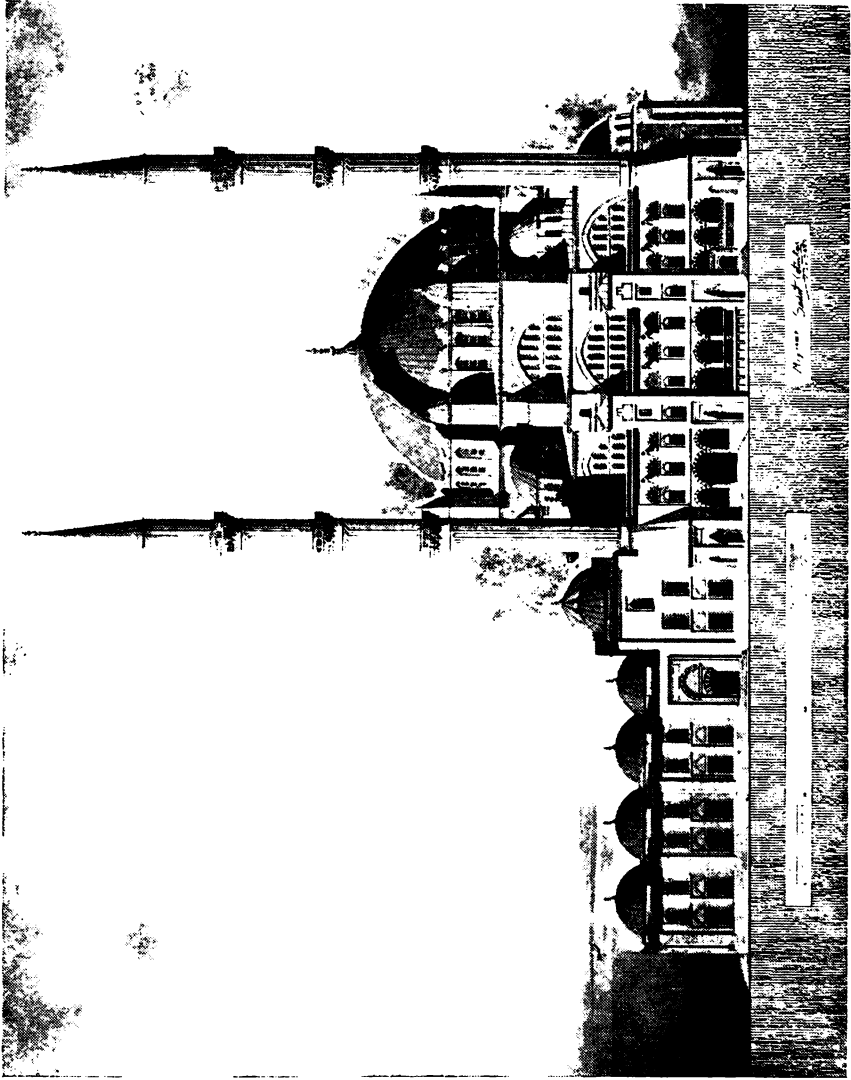
EDIRNE, SELIMIYE JAMI, PLAN



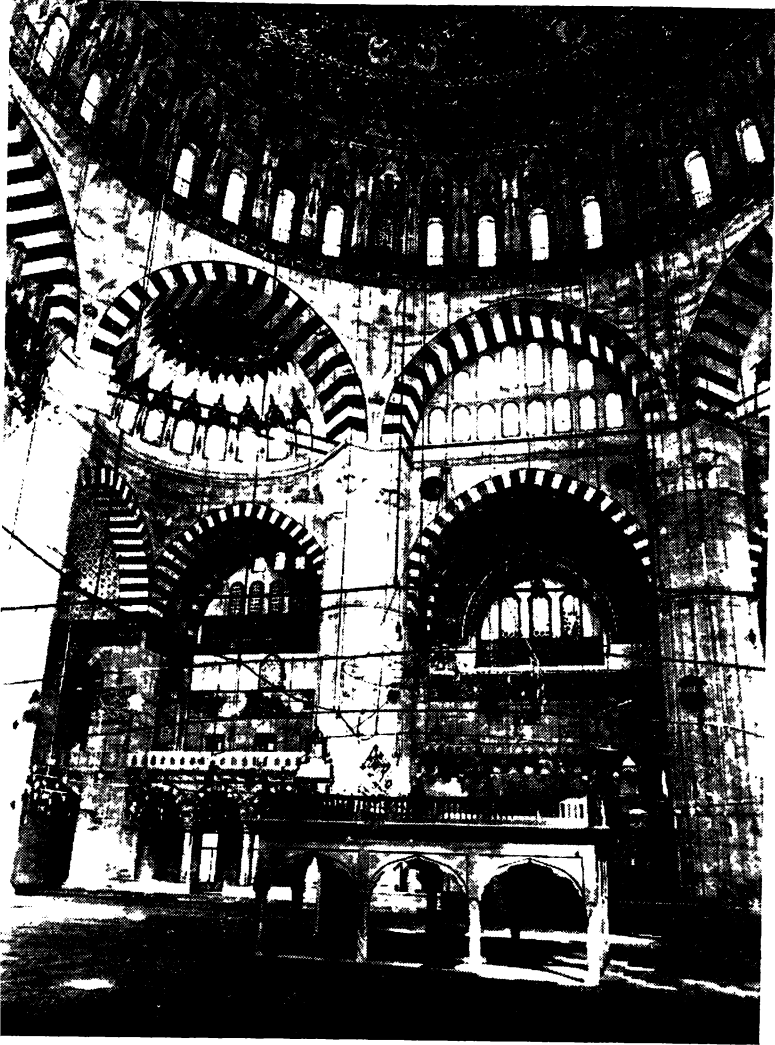
SELİMİYE MOSQUE, EDİRNE



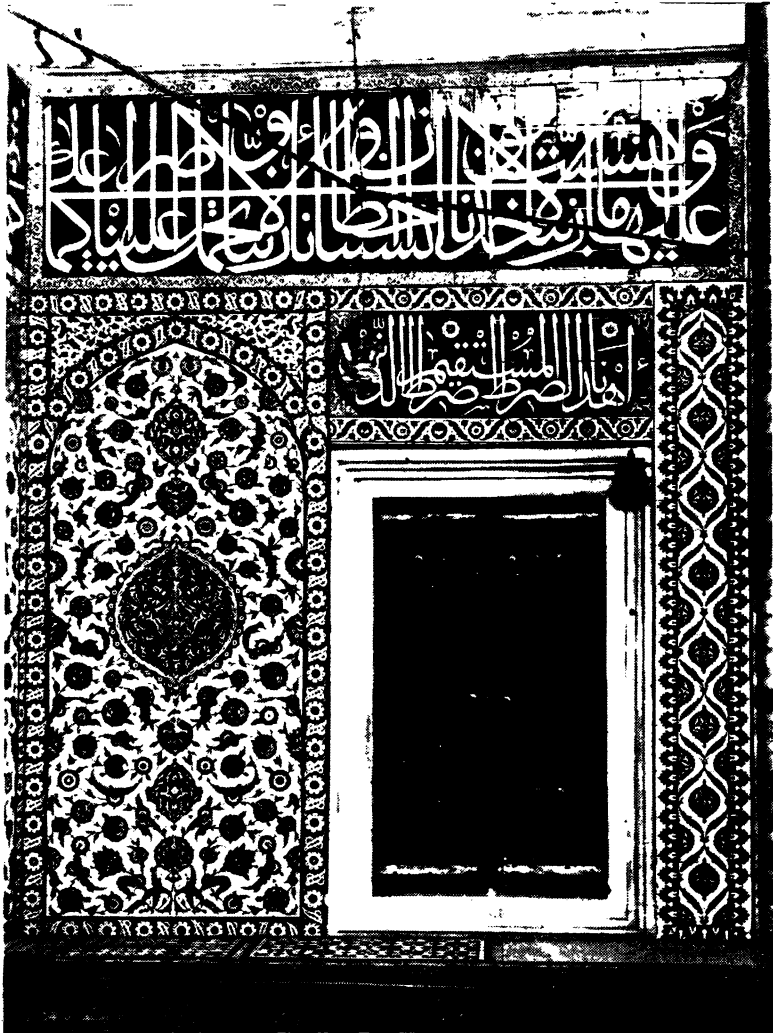
SELIMIYE MOSQUE, EDIRNE



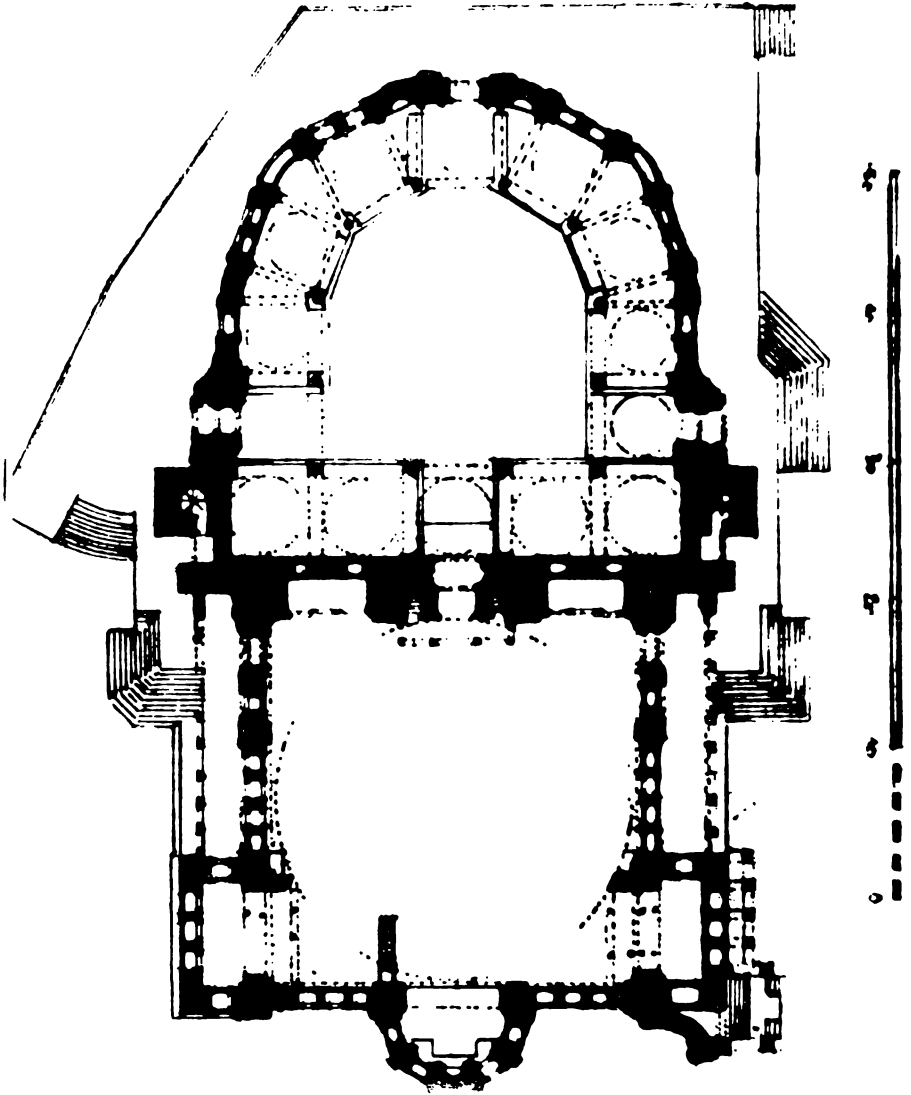
SELIMIYE MOSQUE, EDIRNE, A VIEW OF THE WEST SIDE OF THE BUILDING
(BY COURTESY OF SEDAT ÇETINTAŞ)



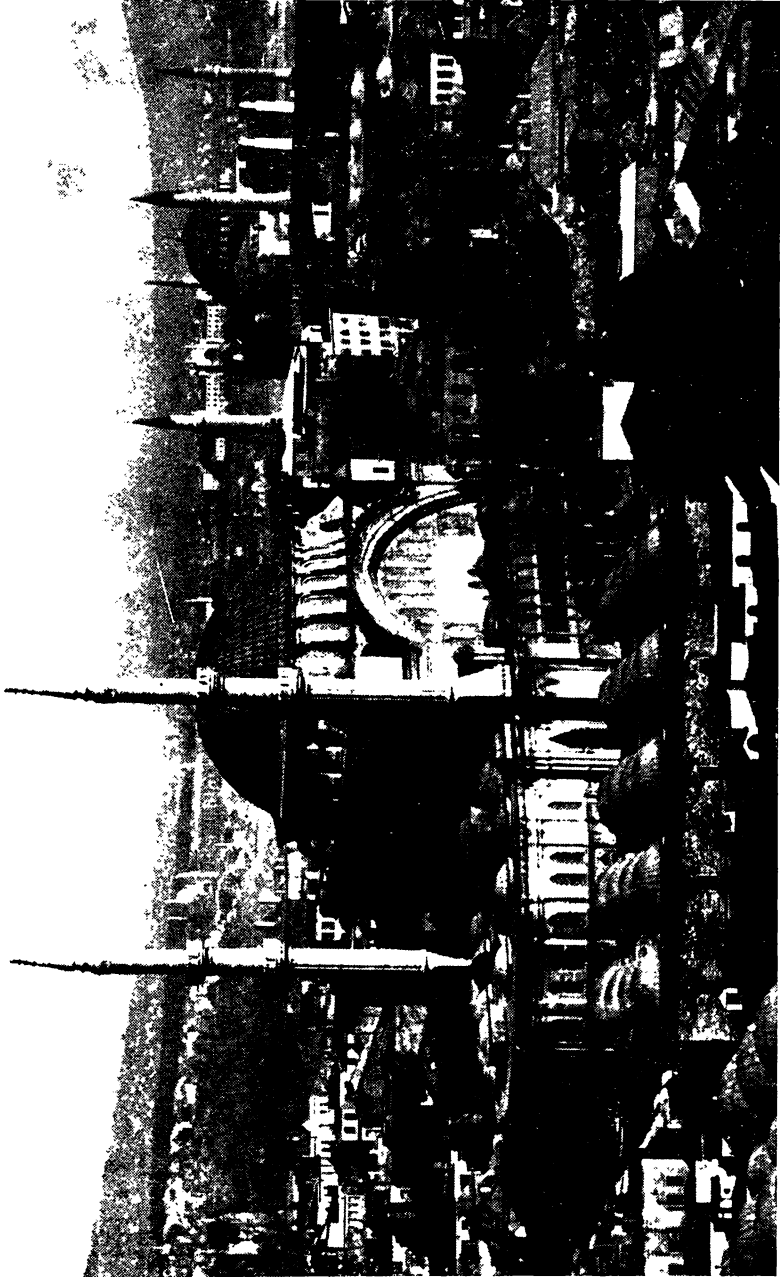
SELIMIYE MOSQUE, EDİRNE, A VIEW OF THE INTERIOR



A VIEW OF THE TILES OF SELIMIYE MOSQUE, EDİRNE



THE PLAN OF THE NUR-U OSMANIYE JAMI, ISTANBUL



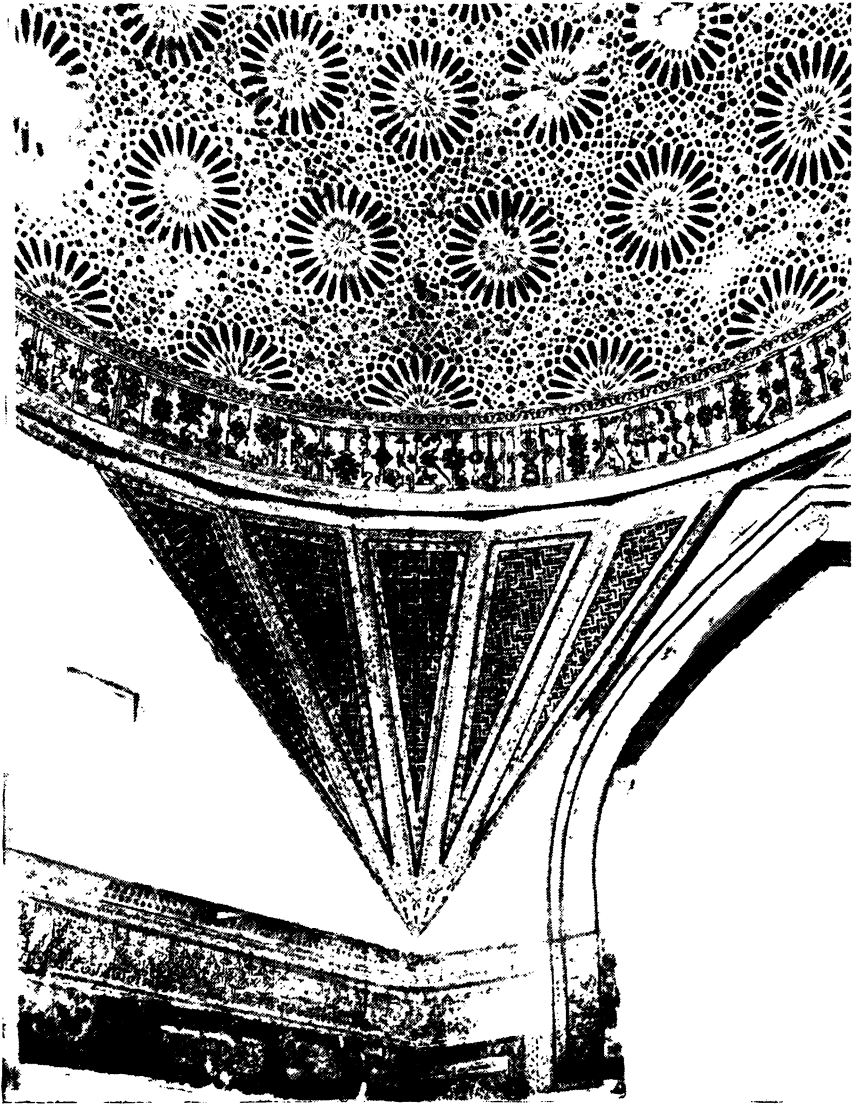
NURU OSMANIYE MOSQUE, ISTAN



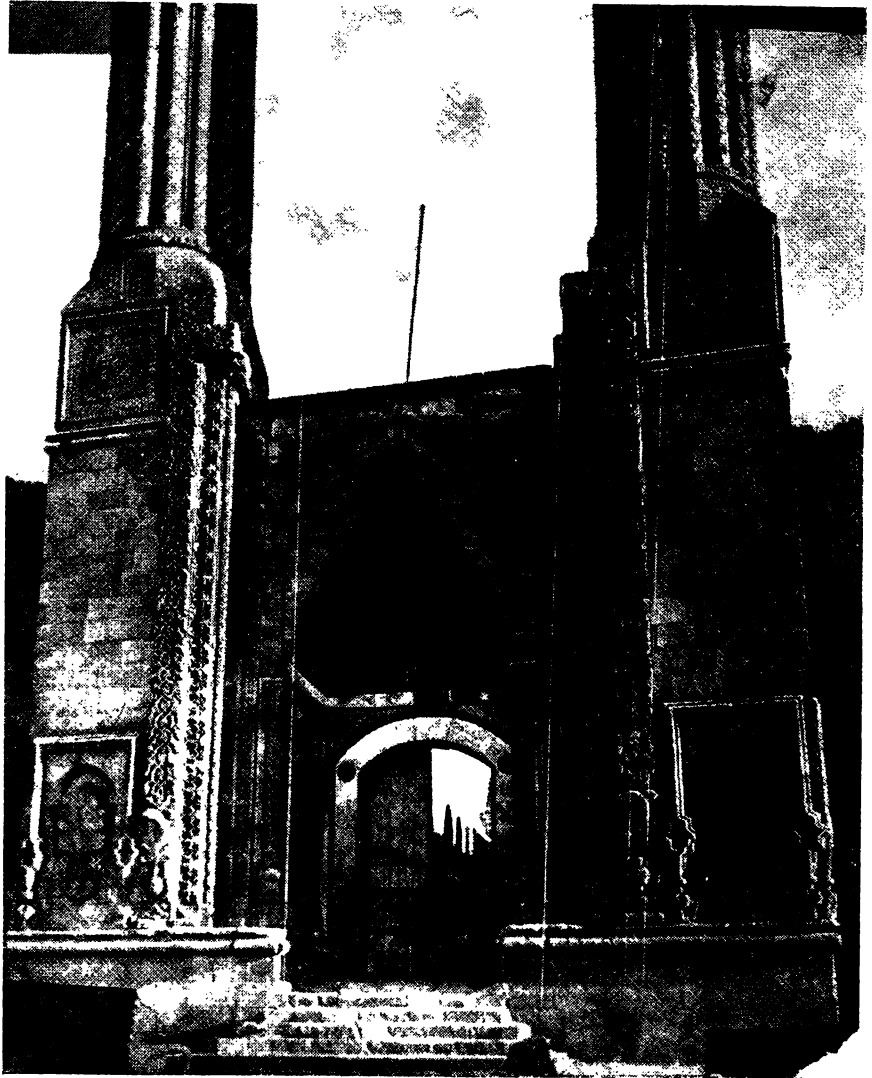
THE E.

OF THE KARATAY MED

KONYA



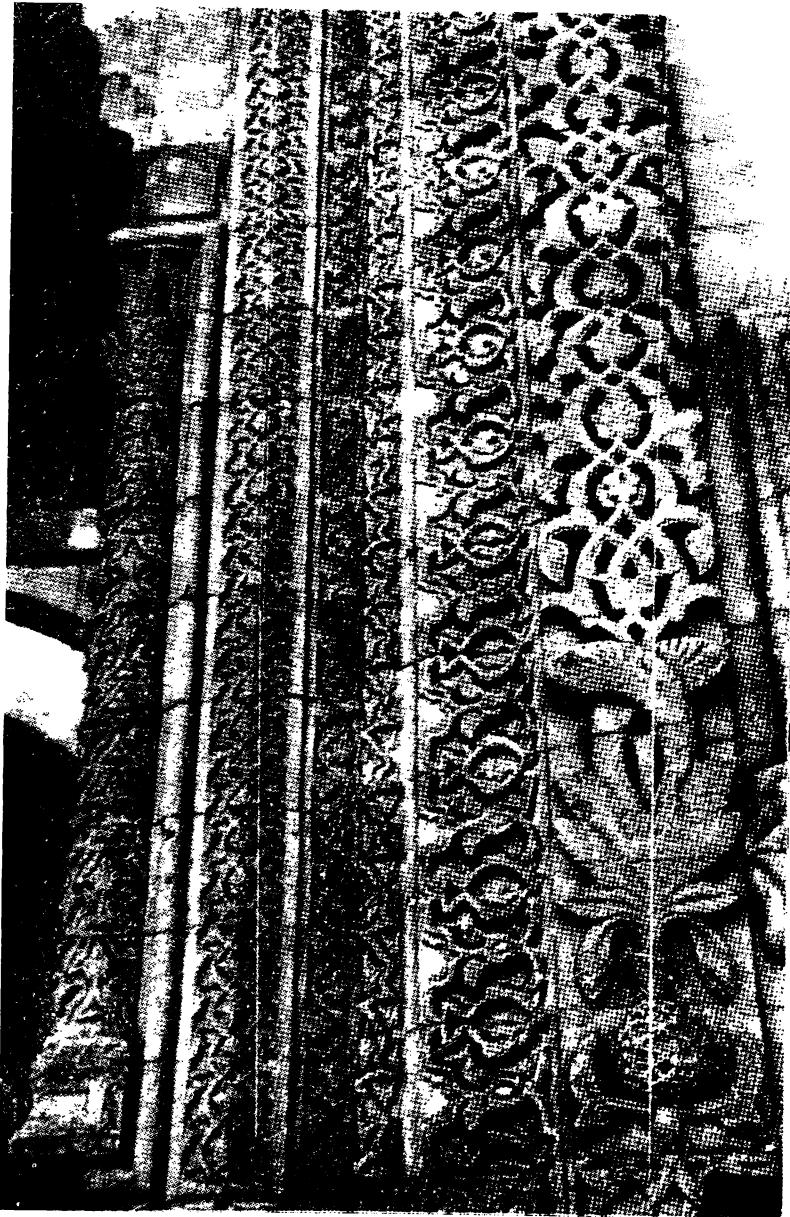
TRANSITION FROM THE SQUARE FORM OF THE BASE TO THE CIRCULAR FORM
OF THE DOME BY TRIANGLES IN THE KARATAY MEDRESEH IN KONYA



THE ENTRANCE TO THE ÇİFTE MİNARELİ MEDRESEH, ERZURUM

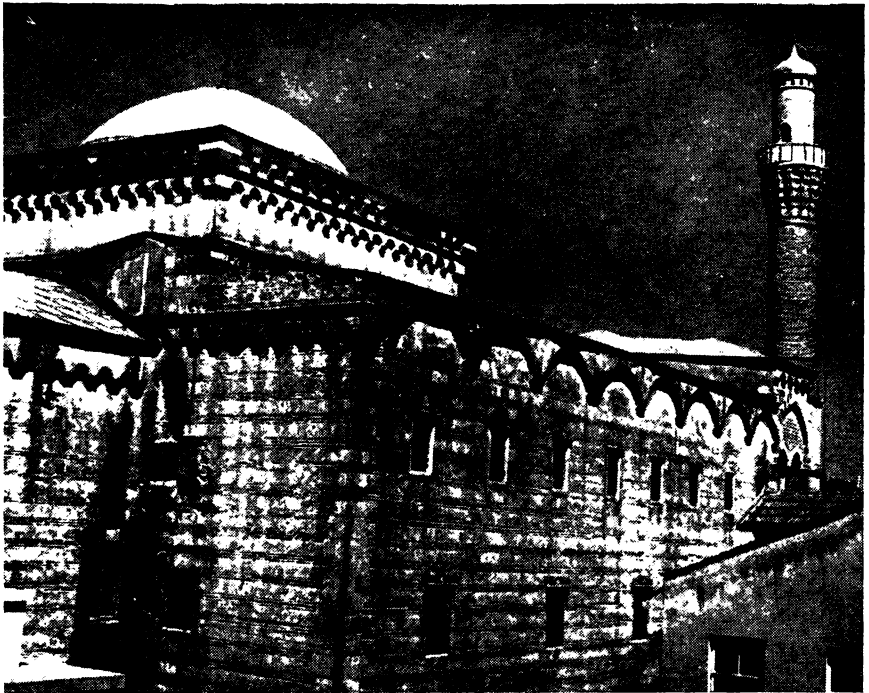


THE ÇİFTE MİNARELİ MEDRESEH, ERZURUM

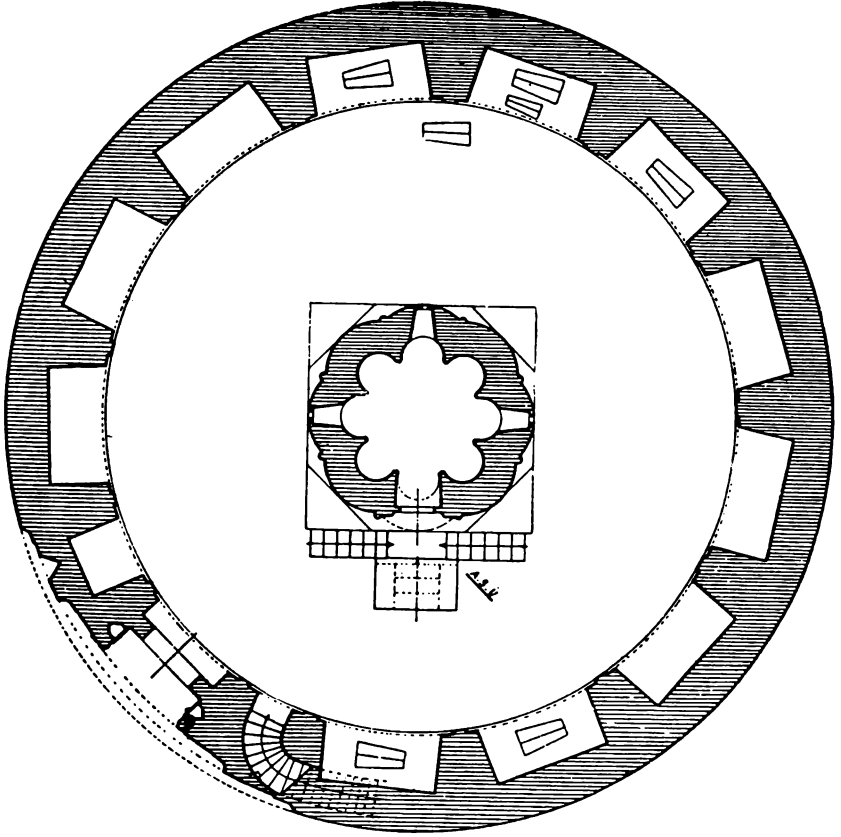


FOUR BANDS OF DECORATIONS ON THE ENTRANCE TO THE ÇIFTE MINARELİ
MEDRESEH, ERZURUM

PLANS AND FIGURES XXXVI



THE MEDRESEH OF THE MOSQUE OF MURAT I, BURSA



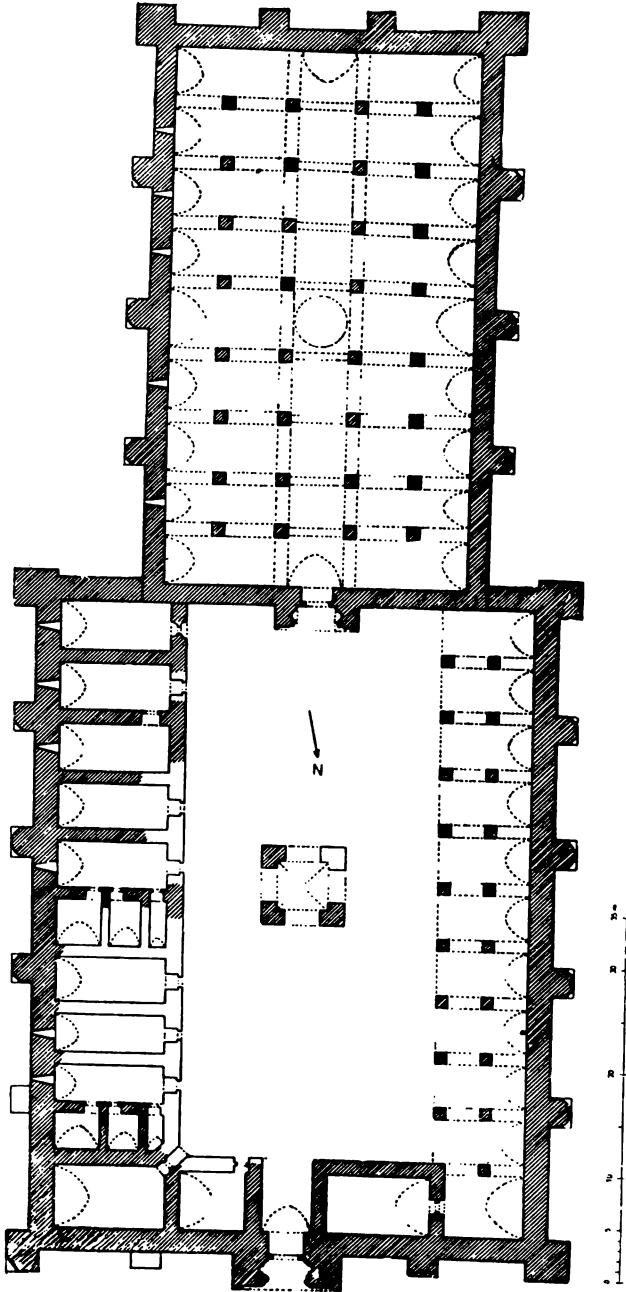
TERCAN, MAMA HATUN TÜRBESİ, PLAN



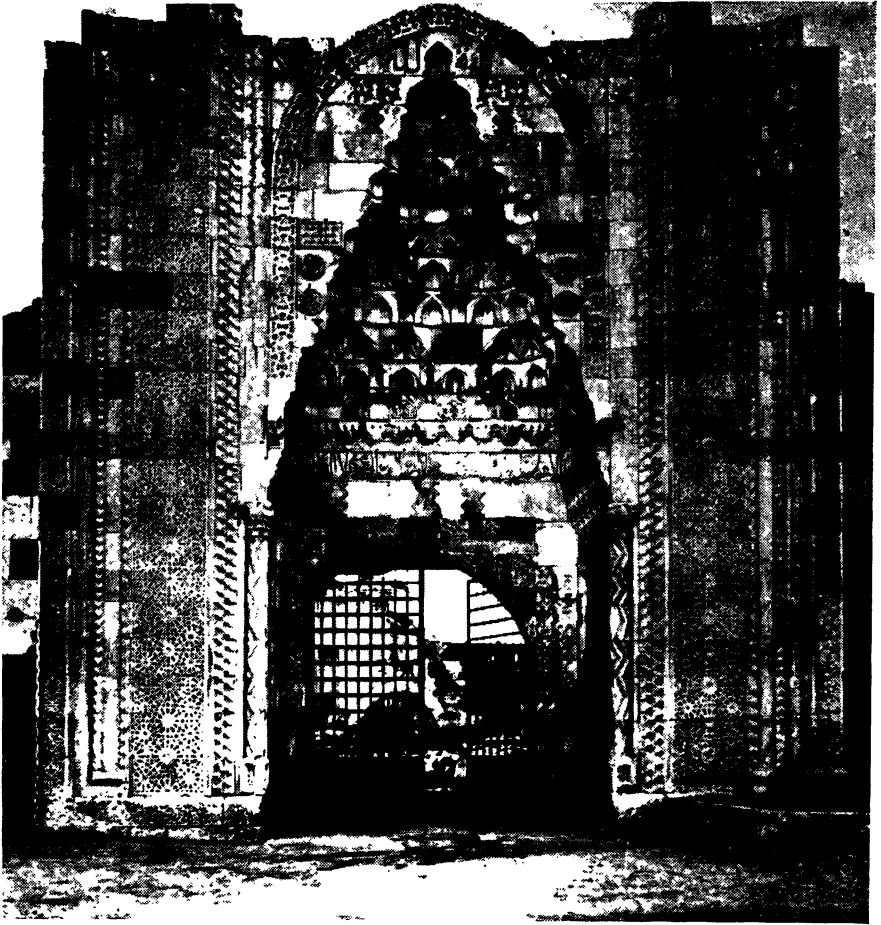
THE TURBEH OF MAMA HATUN, TERCAN. A VIEW OF THE INTERIOR



DÖNER KÜMBET (TURNING KÜMBET) KAYSERİ



THE PLAN OF THE SULTAN HAN



THE ENTRANCE OF THE SULTAN HAN ON THE KONYA-AKSARAY ROAD



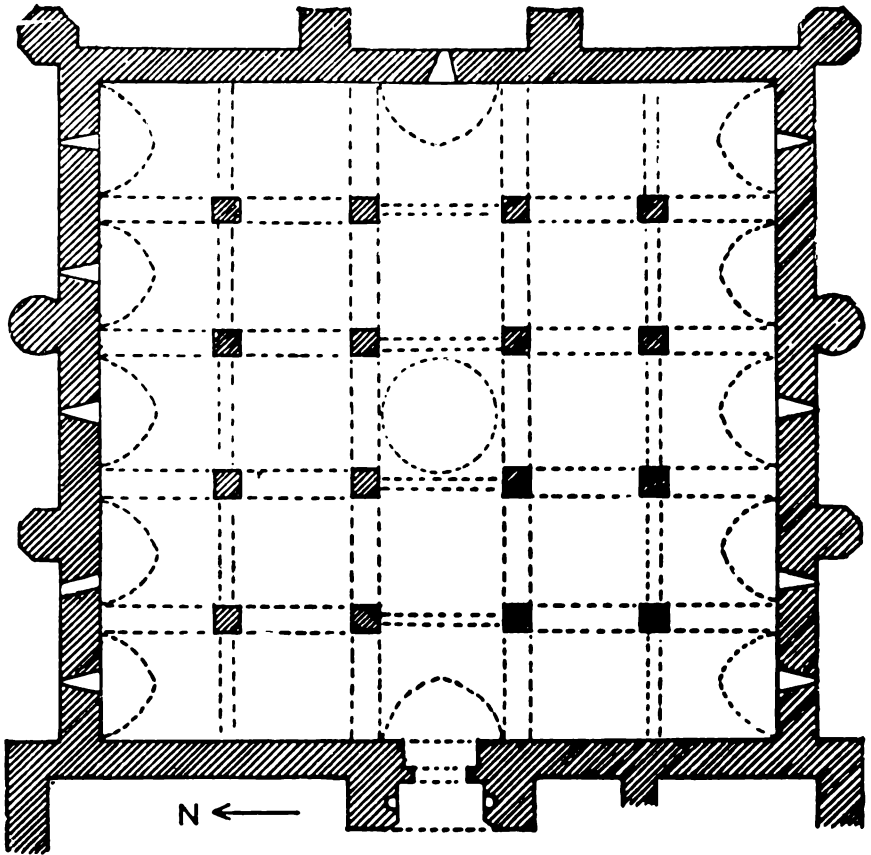
THE MESJID OF THE SULTAN HAN

PLANS AND FIGURES XLIII



THE SULTAN HAN. DETAILS OF THE ORNAMENTS OF THE ENTRANCE

PLANS AND FIGURES XLIV



THE PLAN OF SUSUZ HAN, BURDUR