

THE ARCHITECTURE OF THE SYNAGOGUE

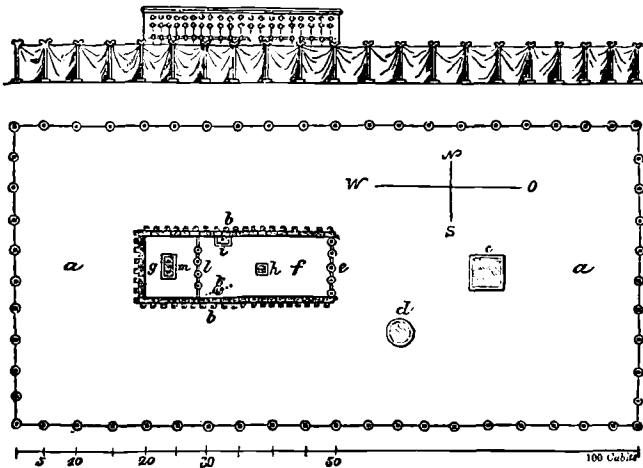
By WILLIAM G. TACHAU

The study of the Synagogue is the study of the history of Israel. No period of its existence is conceivable without this place of public worship and religious instruction. Very early the Synagogue became the central institution of Judaism and owing to its existence, later on, after the dispersion, the very life of the faith was preserved.

The Synagogue, then, was the center of activities of each community, just as the Temple at Jerusalem had been the center for the entire people. Indeed, the Synagogue became for each scattered community a sanctuary in miniature in compensation for the loss of the Temple. Therefore, no matter how details may vary in different countries, Synagogal worship was the most important visible expression of Judaism, and it was the chief means of uniting the Jews scattered throughout the world.

It is probable that the Synagogue existed even during the period of the Temple, but it is certain that places of congregation during the exile in Babylon offered the beginning of the present houses of worship. The word "Synagogue" comes from the Greek and means an assembling together. The word itself, of course, came into use long after the captivity, but places of assembly and prayer existed throughout the land long before they were mentioned in history by the name of Synagogue.

To give an adequate, critical survey of synagogal plan, it is necessary to trace its history from its inception. The earliest actual place of worship of the Jews is known as the tabernacle, which, in arrangement, was fundamentally a repetition in movable tents of the triple Egyptian Temple system that consisted of court, hall and cella. The enclosure around the tabernacle formed a court twice as long as it was broad; there were twenty-one columns upon the sides and eleven upon the front, erected like tent poles. These supports had silver capitals and stood in sockets of bronze. White immovable hangings were fastened between these columns, except at the entrance on the eastern front where movable curtains of blue, purple and scarlet linen filled the open spaces.



1. ELEVATION AND PLAN, OF MOSAIC TABERNACLE

The tabernacle itself (figure 1) was placed near the western end of the enclosure, and in the square place in front of it, (a),

rose the altar of earth and wooden sheathing (c) for burnt offerings, and near at hand stood the laver of brass (d). The tabernacle was enclosed on three sides by boards overlaid with sheets of gold (b), held in place by double sockets of silver, which in turn were clasped together by bars that fitted into golden rings. The eastern front was limited by five gilded columns (e). The roof again recalled the tent form—its covering being of colored linen and the skins of animals.

The tabernacle, like the Egyptian Temple, was three times as long as it was broad, and was divided into two unequal compartments—the front (f) being twice the depth of the Holy of Holies (g), the altar for incense (h) standing in the center of the first space and the table for the shewbread being placed next to the northern wall (j). In the southwestern corner stood the seven-armed candlestick (k). The Holy of Holies, square in plan, was separated from the larger ante-chamber by four gilded columns, which also stood in sockets, and it contained the Ark of the Covenant (m)—a coffer of acacia wood, borne upon poles fixed in golden rings, whose lid bore figures of two cherubim, carved in wood and overlaid in gold.

The form and arrangement of the tabernacle are, in the main, quite well defined, but this, unfortunately, is not true of the monumental temple erected by King Solomon. The accounts and descriptions of this building are both confused and conflicting, as may be expected from writers ignorant of art. It seems generally agreed upon, however, that the Temple consisted of an open vestibule (*Ulam*), the Holy Place (*Hekal*) and an inner chamber known as the Holy of Holies, which was elevated above the level of the Temple proper. In front of the vestibule sprang two columns, Boaz

and Jachin; a large court surrounded the Temple. In the Holy of Holies nothing was visible but the cherubim, intended to enshrine the Ark of the Covenant, in which the Tablets of the Law were kept. An altar of incense and a large table for the twelve loaves of shew-bread were enshrined in the sanctuary. The seven-armed candlestick also appears, just as in the tabernacle, to which were added ten lamp-holders and other lesser utensils. Inside the vestibule were placed a large iron altar and a spacious reservoir called the "Iron Sea", which was supported upon twelve iron bulls; groups of three were so arranged that they turned in the direction of the cardinal points of the compass.

There are many and varied attempted restorations of Solomon's Temple. In accordance with the descriptions of this famous structure, each author, while apparently conforming strictly to these instructions, supplied architectural details within his own knowledge or forms dictated by his own personal prejudices, so that an amazing variety of impressions has resulted. Every known style of architecture is therefore represented, ranging from Egyptian and Assyrian, through the Classic and Gothic, to all forms of the Renaissance.

As a matter of fact, it is impossible to determine to what extent this noted building was affected by the art of the surrounding countries, or which influence really predominated. The strongest stimulus undoubtedly came from Egypt, as the palace of the Queen, adjoining the Temple, must have been vividly reminiscent of the splendor of her native land. It must also be remembered that the Israelites had grown to a people upon the banks of the Nile and, without doubt, transplanted many artistic conceptions and methods of construction to their own land.

There is no good reason to believe that there existed a really distinctive Jewish ancient art, for no matter how insistent an initial urge there may have been for a national expression, it must soon have languished. The position of the country as a highway between the neighboring powerful states, precluded that seclusion necessary for the development of a native art, and the close contact with an art already highly advanced, made it easier to borrow than to create. This whole subject, though very interesting, is purely speculative, for the sole actual remains of that period—Solomon's Temple—which could have been the most significant testimony, are now merely the base of a fortified wall.

After the return from captivity, another item for speculation presents itself. If public worship became sufficiently important to demand special housing other than in the reconstructed Temple, then the structures were undoubtedly largely Assyrian in character. The Temple has always been looked upon as the true prototype of the Synagogue, even though there is but a slight physical resemblance between the two buildings. Nevertheless, there are certain features in the Temple that undoubtedly left their impress upon the Synagogue.

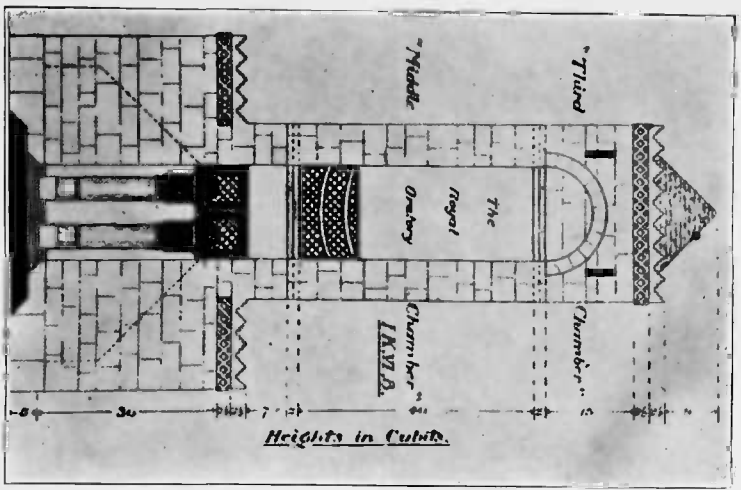
The main body of the Synagogue, for instance, easily recalls the porch (*Ulam*) which, in the Temple, was the space given over to the needs of the congregation. The suggestion that the porch corresponds to the *pronaos* of the Christian basilica or the narthex of the Gothic church, is refuted by the fact that practically all of the earliest synagogues had no vestibules. The *Hekal*, which was reserved for the priests and contained the seven-armed candlestick, the table for the

shew-bread and the altar of incense, is now symbolized in the synagogue by the Bima or "Almemar." This is a raised dais which is used for the reading of the Torah and contains a table on which the Torah is laid, symbolic of the old order of table for the shew-bread. The elevation of the Holy of Holies of the Temple is recalled in the steps and platforms in front of the ark from which the Torah is taken and exhibited to the congregation with prescribed ceremonies, and after its reading, is replaced in the shrine.

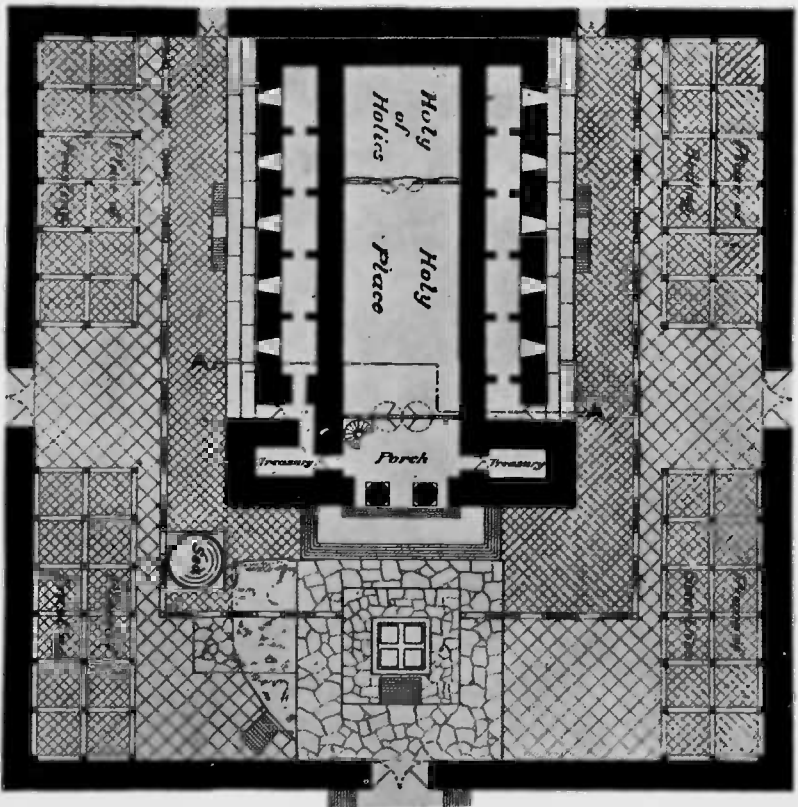
These two elements are usually separated from the rest of the synagogue area, and are connected by an aisle which provides space for processions. The *Almemar* is either square or octagonal in plan, is raised above the floor and has seats protected by a balustrade. Very often it is covered with a baldachino and is constructed of wood, iron or sometimes stone. The termination of the steps leading to the Holy Shrine, as part of the *Hekal*, is indicated by the placing of the Hanukkah candlestick (*Menorah*), usually on the south side, which is probably a substitute for the seven-armed candlestick of Solomon.

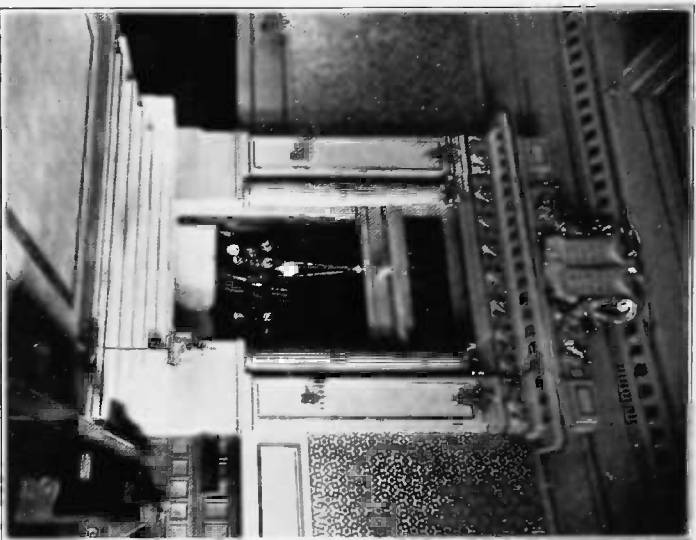
The Holy of Holies, originally designed as the space for the Ark of the Covenant, is always raised above the floor level, and is placed against or in the wall that lies nearest to Jerusalem. A richly embroidered curtain (*Parodet*) usually hangs before the door of the shrine as a symbol of the partition between the *Hekal* and the Holy of Holies that was used in the Temple. *These two elements then, the Holy of Holies (Ark) and the Almemar, from earliest times, formed the basis of the plan of the Synagogue, and occurred in all structures and were used even as late as the beginning of the nineteenth century.* The term "Almemar" is a corruption

2. FRONT ELEVATION OF SOLOMON'S TEMPLE (RESTORED)

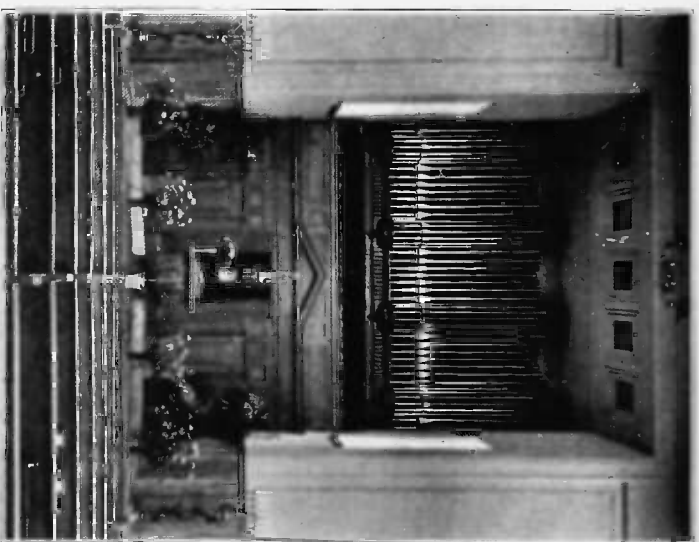


3. PLAN OF SOLOMON'S TEMPLE (RESTORED)
(See pp. 157-158)





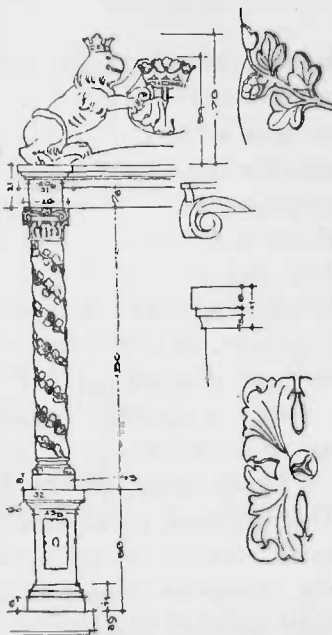
6. INTERIOR OF MIKVEH ISRAEL,
PHILADELPHIA, PA., SHOWING ARK



Tachan & Tongh, Architects
7. INTERIOR OF BETH ISRAEL,
ATLANTIC CITY, N. J., SHOWING ARK
(See pp. 100-102)



4. ANCIENT STONE ALMEMBAR



5. DETAILS OF AN ANCIENT ARK

of the Arabic "Al-mimbar," which means the chair or pulpit, and is more commonly used than the Talmudic word "Bima."

This theory concerning the origin of the two elements of the synagogue plan is substantiated by the Talmud: "The ark is built to receive the scrolls of the law." Furthermore, Maimonides says: "They put a platform in the middle of the house so that he who reads from the law or he who speaks words of exhortation to the people may stand upon it and all may hear him." According to the same author, the elders sit facing the people, who are seated in rows, one

behind the other, with their eyes turned towards the elders and toward the Holy Place. (No mention, however, is made in this connection of the women's gallery.) "As far as touches the *Bima*, this shall not be built higher than eight steps; no one shall sit between the *Bima* and the *Hekal* (the shrine is here meant), for their backs would be turned to the Ark and this would not be seemly. This was forbidden because, whenever the person who stands on the *Bima* turns in prayer, he might lead others to believe that he is bowing to those who are [sit] before the ark."

Other Talmudic regulations regarding the building of synagogues are:

The Elevation of the Synagogue (Megillah' section 3): The Talmud prescribes that the Synagogue be erected on a "raised space," so that it may tower above all the houses in the city; moreover, it cannot be torn down until another synagogue is there (Meg. 27). Synagogues were built on knolls, street corners and gateways (Proverbs of Solomon, 1, 20, 21); also, outside of the city on the banks of a running stream and in the open fields. This was particularly the law of the third and fifth centuries, C. E., in Babylonia, which strictly required the building to be upon a hill and which prophesied the downfall of those cities whose houses were higher than the House of God (Shabbat 11 a). There is, however, an important regulation which wisely recognizes the need of exceptions under certain conditions and circumstances. To quote again: "However, if any emergency arises,—for example, that the authorities own a building, so that it will not be permitted that any other over-top it, then a lower one may be erected and the structure used as the 'House of God'."

Orientation and Entrance: The question whether the Holy Shrine should look toward the east or toward the west occupied the minds of the teachers even in Talmudic times. Thus, for example, Rabbi Abin (Jerus. Berakot 4,8c) remarks that the aspect towards Jerusalem and the Temple could be effective only for the time of the duration of the latter. Quite contrary are the opinions of Rabbi Ishmael (second century), and Rabbi Oshaya (third century), who said on this question: "The head of God is over all" (Baba Batra 25a). Finally, Rabbi Sheshet (fourth century), forbade the eastward aspect as a heathenish use. The prescription of the Shulhan Aruk reads as follows: "The door may not be otherwise set than opposite to that side toward which one prays in the particular city. If one prays to the west, the door should be on the east side, so that one can bow towards the ark from the door."

The Women's Section: There seems to be no mention in the codes of the women's part in the services in the synagogue. In the Bible (Deut. 31, 12) the duty of women to be present at the public reading of the Law is prescribed. It also appears that the injunction (1 Cor. 14,34), "Let the women keep silent in the church," was strictly observed.

There are further legal references which it might be interesting to quote, although they have no direct bearing on the arrangement of the plan. "Honor should be paid to synagogues and houses of study. People must not conduct themselves lightly nor laugh, mock, discuss trifles, or walk about therein; in summer they must not resort to it for shelter from the heat, nor in winter should they make it serve as a retreat from the rain. Neither should they eat or drink therein, although the learned and their disciples may do so

in case of emergency. Every one before entering should wipe the mud from his shoes; and no one should come in with soiled body or garments. Accounts must not be cast in the synagogue or house of study, except those pertaining to public charity or to religious matters; nor should funeral speeches be delivered therein, except at a public mourning for one of the great men of the time." 'A synagogue or house of study which has two entrances should not be used as a thoroughfare; this rule was made on the analogy of that in the Mishnah (Ber, ix, 5) forbidding the use of the Temple mount as a thoroughfare.'

Some honor is to be paid even to the ruins of a synagogue or house of study. It is not proper to demolish a synagogue and then to build a new one either on the same spot or elsewhere; but the new one should be built first (B. B. 3b), unless the walls of the old one show signs of falling. A synagogue may be turned into a house of study, but not vice versa; for the holiness of the latter is higher than that of the former and the rule is (Meg. iii, I): 'They raise up in holiness, but do not lower in holiness.'

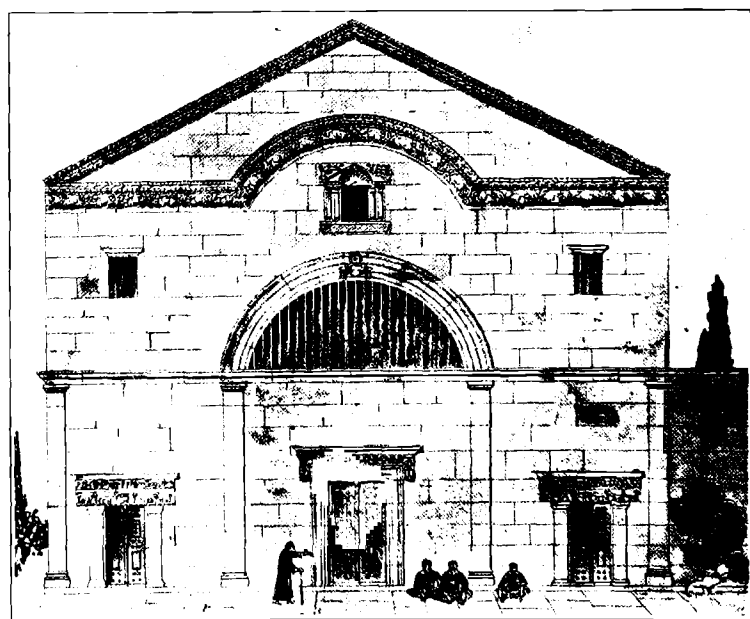
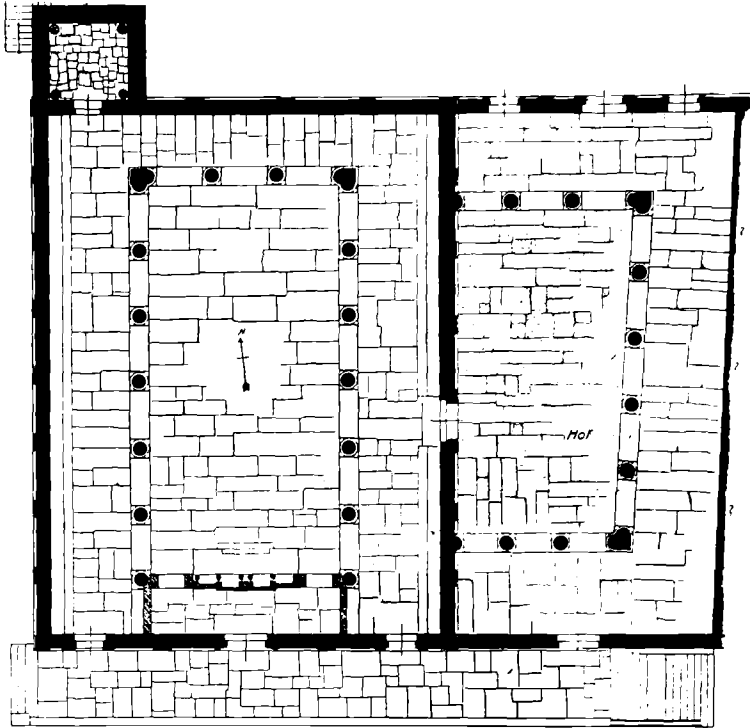
"The synagogue of a village, being built only for the people around it, may be sold on a proper occasion, but a synagogue in a great city, which is really built for all Israelites who may come and worship in it, ought not to be sold at all. When a small community sells its synagogue, it ought to impose on the purchaser the condition that the place must not be turned into a bath-house, laundry, cleansing-house (for vessels) or tannery, though a council of seven of the leading men in the community may waive even this condition (ib. 27b)."

It is a known fact that these laws were not all strictly observed, even in the earliest synagogues on record, and in



Tachau & Vought

7a. INTERIOR OF TEMPLE ISRAEL, NEW YORK CITY,
SHOWING ARK



8. PLAN (ABOVE) 9. FRONT ELEVATION
 GALILEAN SYNAGOGUE AT TEL HUM (RESTORED)

(See p. 165 et seq.)

more recent times, especially since the early part of the nineteenth century, they have been more honored in the breach than in the observance.

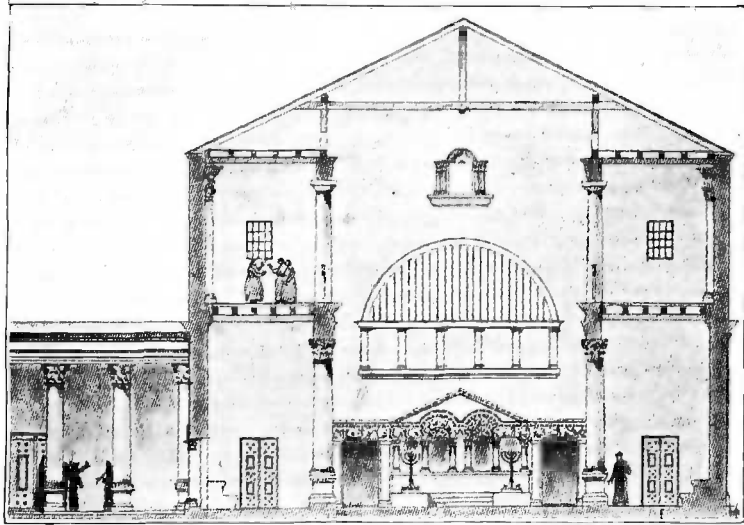
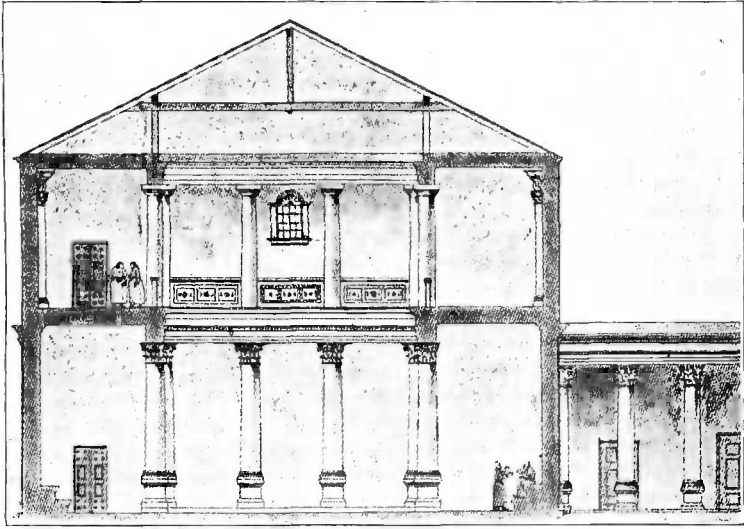
There are numerous ruins of synagogues scattered throughout Galilee which were first discovered in 1852. Some of them have since been excavated. The period of their construction has not been definitely fixed, as there are no inscriptions yet unearthed that give an actual date, but a comparison of their details of decoration with other buildings of this locality places them somewhere between the second and the fourth centuries C. E. Until that period, then, the study of the synagogue is entirely documentary, so that in these ruins we have the first real concrete evidences of the synagogal plan. In the very capable work, "Antike Synagogen in Galilæa," Messrs. Heinrich Kohl and Carl Watzinger, not only have illustrated the actual conditions of the excavations of eleven of these ruins, but have produced very interesting ideas for their restoration. There is great similarity in these structures which are all of the basilica type, showing three entrance doors in the wall nearest to Jerusalem, in every example but one. The buildings are divided into a nave and two side aisles by two rows of columns which support a balcony on three sides. The roof is supported by superimposed columns.

The ark, according to these authorities, is placed between the last two columns in such a way that the central door is blocked, which forces the real entrance through the two side doors. The reason for the main door, which is shown not to have been used for entrance, is obscure. There are no actual remains of the Almemar or the Ark, which were probably movable and constructed of perishable material.

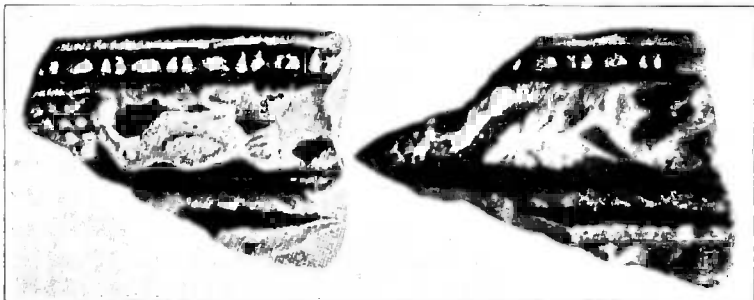
The plan of Tell-Hum, which is here given, shows an open court with a row of columns on three sides. The floor is paved with rectangular slabs of stone. The stairs to the balcony appear at the northwest corner, and there were stone benches all around the room, except at the entrance wall. At Irbid, owing to conditions of the building site, the entrance is from the east and the nave is dropped several steps below the aisles.

In 1921, a synagogue at Aim Duq, near Jericho, was unearthed, which also is in the basilica form, and the floor of the nave is covered with interesting mosaic, divided into three large panels. The first panel represents a Menorah; the second shows the Signs of the Zodiac beautifully drawn with all of the emblems; and the third depicts the scene of "Daniel and the Lions." There are inscriptions in Hebrew entirely intact, but the figures, especially the faces, are partially destroyed, and this is a sure indication to some authorities that the work of destruction was done by the Jews themselves. These findings of the last mentioned synagogue have as yet not been published, but this information is due to the courtesy of Mr. E. L. Sukenik. It can readily be seen that most of the Talmudic laws are violated in these Galilean buildings, although there is strict observance of the code of orientation.

Relying on the discoveries made in these buildings, there are those who claim that the Talmudic laws were formulated only at a later date. There is no doubt that human and animal figures were introduced in the decoration, which is explained by the assertion that at first the law against "graven images" forbade their worship, but not their presentation, and that the modern interpretation was an after-



10. SECTION LOOKING NORTH 11. SECTION LOOKING SOUTH
 GALILEAN SYNAGOGUE AT TEL HUM (RESTORED)
(See p. 165 et seq.)



12. 13. 14. FRAGMENTS OF GATEWAY OF AN ANCIENT GALILEAN SYNAGOGUE

growth. The remains of the decorative motives prove them to be Greco-Roman, and they show startling resemblances to the Byzantine character of ornament, as exhibited in Constantinople and even central France. The workmanship was crude, as might be expected in structures that represented unimportant communities.

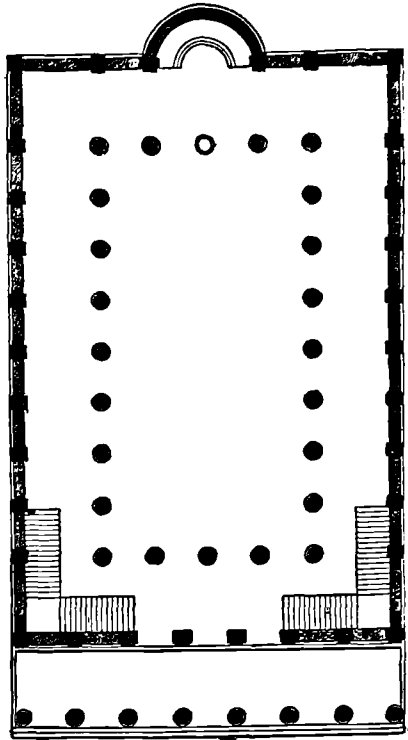
There is a belief that the plan of the synagogues of Galilea was derived from Greek edifices (there are buildings of this type at Delos and at Miletus), and the synagogue at Alexandria which was of an earlier date than these, is described as a basilica or "like a big basilica." Undoubtedly this theory which formulates the belief of a Greek origin, could be applied to synagogues of a much earlier date, but it is logical to suppose that these buildings of Galilee, which show such decided resemblance to the neighboring Roman edifices, were copied from them, or at least were inspired by Roman influence.

It is interesting to note that the synagogue derived its main form from the same source as did the Christian Church, and at an even earlier era. The Roman basilicas existed in all parts of the Empire and were the most convenient structures then existing for purposes of congregational worship. They were used by the Romans for law courts, the merchants' exchange and market hall, no province being entitled to municipal privileges which did not possess one. The principal room in the palace or large house was called a Basilica and was constructed on the same plan.

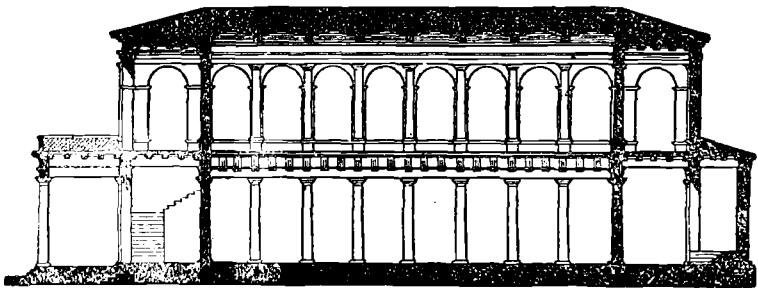
Here was an arrangement, already at hand, quite suited to the needs of religious services which served as a model for the synagogue, as it did later for the Christian church. The plan was uniform, consisting of a parallélogram, divided into

three parts, longitudinally, by two rows of columns or pillars, with galleries over the two outside divisions, supported by the columns and the exterior walls. At one end was a tribune for the judges, arranged in a semi-circle. In a few instances, there was a tribunal at each end, with the entrance at the side. This general plan for the synagogue, like that of some Christian churches, has persisted until the present day.

At first, the space set aside for the women was placed on the ground outside of the main mass of the structure, but as the



18. PLAN OF PRIMITIVE ROMAN BASILICA

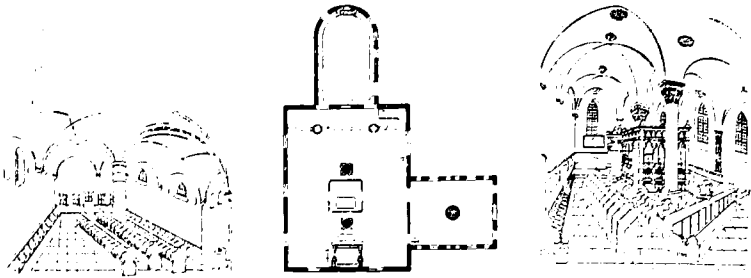


19. SECTION OF PRIMITIVE ROMAN BASILICA

available ground area became limited, especially in the cities, this space was moved to the upper stories, and finally, with the relaxing of a strict law to house the women behind screens, the galleries were turned over to them. Connected with the synagogue (again analogous to the atrium of the Christian basilica) was an open Court, in the center of which was a fountain or basin for washing before entering for services. This court also served for various ceremonials which had to take place under the open sky. Here weddings were celebrated, the blessing of the New Moon was chanted, and the Sukkot services were held. In many of the crowded Ghettos, the streets were interrupted by open spaces, where communal outdoor ceremonies might take place.

One of the first changes in the basilica plan that manifested itself in the Christian churches was the introduction of a transept, thus producing the cruciform plan. In the western part of the Roman Empire, the plan developed was that of a Latin cross—the transept being short and the nave long. In the eastern part, the plan developed was that of a Greek cross, the four arms being of equal length. The synagogue plan never developed the Latin form, but there are examples of the Greek type in those localities in the east which came in contact with the similar forms in Christian churches and Mohammedan mosques. In very recent times, there is a distinct tendency towards this Greek form, as will be shown later, which curiously enough was re-inspired by eastern models, aided by the principle of modern construction and the desire to seat as many persons as possible near the reading desk.

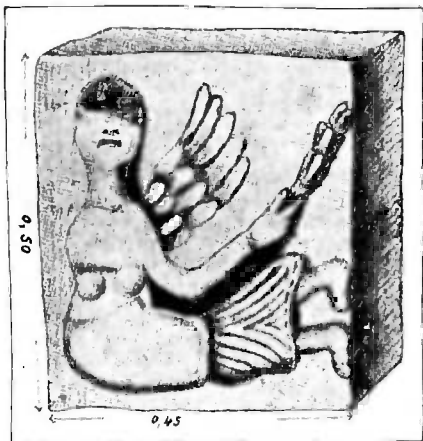
There is still another type of plan of which there are many examples in Central Europe that persisted from the eleventh



20. WOMEN'S SECTIONS, PLAN AND INTERIOR OF
SYNAGOGUE AT WORMS

to the eighteenth centuries. This showed a hall divided into two aisles by a central row of columns, usually limited to two in number. One of the oldest synagogues of this character is found at Worms. Indeed, it is accredited by some to be the oldest synagogue still standing in which services are held. The entrance is through a single door in the south. To the right are steps that lead to a balcony, on the left are the alms boxes. The main room is divided into two aisles, by means of two columns, and between them is located the square Almehar, served by steps on either side. The Ark is placed against the east wall on the axis of the room, flanked on either side by brass Hanukkah candlesticks. The women's section is to the south, its ceiling vaulting springs from a single column in the center of the room. To the west, stands the so-called Rashi Chapel, which to-day serves as a reliquary. This type of two-aisled plan is found not only in the old synagogue at Worms, Germany, but also in Prague, Bohemia; Regensburg, Austria; Passau, Galicia; Astrog, Russia; and Damascus, Syria.

It is claimed by some authorities that the employment of



15. FRAGMENT OF GATEWAY,
ANCIENT GALILEAN SYNAGOGUE



16. CAPITAL OF A COLUMN,
GALILEAN SYNAGOGUE



16a. CAPITALS IN ST. MARKS, VENICE



Courtesy Fink & Wagner's

17. RUINS OF AN ANCIENT SYNAGOGUE AT KAFR BIRIM

two columns was not accidental or occasioned by constructive necessities, but that they were consciously used to represent the two columns—Boaz and Jachin—that flanked the entrance to Solomon's Temple. But a more advanced research reveals numerous examples in German Christian churches, where the two piers or columns have been employed to divide the building into two aisles and to decrease the span of the vaulting. Examples of such buildings are: the Nikoli Chapel, St. Marien and Zurhoheg at Soest; the churches Berschis, Bedim and Methler at Paspels. In the small Church of the Holy Cross at Krakau, a single pier in the center of the church supports the vaulting of the ceiling, which is just the same type that is found in the women's section in the synagogue at Worms. Beyond a doubt, then, this style of two-aisle synagogue was borrowed from co-existing religious edifices, and we must abandon all thought that here at least the Jews had developed a distinct architectural motive of their own.

And so it is evidenced that the synagogue in general adopted three types of plan, namely, the basilica, the Greek cross, and the two-aisle type. But no matter which one of the three types was selected, the arrangement for the conduct of the services and rituals remained fixed, and continued unchanged until the nineteenth century. The Ark was placed against the short wall, situated nearest Jerusalem, and was elevated upon a platform and served by steps. The Almemar or reading desk, also elevated above the floor, stood in the center of the room facing the Ark, and a wide aisle, connecting the two, furnished ample space for the procession and ceremonials. The women, being assigned to a separate section that was located either on the ground floor

or in an upper story, had no view of the services; indeed, they were actually cut off by a pierced partition or by a grille, and no provision of any kind was made for their comfort. This arrangement is still adhered to in the edifices of Orthodox congregations, the only modification being a little more favorable to the women who, though still segregated, may enjoy the privilege of seeing and being seen.

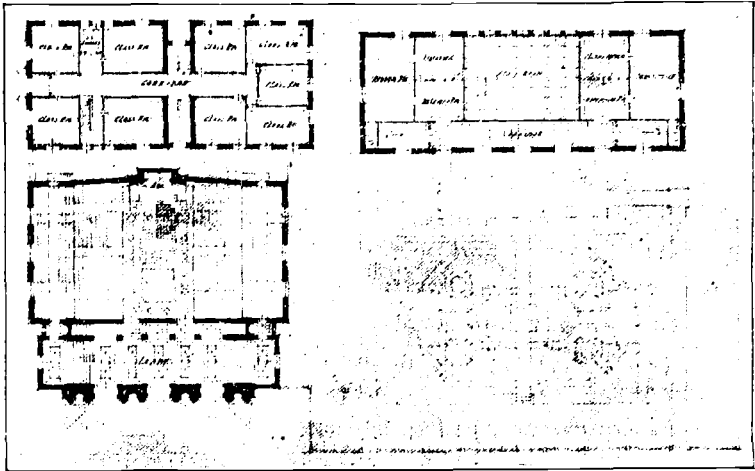
The early part of the nineteenth century saw great changes in the condition of the Jews. Their emancipation from the seclusion of the Ghetto brought them into closer association with the refinements and culture of their neighbors. The long centuries of restraint were cast behind them, and they felt free to participate in the common life of the community, and therefore had the desire to express themselves and reveal something of the powers that were stirring within them.

The hold of tradition upon the individual became less significant, external religious observances gradually lost some of their importance, especially within the family, so that the synagogue became more and more the center for the preservation of Judaism. The Jews found that the religious edifices of their neighbors made an appeal to the emotions of the worshippers through beauty of form, through the subtle charm of subdued lighting, and through harmonious sound, and so they began to emulate these characteristics in order to stimulate the religious interests of their own people. It was, therefore, not merely the love of ostentation that caused these changes, but a real desire to make the synagogue an inspiring place of worship to the congregation.

The first synagogue in which reforms were carried out was

the Reform Temple Verein at Hamburg in about 1817, and it was at this period that the name Temple came to be used to designate the synagogue of the reform congregation. This use of the term "Temple" was the result of the position taken by advocates of Reform Judaism that Israel was no longer in exile and that every house of worship was a temple just as sacrosanct as had been the Temple at Jerusalem.

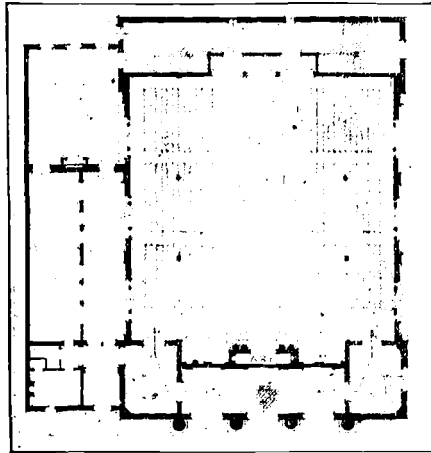
The curtailing of the ritual made the greatest changes in the plan of the building. The large space surrounding the *Almemar* was eliminated, as it was no longer needed after the suppression of the processional, and the reading desk was moved to a platform directly in front of the Ark, the elimination of this aisle space permitting an increase in the number of seats. The high lattice or grille concealing the women was abolished and they were even allowed to take their places beside the men of the family. The organ was introduced with a choir, and was placed either near or above the ark, or directly opposite to it in the balcony over the entrance; stationary benches or pews were introduced superseding the old movable desks. The fore court was reduced to a simple vestibule and in many cases no thought was given to orientation, so that the congregation no longer faced Jerusalem when at prayer. A large section of the Jews, however, did not subscribe to these changes, and their buildings retained much of the older arrangement for services, but even they abolished the high screen, though the women were still segregated. It was at this time that the galleries, which existed in the basilica type, began to be utilized exclusively for the women, and this procedure came into general use and with few exceptions continues to be the most popular form today.



Tachau & Vought, Architects

21. PLAN OF MIKVEH ISRAEL SYNAGOGUE AND GRATZ AND DROPSIE COLLEGES, PHILADELPHIA, PA.

One interesting variant, however, is to be found in the new Mikve Israel Synagogue in Philadelphia. Here it was decided that it was too much of a physical hardship for the women to climb to a high gallery, so the old idea of stationing the women's section near the ground level was revived. It is arranged on either side of the building, and can easily be reached by a few steps leading from the common vestibule, which lies in front of the hall of worship. The Almemar is near the long west wall between the two entrance doors for men and opposite the ark, which is here developed into the principal architectural motive of the interior. An aisle, large enough to permit of the processional, connects the Almemar with the ark. It is probable that this synagogue boasts the only arrangement of this character in America.



Courtesy of the American Architect

22. PLAN OF SHEARITH ISRAEL SYNAGOGUE

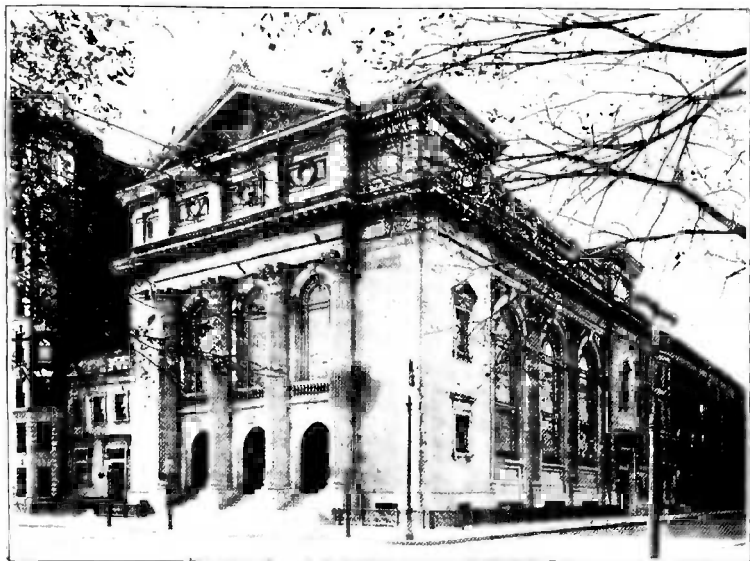
Another interesting variant occurs in the plan of the Shearith Israel Synagogue in New York. The location on the west side of an avenue, forced the entrance in the east wall of the building. In order to retain the proper legal orientation, the ark is placed between the entrance doors, and the congregation is veered about on entering, so that in prayer, they may face the ark and look towards the east. This arrangement is like that of the Galilean synagogues, but was arrived at independently, as at the time of construction the Galilean excavations had not been completed.

Types of plans other than the Basilica (except in some few instances in the east) were gradually abandoned during the nineteenth century by both the Orthodox and Reform synagogues of Europe and America. Tradition was strongly in favor of this form and it was the only one that adequately

fulfilled all the requirements then known. The growth of congregations, the increased demand for seating space, and the high cost of building sites, which necessarily confined the ground area, made the retention of the galleries almost imperative.

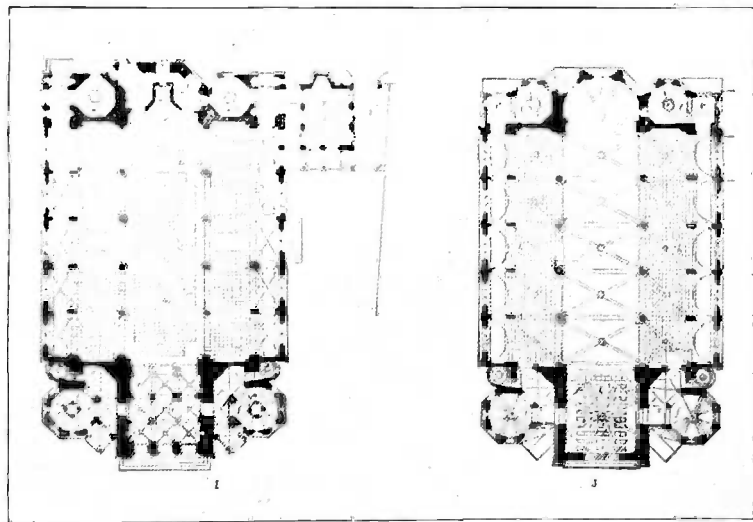
Those activities which were connected historically with places of worship, such as school rooms and halls for social purposes, began to take on a more important rôle, and as these rooms were almost invariably placed in the basement under the synagogue, it was found that the long narrow type of plan afforded a greater area for admitting outside light. The columns that supported the galleries, continuing up, also made the construction of the roof more simple, and the narrow auditorium was easily lighted by side windows, even if placed on a narrow court, which was usually the case in large cities. This basilica type of plan was carried to the highest development with important vestibules, staircases and elaborate arrangements of piers and vaulting. An example of this style may be seen in the Synagogue at Munich.

No sooner, however, had this plan been settled upon than defects of great importance became evident. As the building grew larger, the depth of the Hall became so great that those in the rear had difficulty in hearing and seeing the services. The galleries were uncomfortable, and it was hard to see from such a distance the activities taking place around the ark. There was also the extra effort of climbing the stairs. All these discomforts tended towards making the seats in the galleries undesirable, and those that were forced to take them, were of necessity, the less wealthy members of the congregation. This ultimately led to certain demoralizing social distinctions. Furthermore, the columns that sup-



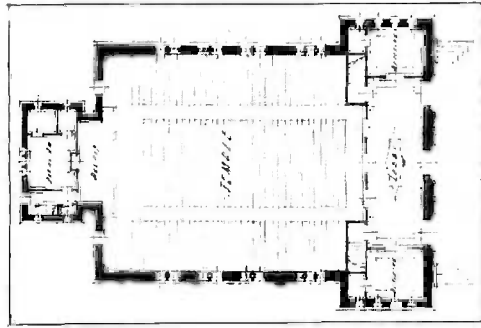
Courtesy the American Architect

23. SHEARITH ISRAEL SYNAGOGUE, NEW YORK CITY
(See p. 175)

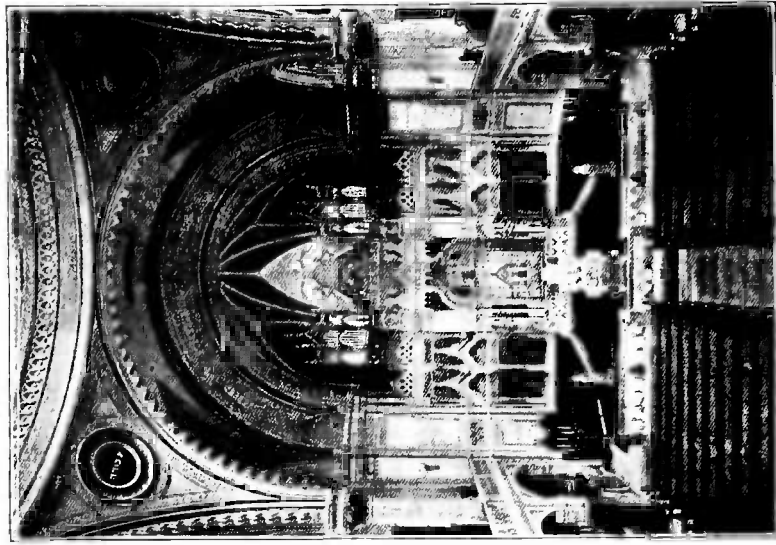
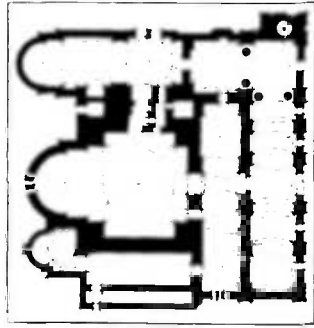


24. PLANS OF MAIN AND SECOND FLOORS, SYNAGOGUE AT
MUNICH, GERMANY (See p. 176)

25. PLAN, BETH
ISRAEL,
ATLANTIC CITY, N. J.
Tachan & Vought, Architects



26. PLAN OF KAHIRI
DJAMI MOSQUE
(FORMERLY A
CHRISTIAN CHURCH)



27. INTERIOR OF SYNAGOGUE AT SZEGEDIN,
HUNGARY
(See p. 179)

ported the balconies and roof obscured a clear view of the ark, and consequently were a source of annoyance.

The architects strove valiantly to overcome these defects and resorted to many expedients, but none of them proved entirely satisfactory. The floor was inclined towards the ark to counteract the great depth of the auditorium, and this improved the view and had a consequent psychologically beneficial effect upon the hearing. Likewise, the steppings in the balconies were increased in height, and this somewhat improved the sight lines, but it did not increase the comfort.

In some cases, the stairs leading to the balcony were arranged to ascend from the body of the Hall instead of from the vestibule, so that at least there would be no distinction on entering and leaving the building. This arrangement, however, increased the difficulty of exit after services, the noise of those mounting the stairs was often distracting, and the stigma of balcony seats remained. The columns supporting the balcony, following the precedent of the theaters of the day, were reduced to a minimum in size, and they, with the accompanying decorations of wrought iron arches and brackets, were left exposed. This reduced the interruption of sight lines but detracted largely from the dignity of the interior.

Such was the condition that existed in the beginning of the twentieth century, throughout Europe and America. It will be interesting to follow the difficult paths of the architects who tried to correct, as well as they could, the defects that have here been indicated.

The first effort to do away with the annoyance of columns was naturally to reduce them in numbers, and to place those that were retained in such a manner as to interfere as little

as possible with the view of the ark. The columns above the gallery and those supporting the roof were eliminated entirely. In the smaller buildings, the side balconies were omitted altogether, as seats situated there were of little value, and the supporting columns were the most troublesome to handle. The rear balcony was retained and was carried back over the entrance vestibule, for the few columns required for its support annoyed few seatholders in the rear of the hall.

In the larger synagogues, the desire to bring all the seats as near to the ark as possible necessitated enlarging the width of the hall, and the pews were placed on a curve, with the pulpit as the center. The slanting floor was retained.

The widening of the Auditorium made the plan more nearly square in form. The elimination of the columns supporting the roof required a change in the ceiling arrangement and construction. It was still felt that the demand for increased seating capacity necessitated the retention of the balcony.

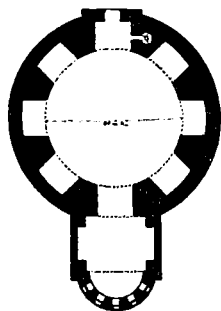
The designer now began to search for an architectural form that would best express these requirements, and found it in the churches and mosques of the near east. The Greek cross plan supporting a pendentive dome seemed a splendid solution which was strengthened by historical precedent. The square plan was achieved, the arms of the cross furnished ideal recesses to receive the balconies, and a graceful roof covering was assured.

The cantilever system of support that had been developed in theater construction was a modern idea that could here be used to good advantage, and it was soon seized upon, with the result that the columns under the balcony could be

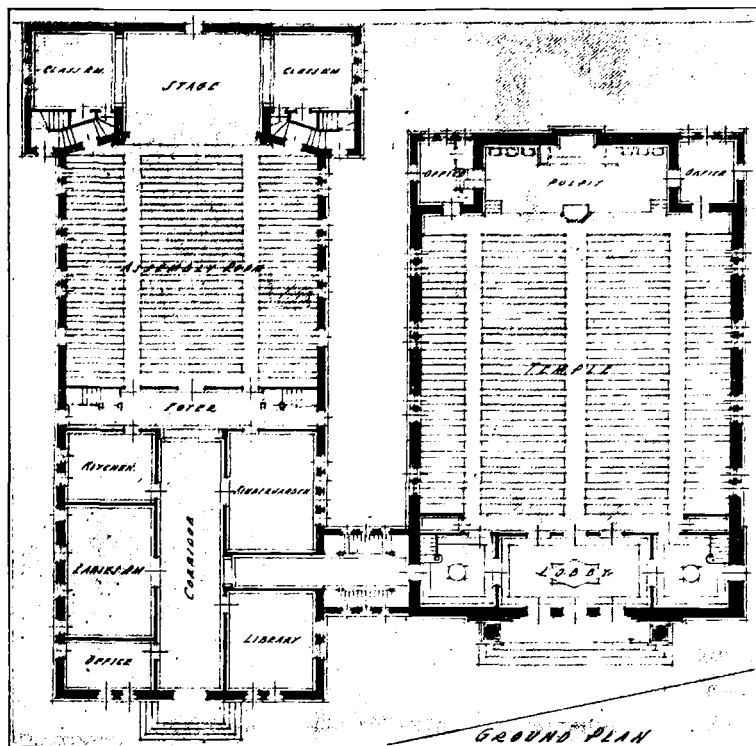
eliminated. A number of buildings of this type have been erected, usually however with many variations upon the original prototype. One favorite device is to eliminate the masonry under the four arches supporting the dome, and to hold them up by a single column at the corner intersection. This treatment, however, is found to produce an effect of instability, with a consequent loss of dignity. Recently, a number of plans have been developed in circular, elliptical and polygonal forms, which again owe their inspiration to Byzantine influence.

To obtain the imposing effect that such designs require, the dome must be of a lofty character, and so pretentious a venture can only be accomplished at great cost; and in many instances such height results in poor acoustics, a very serious defect in an auditorium.

Some architects, either because they have an aversion for the Greek cross type, or because the conditions of the site necessitate it, have changed this Byzantine form by widening the lateral arms, which brings the plan back more nearly to the Basilica type. When this occurs, the side balconies are usually omitted, as are all supporting columns; and the roof is treated flat with coffers or panels. There are also examples of the Greek cross plan and its variants, which are surmounted by a square or octagonal dome. This plan is advantageous because an appearance of height may be attained, although the ceiling remains low enough to avoid acoustical difficulties. As will be shown later, these type



28. ROUND
BYZANTINE PLAN



Tachau & Vought, Architects

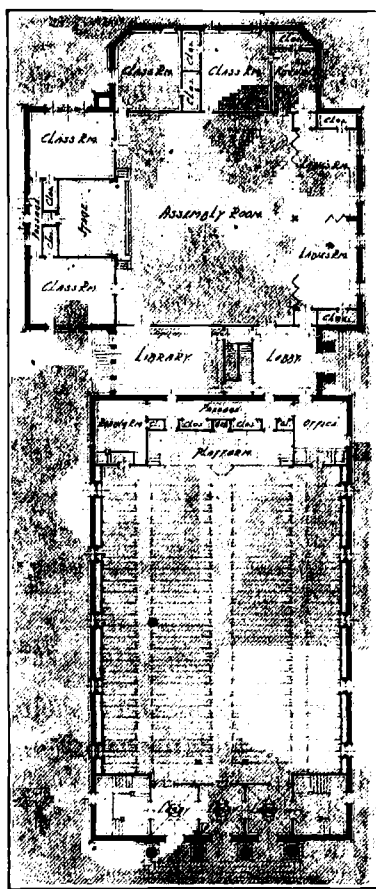
29. PLAN OF SINAI TEMPLE, MT. VERNON, N. Y.

plans, although inspired by the Byzantine, have been successfully carried out with classic details and ornamental adjuncts.

The development of synagogal plan has now been traced from earliest times to the present day, and this development is seen to differ in no respect from the evolution of all architectural forms over a period of years. It has been a gradual yielding to the stress of usage and a continual correction to

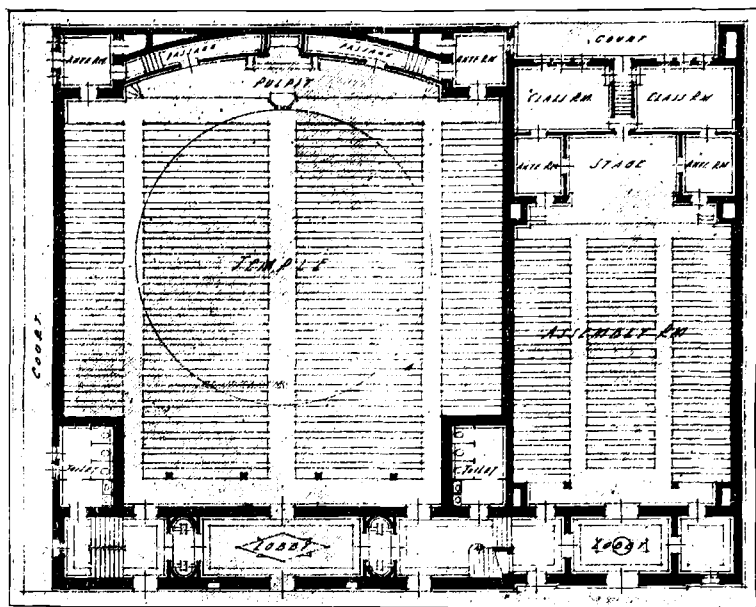
meet practical requirements. That it has, perhaps, not grown as freely as other forms, is due to the fact that there have been interruptions without number, that there has been at no time a large, skilled body of artists and craftsmen endowed with a great aesthetical purpose and the zest of continuous application to one architectonic thought (as in all other ecclesiastical expressions) and to the continual destruction of monuments that might have acted as impelling forces or at least have served as guides to those who came after.

A distinct style of architecture has ever been the result of an extremely slow development of architectural forms by a large body of artists who put forward each new effort only after careful consideration of preceding attempts, and whose single-minded purpose is to create something more rarely beautiful and more fitting than was ever created before.



Tachau & Voughl, Architects

30. PLAN OF B'NAI ISRAEL
SYNAGOGUE, ELIZABETH, N. J.



Tachau & Vought, Architects

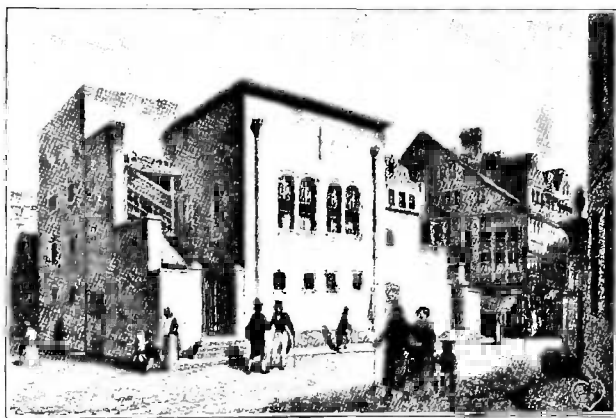
31. PLAN OF TEMPLE ISRAEL, NEW YORK CITY

These artists must be sheltered from too great an outside influence, and the conditions must include a mental and physical tranquillity. What is called character in a building, emanates from the repeated use of certain forms in the construction of that particular class of structure, which in time becomes symbolic. These conditions never prevailed during the long course of synagogue construction, and without all those beneficent factors so necessary to the development of an individual art, how can there be a distinct Jewish style of architecture?

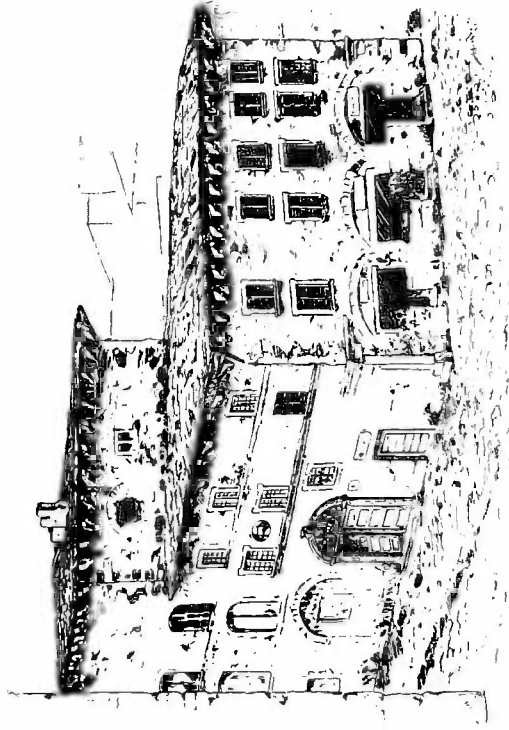
Even when they were a compact nation, the Jews had but few craftsmen skilled in the building trade, as may be deduced from the fact that they borrowed their workmen



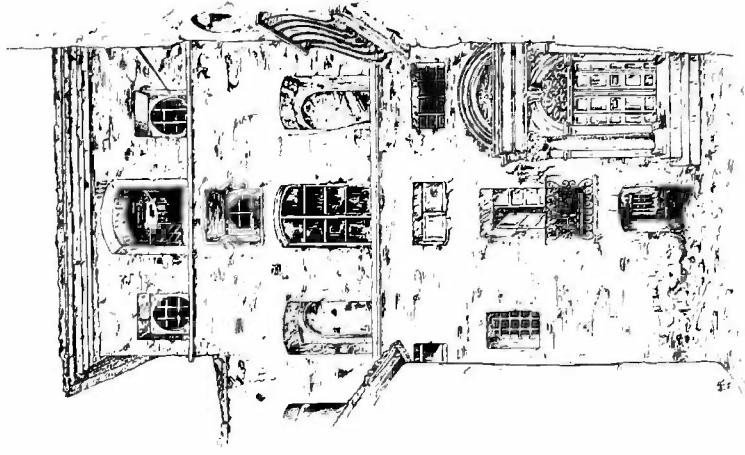
32. ENTRANCE TO SYNAGOGUE AT JASSY, ROUMANIA



33. NEUSCHULE AT FRANKFURT-AM-MAIN



34. SYNAGOGUE AT LEGHORN, ITALY



35. SYNAGOGUE AT SIENNA, ITALY
(See p. 184)

from Phoenicia and Egypt when they erected Solomon's Temple. And later, periods of continuous tranquillity came at rare intervals. First expelled from one country, then settling in another, they were at the mercy of artisans in their adopted land; so we inevitably find synagogues built in the style of architecture that happened to flourish at the particular time in which they found themselves in some temporary abode.

Even in the days before the nineteenth century, when a comparative freedom was allowed the Jews, they made little attempt at distinct characterization in the construction of their houses of worship. Indeed, there seemed to be a definite effort to suppress any features that might distinguish them from neighboring houses, and to render them as inconspicuous as possible. The law that synagogues should dominate the surrounding structures was of necessity abandoned, and the desire for effacement was carried to a point where the buildings were actually unrecognizable as synagogues.

It is interesting to note the differences between the lavishness of the interior, free from the gaze of hostile eyes, and the simplicity of the exterior. One of the earliest examples of an attempt to express on the exterior the arrangement of the interior, and at the same time give it a distinctive character, is found at Frankfort-on-the-Main. Behind a low wall are seen the steps to the women's gallery; the balcony level is clearly expressed by large windows, and two colonettes are employed to flank the main mass, which were undoubtedly intended to recall the two columns of Solomon's Temple,—Boaz and Jachin. To the right is the main entrance, and the open court is enclosed by a low wall.

In the synagogue at Leghorn, Italy, the three aisles and

balcony levels are frankly expressed on the façade, which undoubtedly has influenced many designers of a later date. It can be clearly noted that the details of these synagogues followed closely the prevailing types of architecture then in vogue in the various countries. The architectural arrangements of the interiors are very similar, the only variation being in the position of the Almemar. This is always placed on the axis of the ark, usually in the center of the room, but in some cases nearer to the opposite wall.

To illustrate these points, a number of buildings are here reproduced, to show how the various problems were solved in different countries:

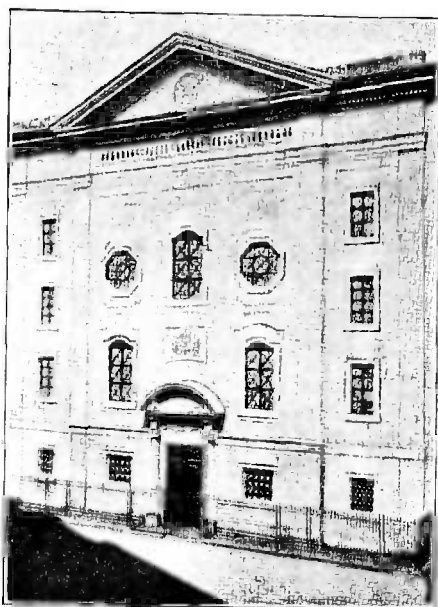
ITALY:—The synagogues at Siena and Pesaro and the building of the five synagogues in Rome cannot be distinguished from the secular buildings of their own period. Rich interiors at Padua in the Italian Renaissance style show a vault in the ceiling over the aisle between the Almemar and the Ark.

FRANCE:—There are numerous synagogues in the various French styles of architecture which show the prevailing influence of the period.

HOLLAND:—The synagogue at Rotterdam takes on the characteristics of other Dutch buildings. (See *The Jewish Encyclopedia*, Vol. XI, p. 624.)

JERUSALEM:—A building which resembles a mosque, even including a minaret, and the synagogues at the graves of Rabbi Meir in Tiberias and of Rabbi Simeon ben Jochai near Safed show a decided feeling for Eastern tradition.

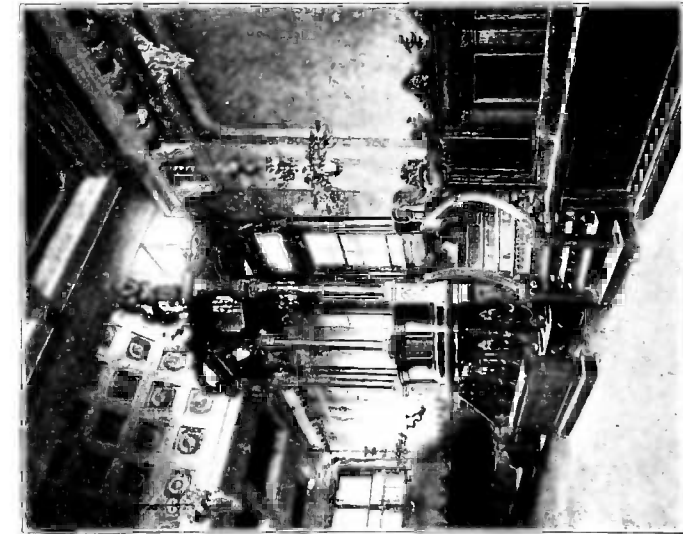
ENGLAND:—Here are to be found many synagogues that resemble the churches of Sir Christopher Wren and Inigo



36. SYNAGOGUE AT PESARO, ITALY

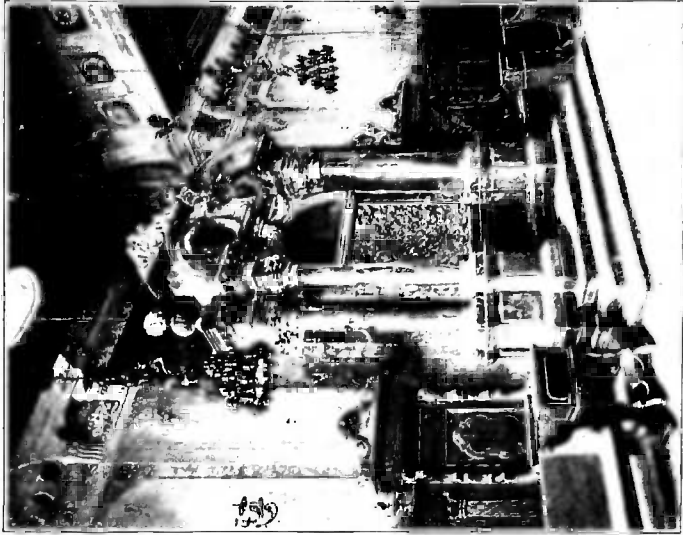


37. FIVE SYNAGOGUES AT ROME, ITALY
(See p. 184)

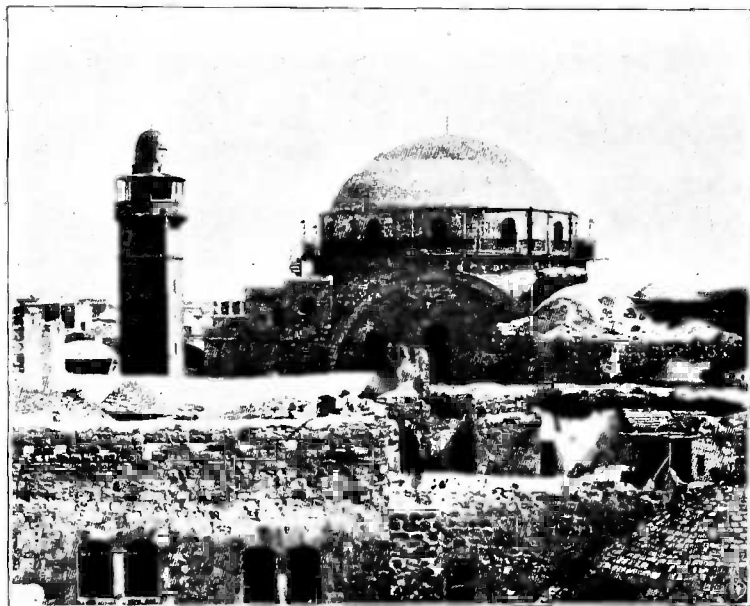


38. ARK

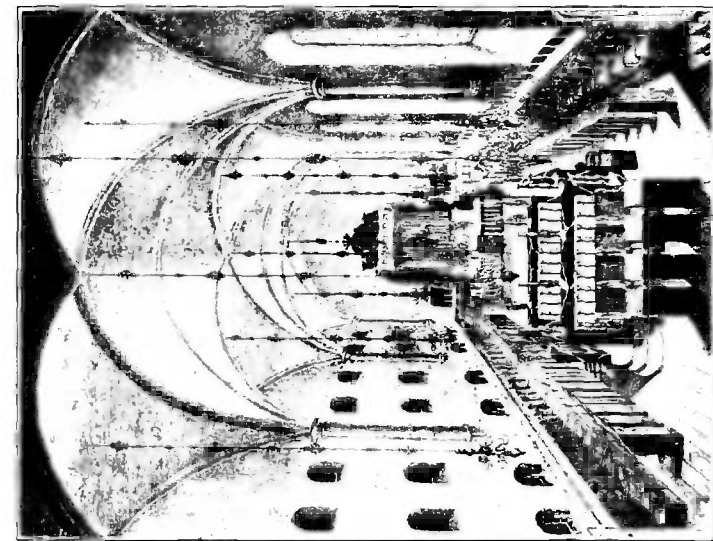
VIEWS OF INTERIOR OF SYNAGOGUE AT PADUA, ITALY. (See p. 184)



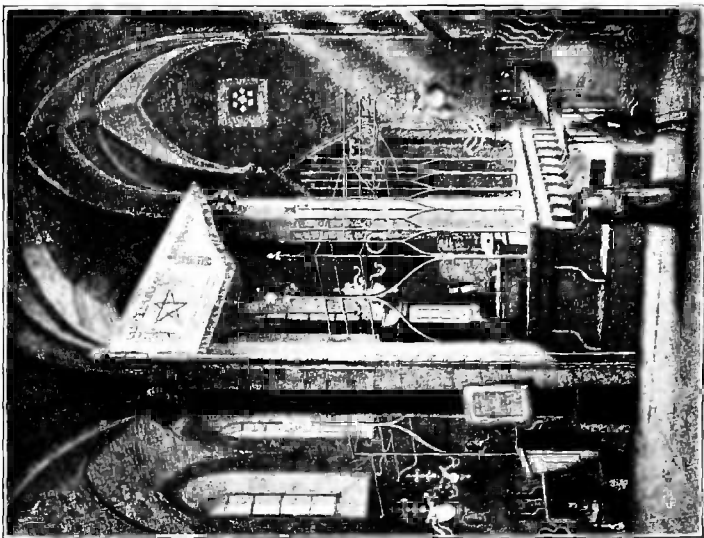
39. ALMEMAR



40. SYNAGOGUE AT JERUSALEM (See page 184)



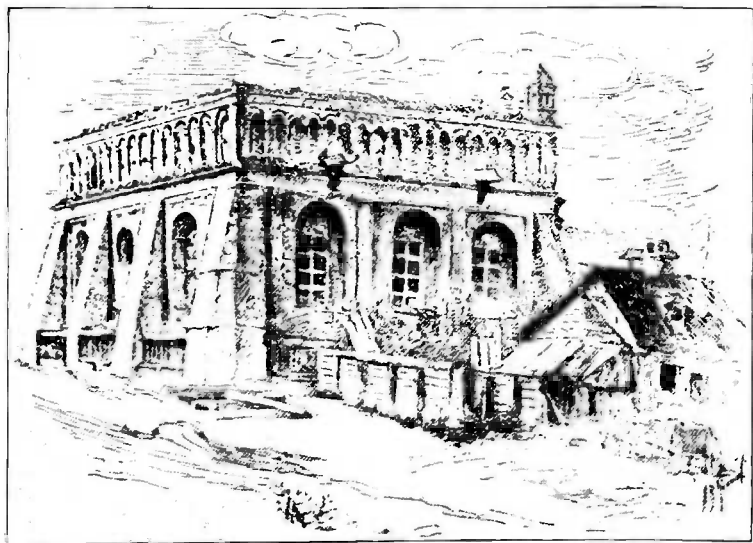
41. INTERIOR OF SYNAGOGUE
AT FRANKFURT-AM-MAIN, GERMANY



42. INTERIOR OF SYNAGOGUE
AT PRAGUE, CZECHO-SLOVAKIA
(See p. 185)

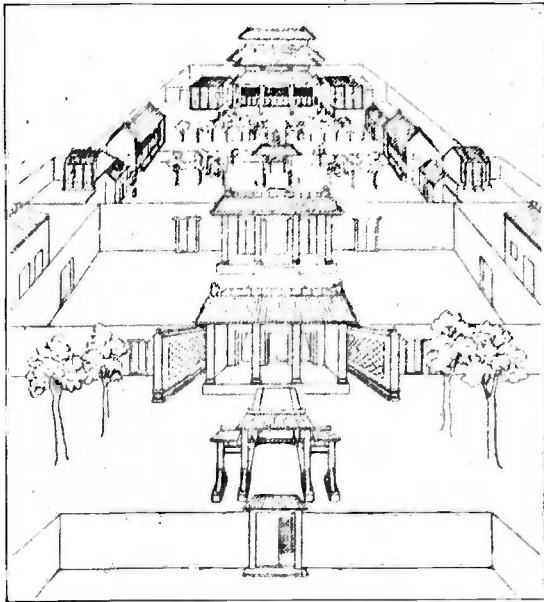


43. SYNAGOGUE AT NAGASAKI, JAPAN

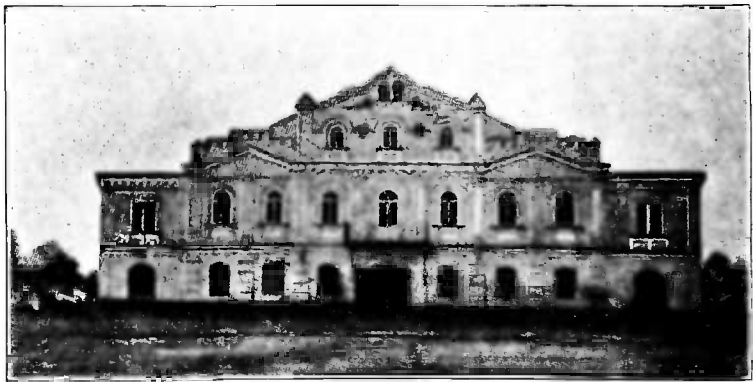


44. SYNAGOGUE AT ZOLKIEV, POLAND

(See p. 185)



45. SYNAGOGUE AT KAI FUNG FOO, CHINA



46. SYNAGOGUE AT BERDITCHEV, RUSSIA

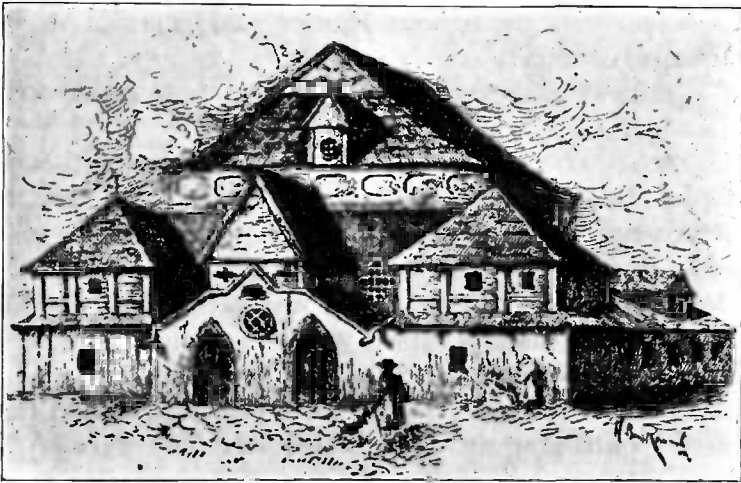
(See p. 185)

Jones, as exemplified in the fine interiors of Great St. Helene and Dukes Place in London.

GERMANY:—A Romanesque synagogue in Worms, and a graceful Gothic structure without aisles in Frankfort-on-the-Main.

BOHEMIA:—Interesting Gothic Synagogue in Prague.

JAPAN:—A synagogue at Nagasaki which is not easily distinguishable from a native pagoda.



47. WOODEN SYNAGOGUE AT WILKOWISK, POLAND

GALICIA:—A building that resembles a fortified castle whose battlement might well have served for defence.

CHINA:—Kai-Fung-Foo of the distinctly Chinese type.

RUSSIA:—Many synagogues with the elaboration and confusion of detail which are characteristic of Russian architecture, also numerous interesting wooden synagogues which

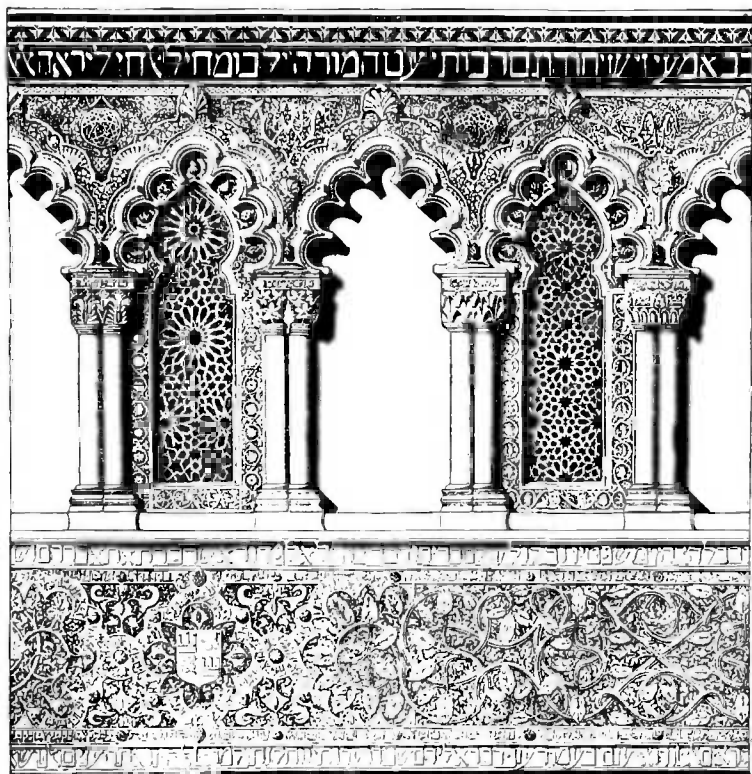
are decidedly native in character and show no Jewish characteristics.

SPAIN:—A magnificent synagogue built in the fourteenth century at Toledo, which afterwards became the church of Nuestra Señora de San Benita (del Transito); also the synagogue that is now called Santa Maria la Blanca, both very handsome buildings, revealing the Spanish impulse and now preserved as national monuments. These two examples together with the Alhambra, served as models for innumerable buildings throughout Europe and America in the nineteenth century.

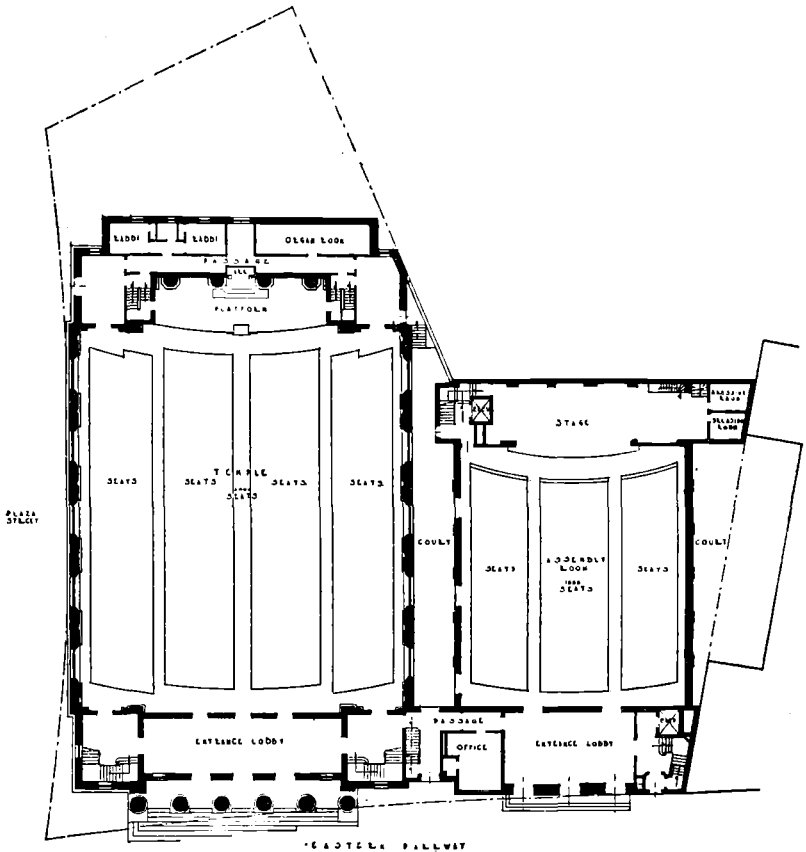
CANADA:—Synagogues very much like those constructed in London.

UNITED STATES:—The little synagogue at Newport, R. I., built in 1763, designed by a noted architect of the day, an early synagogue in New York, and the first synagogue to be erected in Charleston, South Carolina, are all built in the Colonial or Georgian style, and show that even in America, local types in the prevailing style of architecture were adopted by the Jews for their houses of worship.

A very interesting development in synagogal plan that has confronted the architect in the last few years is the establishment of a "social center" in connection with houses of worship. The idea sprang from a desire to widen the scope of religious influence and to awaken the interest of the younger members of the community to their religious and social obligations. These centers express the impulse once again to make the synagogue the center of the community in all things Jewish, and so they are really but an attempt to go back to early historic conditions. These buildings are usually placed in conjunction with the Sabbath School, so



48. DETAILS OF DECORATION IN SYNAGOGUE OF TOLEDO
(NOW CHURCH OF NUESTRA SENORA DE SAN BENITA) (See p. 186)

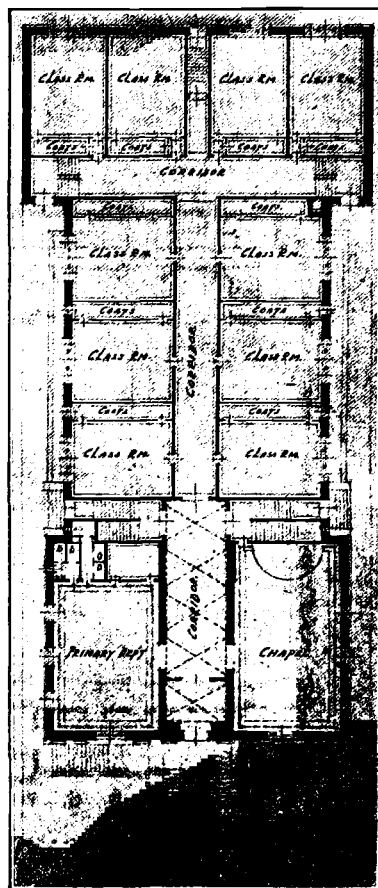
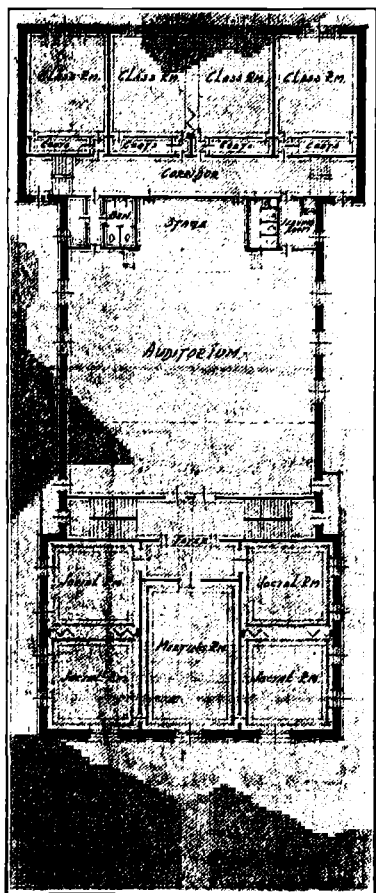


Arnold Brunner Associates, Architects

55. PLAN OF SYNAGOGUE AND COMMUNAL HOUSE,
UNITY TEMPLE, BROOKLYN, N. Y.

that the classrooms during the week days can be used for various social activities.

The chief element is the Auditorium, which is primarily the Assembly Room of the Sabbath school, and it usually has a stage at one end that can be used for theatricals and the showing of motion pictures. It can also be utilized for



Tachau & Vought, Architects

58. FIRST FLOOR PLAN,

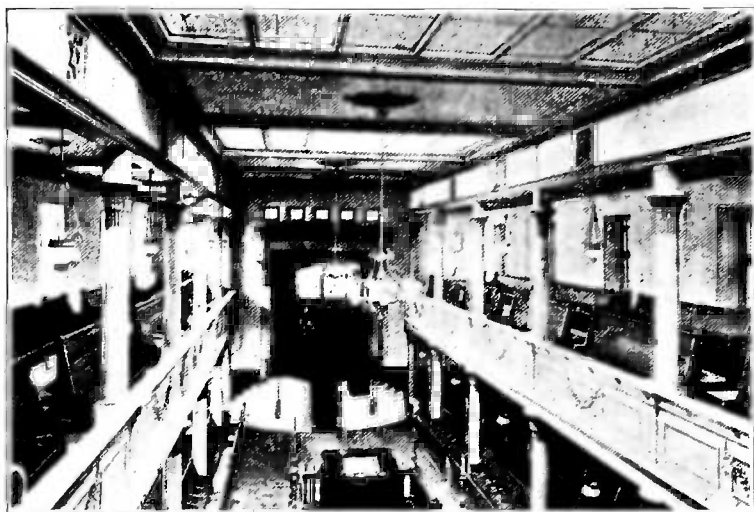
59. SECOND FLOOR PLAN,

KENNESETH ISRAEL SYNAGOGUE, PHILADELPHIA, PA.

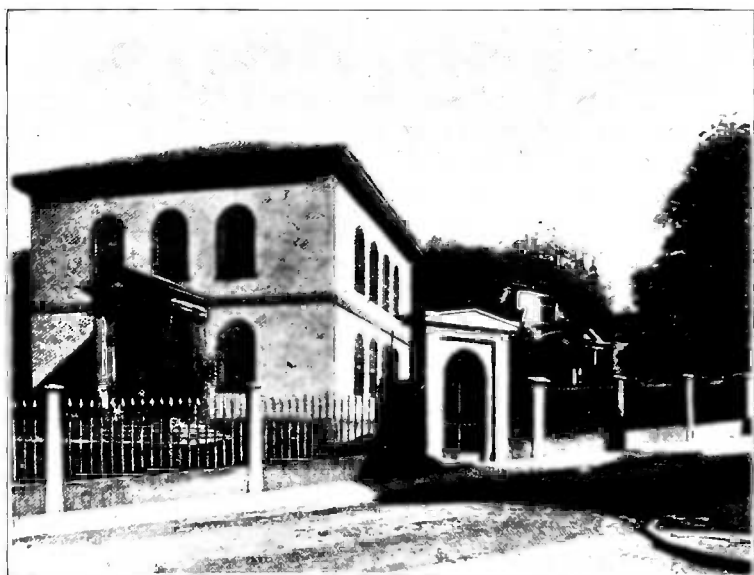
dances and other social affairs. A gymnasium is considered to be a necessity. A series of rooms are also required for women's activities, in which Girls' Clubs can meet and



49. INTERIOR OF SYNAGOGUE OF TOLEDO
(NOW CHURCH OF SANTA MARIA LA BLANCA)
(See p. 186)



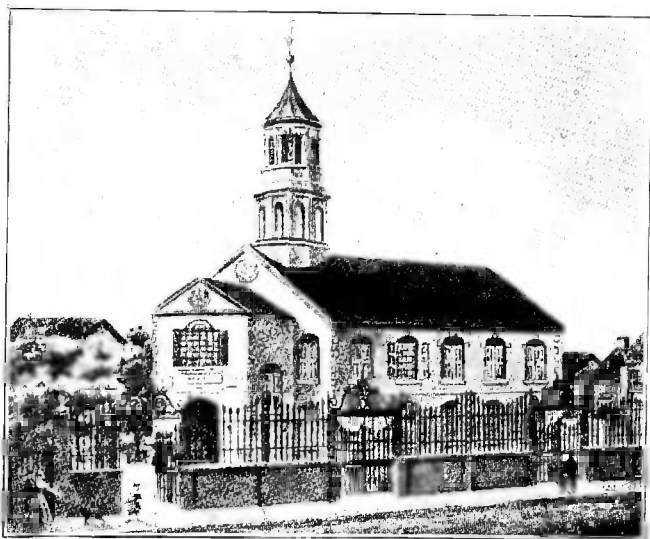
50. INTERIOR OF SPANISH AND PORTUGUESE SYNAGOGUE
MONTREAL, CANADA



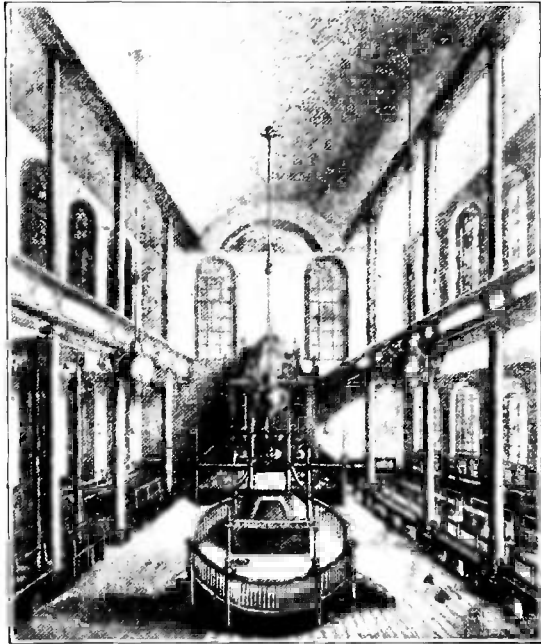
51. JESUHATH ISRAEL SYNAGOGUE, NEWPORT, R. I.
(See p. 187)



52. OLD ELM STREET SYNAGOGUE, NEW YORK CITY



53. EXTERIOR OF FIRST SYNAGOGUE OF CONGREGATION
BETH ELOHIM, CHARLESTON, S. C. (See p. 186)



54. INTERIOR OF FIRST SYNAGOGUE OF CONGREGATION
BETH ELOHIM, CHARLESTON, S. C. (See p. 186)

where classes in sewing, cooking and the domestic arts find adequate space and comfort. The kitchen is usually placed conveniently near the auditorium and the ladies' room. Boys' club rooms are also included in the scheme and a swimming pool and bowling alley are part of the program. Very often a Chapel forms one unit in the group of buildings, which is reserved for weddings, funerals and summer services, and when necessary, it can be utilized to house the overflow that gathers on holidays. This building, when grouped with the synagogue, composes an interesting mass, although there are instances, especially in the large cities, where area space is at a premium, where one tall building houses both the social and the religious activities, the synagogue occupying one or two of the lower floors.

History has revealed the fact that a distinct style of architecture existed in all countries at all times, up to the beginning of the last century. Artists, therefore, were not embarrassed with the selection of decorative details, as all of them quite naturally used the same prevailing forms. And so with the designers of synagogues. They followed the existing modes without question, contenting themselves with the introduction of a few characteristic Jewish symbols to distinguish their buildings from those of their Christian neighbors.

At the beginning of the last century, however, all stylistic developments languished; indeed, art as a universal language became almost inarticulate, and the architects having nothing new to say, a series of revivals of the older forms of architecture was resorted to. For the first time in history the strange phenomenon occurred, that in each country of the world, buildings of quite different styles were simul-

taneously in course of construction. America suffered the most. Owing to the lack of definite tradition and to the mixed character of the people, its architectural form became exaggerated and confused and the style of a building was determined by the personal predilection of the owner or the architect.

There is ever inherent in a people the desire to express their ideals in concrete form, and architecture has ever been the noblest medium. The Jews of today are no exception to this rule, and there is an urge among them, amounting to an almost passionate demand, that their religious ideas should find visible expression in the creation of their houses of worship. The difficulties of accomplishing this seem to be fourfold:

(a) The large mass of Jewish people, having assembled from many different countries, bring with them definite ideas as to what a synagogue "should look like", so that each community or even each congregation has ideas of its own particular artistic expression. And there is no central body to dictate, or even to suggest a clarification of conflicting tastes.

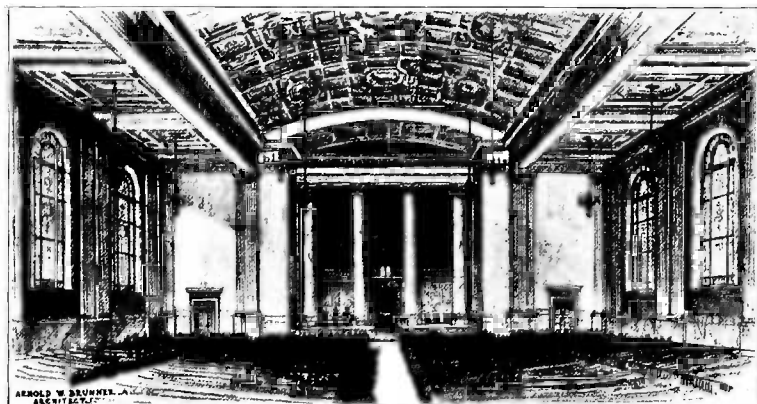
(b) The great size of the country makes difficult the communing of the artist and the study of existing monuments, so that each effort is individual and not a part of a concerted movement.

(c) There are but few symbols that may be used to characterize the synagogue, which will give instant recognition to a Jewish house of worship.

(d) The abandonment of the ritual reduces the interior of the synagogue to a simple lecture hall, scarcely distinguishable from secular buildings serving the same purpose. For

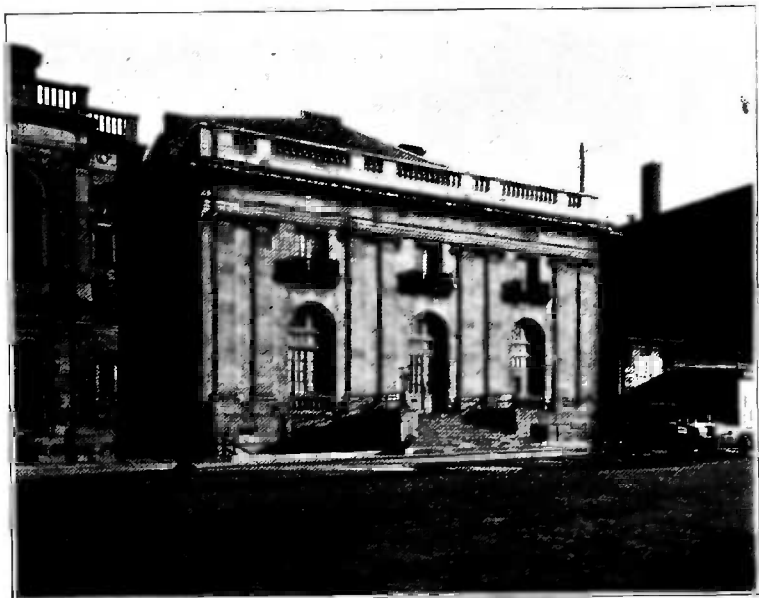


56. EXTERIOR OF SYNAGOGUE AND COMMUNITY HOUSE,
UNITY TEMPLE, BROOKLYN, N. Y.

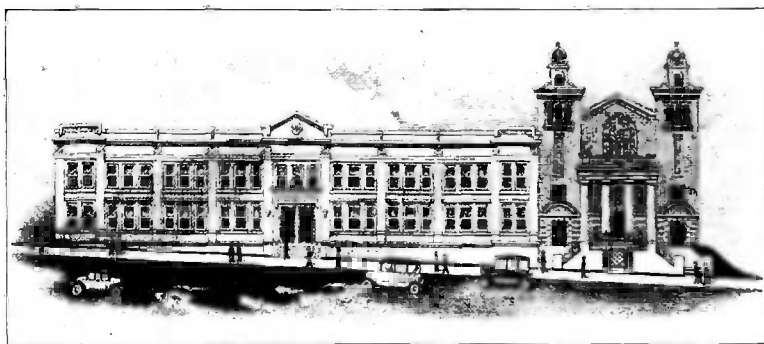


57. INTERIOR VIEW OF SAME

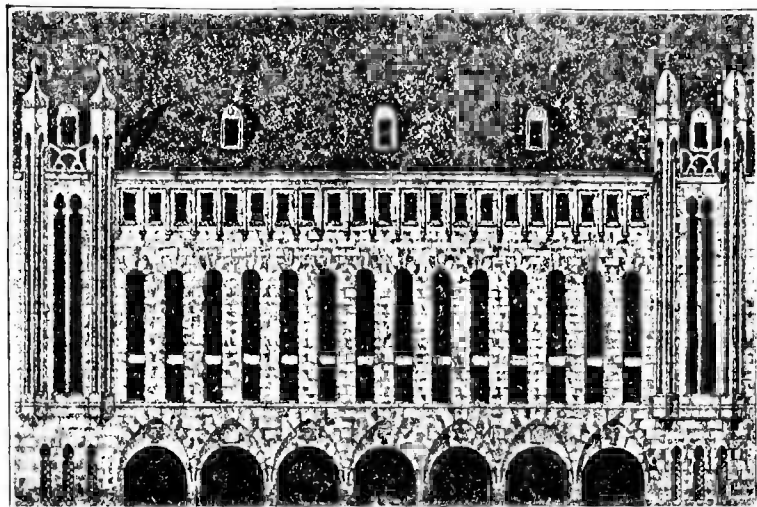
Arnold Brunner Associates, Architects



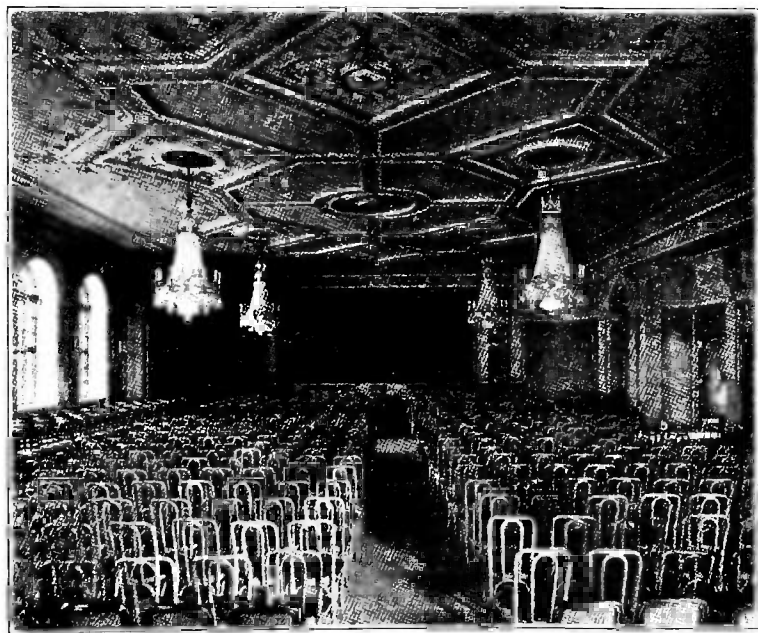
Tachan & Vought, Architects
60. KENESSETH ISRAEL SYNAGOGUE, PHILADELPHIA, PA.



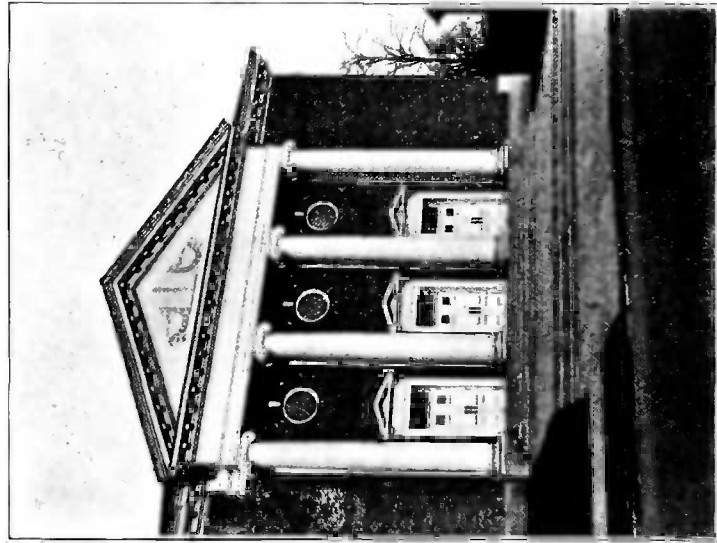
61. CONGREGATION TEMPLE DE HIRSCH, SEATTLE, WASH.



62. SYNAGOGUE AND COMMUNITY CENTER, ZURICH, SWITZERLAND



63. AUDITORIUM OF BROOKLYN JEWISH CENTER, BROOKLYN, N.Y.

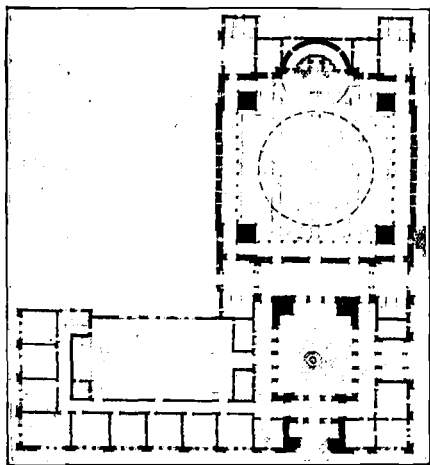


64. B'NAI ISRAEL SYNAGOGUE, ELIZABETH, N.J.
Ta-hau & Vought, Architects



65. TEMPLE ISRAEL, NEW YORK CITY

its proper functioning, the sight lines must be conserved, excellent acoustic properties must be attained, and there must be sufficient light in all parts of the room to permit of reading.



Bakewell & Brown, Architects

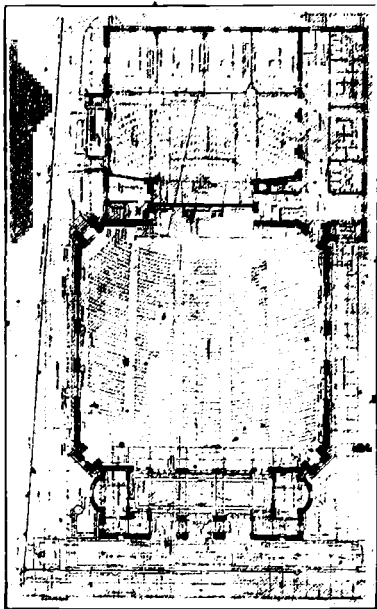
66. PLAN OF NEW TEMPLE EMANUEL, SAN FRANCISCO, CAL.

These practical requirements often conflict with those elements that have always produced deep religious emotions and have made the Gothic cathedrals so awe-inspiring. The repetition of piers and arches produces noble perspectives suggesting the infinite; vaulting, soaring heavenward, exalts the spirit, and the dim religious light that stirs the imagination and creates mystery, must all be abandoned to meet modern synagogal requirements.

Many exotic styles of architecture have been employed in the attempt to achieve a distinctive type,—among them

the Moorish, the Assyrian and the Egyptian, but these fortunately have generally been abandoned when they were

found to be inelastic and unsuited to dissimilar climatic conditions and to different building materials.



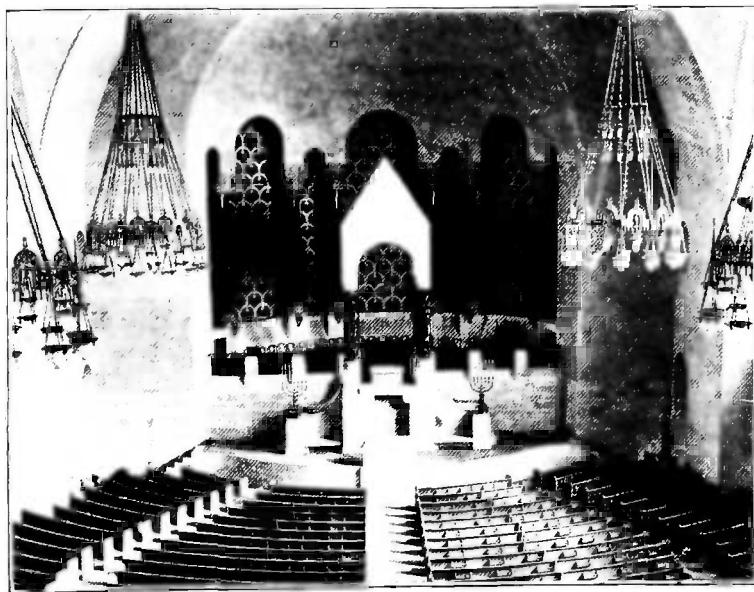
69. PLAN OF TEMPLE RODEPH
SHOLOM, PITTSBURGH, PA.

In going over the field of recent endeavor, it would seem that the styles selected by architects have narrowed down to only two—a free interpretation of the classic, or some form of the Byzantine. Each type has produced interesting and successful examples. There are many arguments in favor of each, but only time can tell which one will survive, or if indeed either will be final.

This question of style relating to American synagogue construction is inseparable from the general question of a distinctive American style of architecture, and has been the topic for great discussion during the past years, and it is indeed today, still far from final solution.

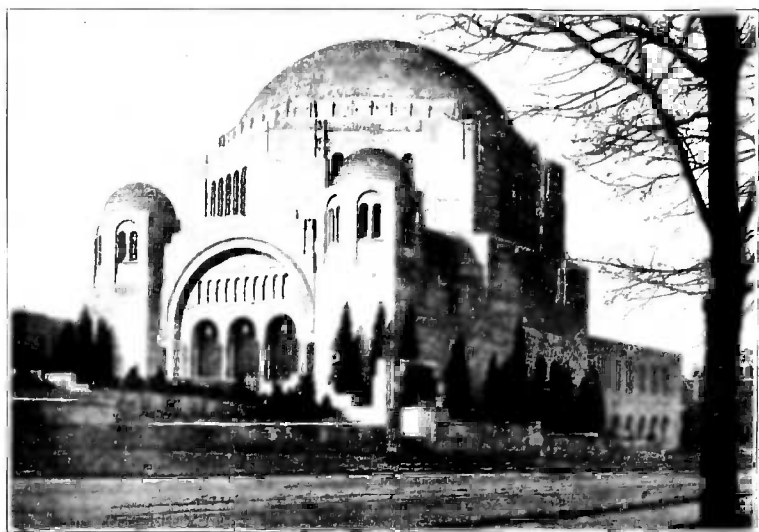


67. EXTERIOR OF NEW TEMPLE EMANUEL, SAN FRANCISCO, CAL.

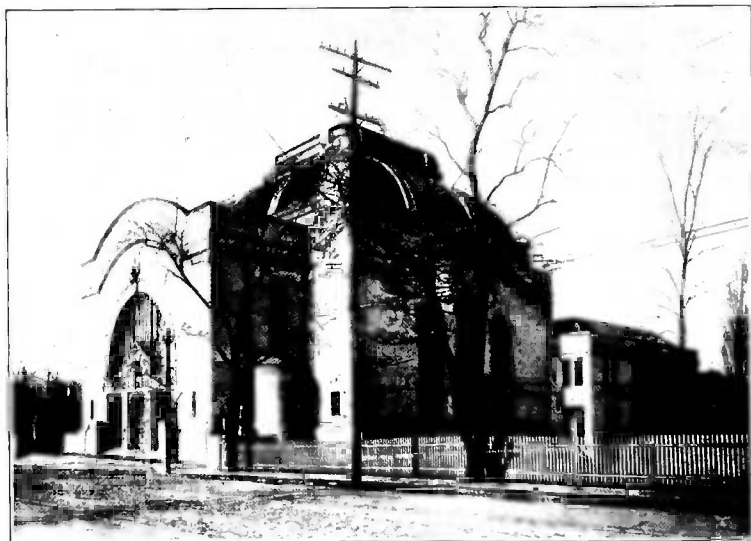


Bakwell & Brown, Architects

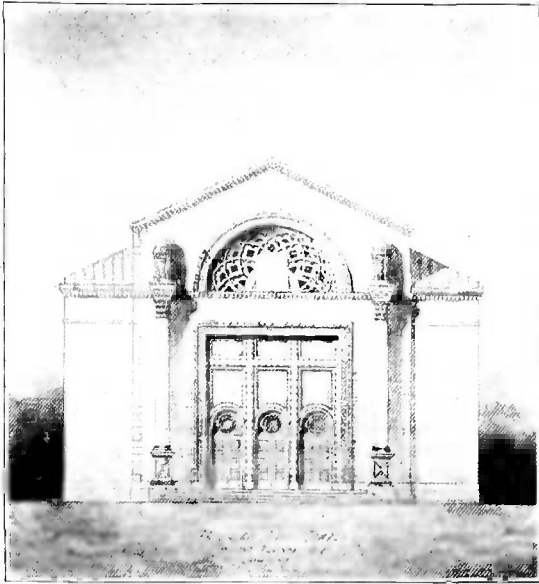
68. INTERIOR VIEW OF SAME



Charles R. Greco, Architect
70. TEMPLE TIFERETH ISRAEL, CLEVELAND, O.

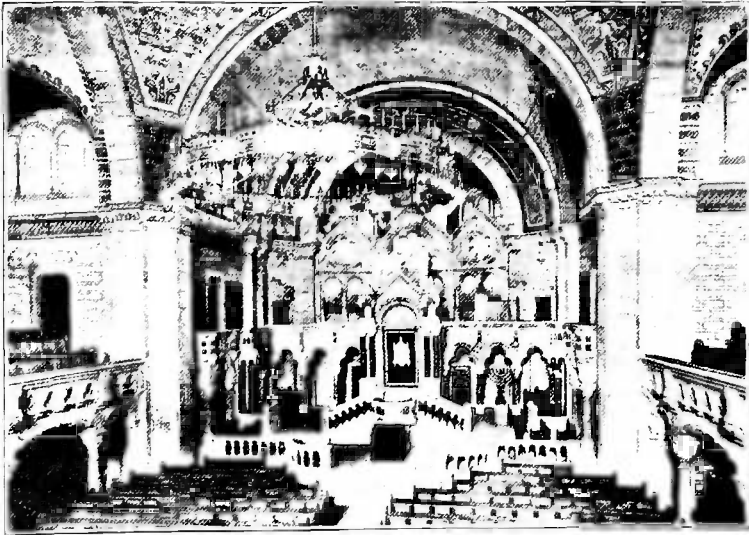


Palmer & Hornbostel, Architects
71. TEMPLE RODEPH SHOLOM, PITTSBURGH, PA.

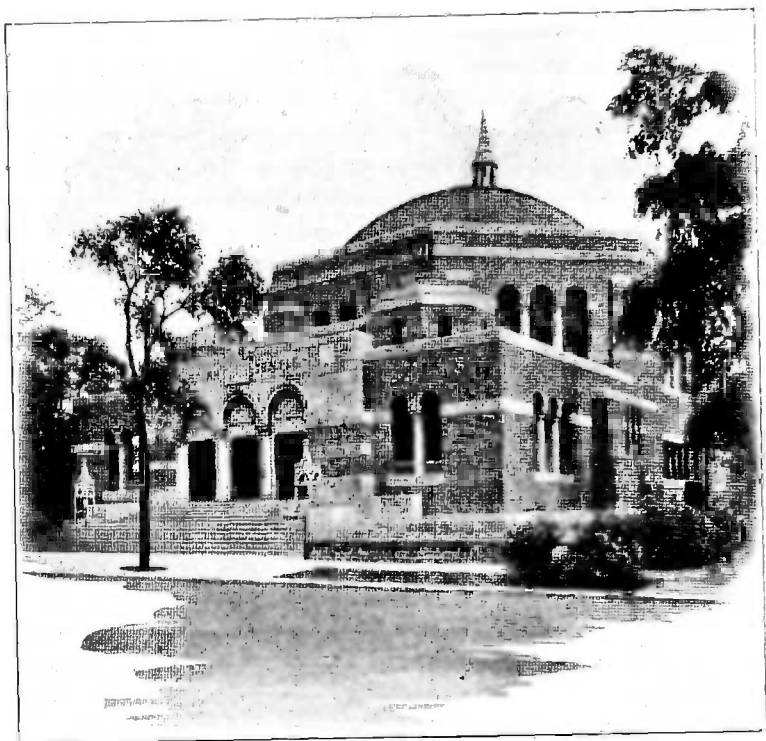


Tachau & Voughl, Architects

72. SINAI TEMPLE, MT. VERNON, N. Y.



73. INTERIOR VIEW OF SYNAGOGUE AT STRASSBURG, FRANCE



74. ISAIAH TEMPLE, CHICAGO, ILL.