



**PLATE I.** Night photograph of a fallen Maya priest. Stela 35 as it lies at Piedras Negras.

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## EVOLUTION OF A MAYA TEMPLE—Part I

MOST of the 1939 effort at Piedras Negras went into discovering the forms of three temples, one over the other on the same spot. Photographs and the three isometric drawings of Figures A, B and C summarize results pictorially except for important late changes in the upper structure. Those, with minor excavations elsewhere at this Maya Old Empire ruined city, have not yet been worked up sufficiently even for a preliminary notice such as this.

This large mound was selected for intensive work because limited excavations by Dr. Mason in 1932 showed that it had a long history, with at least three superpositions. During this time a significant change had taken place, since the lowest buried temple chamber was enormous, compared with all those on the surface, and in the Maya area generally so far as known. Little had been learned of the architectural style of the latest period, and nothing of the earlier ones. The specific problem was to work out the suspected changes in style, changes in structural methods, if any, and to try to associate them with changing styles on pottery fragments and with certain monuments lying loose on the surface debris. This latter item is very important, because the monuments bear definite dates in the Maya chronology. As soon as a portion of each period had been dug, sufficient for reasonably certain reconstruction of the whole, work on that period was stopped. Nevertheless a great deal of material had to be dug and dumped to one side, and we barely attained these objectives before the rains came and deep digging became impossible.

## THE EARLIEST TEMPLE

FIGURE C is a reconstruction of the earliest of the three temples. It partly overlies and buries the remains of a still earlier terrace or platform. The two-terraced pyramid proper rests on a broad basal terrace, and shares with the partly demolished earlier platform a combination of stylistic details typical of the buildings in the central Peten region to the east, the heart of the Maya Old Empire. These are the two sets of projecting masses or "outsets," and the heavy apron-like moldings at the corners of the terraces. Our earliest more or less complete structure was therefore built during the period of Peten architectural influence, but after its beginning.

Old Empire Maya temple buildings were generally placed on relatively low solid bases, or "building platforms," which have not received very much individual attention. In late times at least, the building and its platform were usually placed on a much higher solid base, which we call a pyramid, with two or more terraces and a stairway of its own. At the head of this stairway is a broad open space or stage left clear by setting the building units somewhat to the rear. Often, but not always, the pyramid rests on a basal terrace the bottom of which may follow irregularities in the ground level, if there are any, and which forms a stage at the bottom, in addition to that at the top of the pyramid stairway. These fundamental elements and relationships, as well as the Peten style typical of later times, already appear in the fairly early structure of Figure C. But there are marked differences.

Nearly all surface temple buildings and their platforms at Piedras Negras show a complicated Peten design related to that of the pyramids. Figure A shows such a platform, found above this one. Another, of similar type, with its temple, was illustrated in Volume 6, Number 5 of the Bulletin, Plate V, Phase D. In the present case, on the early third level not only was the building and platform very much larger than any other one-room temple so far known for the Old Empire area, but these units were severely plain in their simple rectangular design. Yet test



**PLATE II.** *Above:* The ruin of the left half of the earliest temple building and platform. The right part is still buried under later construction. The pyramid altar shows in the gap in the shoring.

*Left:* Mr. Godfrey removing a covered cache-bowl from below the altar.



*Right:* The cache in its bowl, exactly as deposited by the Maya. Eccentric flint objects, sting ray spines and bird bones are visible, and lie over crude representations of Maya Gods, scratched on shell and jade.



trenches into the hearting show that they were built at the same time as the more ornate Peten-style pyramid and basal terrace.

Another difference is in the great length of the pyramid which in later times would generally have been more nearly square in plan, without the wide spaces at the sides. These survived in the latest period here, but probably only because it would have been difficult to get rid of them.

Just how significant may be the combination of simple rectangular temple units with the more ornate pyramid style cannot now be stated. Piedras Negras seems to be on the western edge of the area of Peten-style temple buildings, while all around that area simple rectangular exteriors are the rule. One is tempted to see a mixture of Maya and non-Maya styles. This would be a hazardous guess at present, particularly as a similar combination has been discovered by the Carnegie Institution of Washington in the Peten center itself.

The difference in treatment at least gives an impression that the temple and its platform were thought of as one unit, the pyramid as another. Other facts give the same impression. Temple buildings and platforms were used at Piedras Negras and elsewhere without the pyramid, and pyramids without buildings seem to have occurred. When combined, as here, the pyramid stairway does not lead directly to the temple, but to an open stage before it. All this raises the possibility that temple buildings and relatively low foundations for them on one hand, and terraced pyramids on the other, may have originated and at first developed apart from each other. This is nothing but a hastily formulated working hypothesis, here set down to illustrate the manner in which the results of the season may help to solve fundamental problems.

## EVIDENCE OF WORSHIP

THAT these units served separable, though closely related, functions is indicated by a brand-new discovery—a smoke-blackened column

altar on the pyramid stage, in addition to another in the temple chamber. This proves that ceremonies were performed on this stage, presumably in full view of the populace below, as in Mexico of the time of the Spanish Conquest. When the priests used the similar altar in the chamber, which was also smoke-blackened, they could be seen from the plaza through the very wide doorways, but only by retreating a considerably greater distance from the base. Even if the doorways were not curtained the indoor ceremonies were relatively secluded. However, in this very large room, a considerable number of privileged persons could have been present. In the small temple of the final period only a few could be present at the indoor ceremonies, and the greater height and much narrower doorways secluded them effectively from the general view. The shift from large to small temple chamber, unexpected when first discovered, may have its explanation in a growing priestly exclusiveness.

A prime question is whether the Old Empire Maya, like the New Empire Maya under Mexican influence, performed human sacrifice. The scene on a Piedras Negras stela, still at the ruins, suggests that they did. A man lies on his back, apparently on a low altar. In some sacrifices the Aztecs of Mexico stretched out their victims in this manner on the pyramid stage. The next scene would show the body, its heart torn out, rolling down the pyramid stairs, while the chief priest turned to the temple building. Such scenes may have occurred here, but the altar on the stage argues against it. It differs in form from that on the stela. It has the same form as that in the chamber and like it is covered with soot. Similar usage is thus indicated, but in several later temples, including the latest on this spot, the indoor altar is set in a niche too small to have permitted such an operation. The smoke probably came from copal incense, burned in small pottery braziers around the altars.

The temple building of this early period was roofed either with a nearly flat sheet of concrete, resting on wooden beams, or with a peaked wooden frame covered with thatch. All evidence of the roof had been removed or disappeared with time, but we know that the Maya never



**PLATE III.** *Above:* General view after the first stage of the excavations, showing parts of all periods. This should be compared with Fig. B. To the left, part of the latest basal terrace and pyramid stairway remain. They lie over and against the middle period stairway, to the left of the middle period terracing, which runs behind a late stucco mask.



*Left:* The same, seen from the front, through the trees.



**PLATE IV.** *Above:* Final stage of the excavations. The middle period stairway is partly cut away to show the earliest pyramid below it. The right half of the upper terraces of Fig. B have been removed to show the earliest building and its platform. Compare with Fig. C.

*Right:* The same, from the front, looking down the West Group Ball Court. Notice that the stairways are placed off-center, to the left, for some unknown reason.





learned to span so wide a space with their masonry vault. In our drawing the walls are shown as if cut off horizontally, 2.80 metres above the floor. They rose at least 75 centimetres higher. All solid lines represent portions seen on one side or the other of the respective axes, though not in all cases on both. Broken lines indicate portions restored on the basis of those known and a general assumption of symmetry modified by certain known lacks of symmetry best discussed later. Most of the dotted lines on the sides of the pyramid are due to destruction by the forest, rather than because of insufficient digging. The sides of the basal terrace and pyramid stairways had been removed by the Maya. We are not on dangerous ground in restoring them at least as wide as the platform flight above. Possibly they were wider.

## THE SECOND STAGE

THIS structure was probably used for a long time. At any rate there was convincing evidence that the pyramid terracing at the rear gave way. Here at the rear new terracing was constructed just outside the ruins of the old, and almost certainly joined to sound portions at the sides and front. The old temple and platform, which had settled badly at the rear, were also left just as they were. Instead of repairing them they were buried by two new terraces which doubled the height of the pyramid, as shown in Figure B. Evidently by this time the desire for greater height was felt. The old temple could have been repaired, or a new one built to replace it on the same level.

Because of the added height, a new pyramid stairway had to be built over the old one. It descended to the extra deep top step of the old basal terrace stairway, thus forming a single flight reaching from the pyramid top to the plaza. It was made a good deal narrower. Both of these changes tended to accent the actual increase in the elevation of the pyramid stage, though, considered as a whole, the pyramid still seems very long and squat when seen from the front. The basal terrace

seems less important, having disappeared at the center. By placing the drawing of this period over that of the earlier, what has been added or removed can be seen at a glance.

In spite of this increase in pyramid height, the platform behind its stage is lower than before. As a result the temple which we suppose it supported is less exposed to close scrutiny from below. The surface of this platform was in very bad condition. The stones of a masonry temple building may have been removed for re-use during the next period, without leaving a trace. An open platform is, of course, a possibility. So little of the platform itself has been seen in position that our reconstruction of it must be taken merely as the simplest possible. The two blackened altars appear in the same relative positions. They are somewhat smaller than before.

## THE FINAL STAGE

THE third and final period saw three phases of change. The first only of these is shown in Figure A. No new pyramid terraces are added, but at front and rear the projecting portions are buried more than 2.50 metres behind new faces. The rounded corner portions, and the side terracing remain as before. The new very deep outsetting of course moved the front edge of the pyramid stage the same distance forward, but at the same level. Again a new stairway had to be provided. This was done with a minimum of labor, the old stairway side walls being still used, but raised to hold the fill for the new steps. However, a great deal of labor was expended in order to revert to the original practice of beginning this flight at the basal terrace level. To permit this, the old basal terrace, except at the extreme sides, was extended five metres to the front and provided again with its own stairway. Once dispensed with, this restoration of a moderately elevated space, interrupting the ascent to the pyramid top, suggests that it was of some functional importance. It was probably a subsidiary stage for ceremonies, because in

another case in the South Group this space was furnished with a column altar, besides those in the temple and on the pyramid stage.

If we turn back to the earliest period of Figure C we can analyse the building platform into two elements, a broad terrace nearly as high as those of the pyramid, and a very low step-like foundation or plinth closely following the building walls. In the middle period there was only one element of intermediate height, apart from a broad step, probably at the front only. In this late period of Figure A the two elements reappear. There is again a terrace slightly lower than those of the pyramid, but this time it agrees with them in its Peten style. The plinth element has become so high as to necessitate two steps of its own, and is really an independent platform. Its complicated design is in the Peten tradition and is typical of other surface examples which, in a general way, follow the complex outlines of the buildings on them. We cannot reconstruct the building here because all but a small remnant was removed by the Maya to make way for a still later one on the same level.

The building platform stairway was completely ruined, but a niche in the platform indicates the bifurcated design shown on the drawing. The indicated pyramid altar and its position are not certain. None was found here but we assume that in this case it was moved for use in a new position during the next phase. Dr. Mason found remains of a ceremonial deposit or cache about where we have replaced the altar in our drawing. Similar caches were buried below the five altars found in position in this mound, the four of the previous periods and one in the next phase of this one. With the approximate position of the altar thus confirmed we have a probable explanation of the niche in the building platform terrace and the consequent bifurcation of the stairway. The depth of the pyramid stage was reduced in the middle period, and still more in this one, as the front of the platform and its steps crept nearer the edge of the pyramid. Probably these now had to be carved out at the center to preserve a necessary minimum space behind the altar. We suppose there was a second altar in the now vanished temple, and that

it also was moved for use in the new one. We have not restored it because we have no positive evidence of its position. By analogy with other temples it might by the time of this phase be either in the middle of the temple floor, or in a niche in the rear wall.

With this period all parts of the structure as a whole are treated in the classical Peten style, a style which might be defined as particular decorative manipulations of large surfaces which, for mere structural purposes would have been in the same planes. In proportions, the pyramid has more nearly approached the expected, but, judged by others probably of its period, it is entirely too long for its depth, and for the length of the temple units. The latter have shrunk to normal late dimensions, and the non-typical broad areas at the sides of the building platform remain. These were desired in the earliest period, and could have been eliminated at the higher level by slicing off and re-facing the ends. Nevertheless one feels that they are an undesirable heritage from the past when, with a very long temple, they had meaning. By adding the very deep outsets at front and rear of the pyramid, as seen from the ground the lateral extensions of the old part were literally thrown into the back-



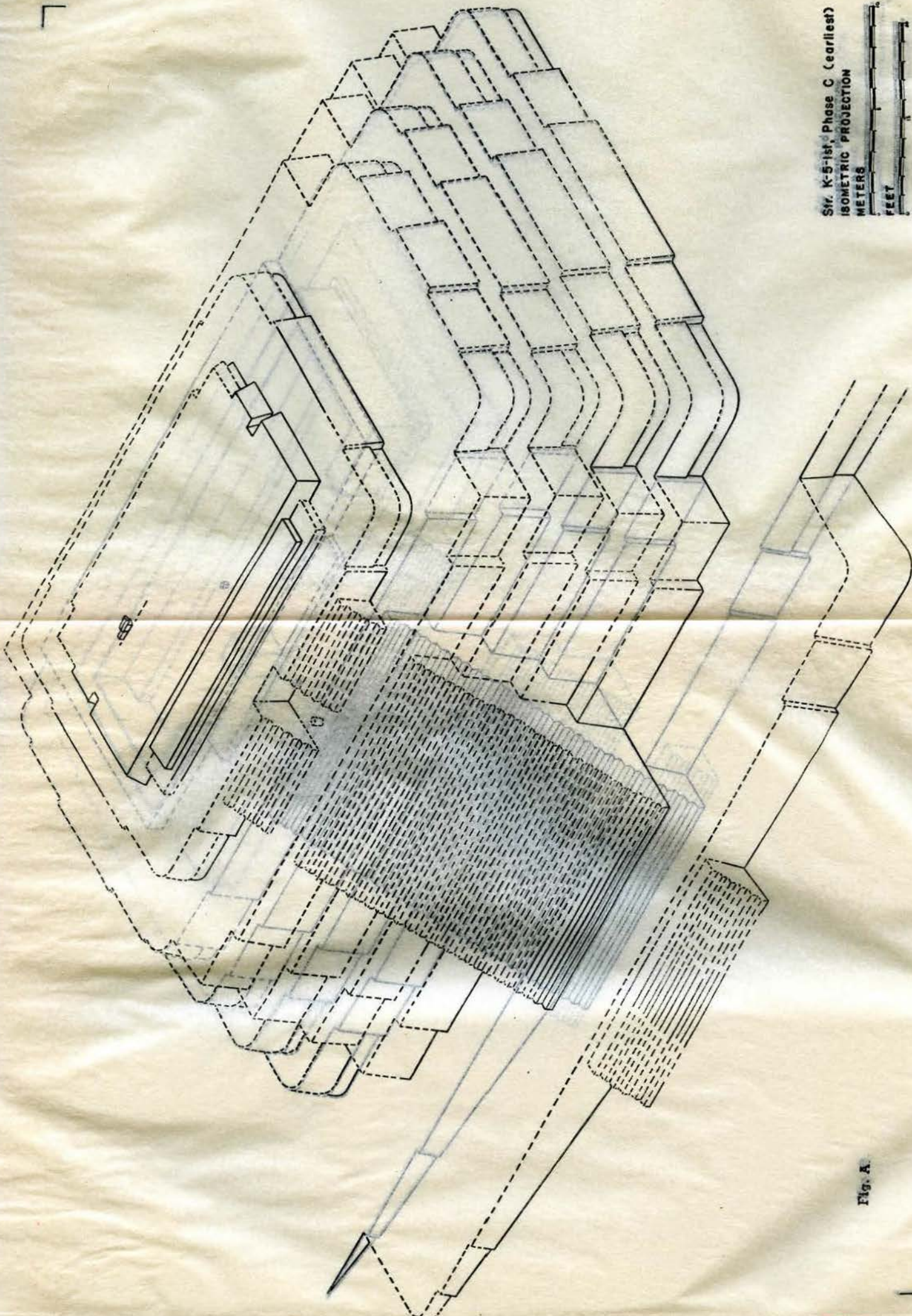
ground. Visually the temple units could be imagined as set on a pyramidal base shorter than it actually was. In any case, between the earliest and last periods there has been a shift in general proportions which now emphasizes height instead of length.

Up to this point there has been no surviving hint of sculptural embellishment. In the next phase carved and dated stone monuments and rich stucco decorations appeared, together with a new temple building. We are now reconstructing this phase as best we can from the vestiges of it which survived, and shall present the result in a later issue of the Bulletin.

L. S. Jr.

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The staff consisted of Mr. and Mrs. Linton Satterthwaite, Jr., Mr. William S. Godfrey, Jr., and Don Victor M. Pinelo, Inspector for Guatemala. Mr. Godfrey is responsible for the reconstruction drawings and the survey on which they are based.



Str. K-5-1st, Phase C (earliest)  
ISOMETRIC PROJECTION



Fig. A

Str. K-5-2nd  
ISOMETRIC PROJECTION  
METERS  
FEET

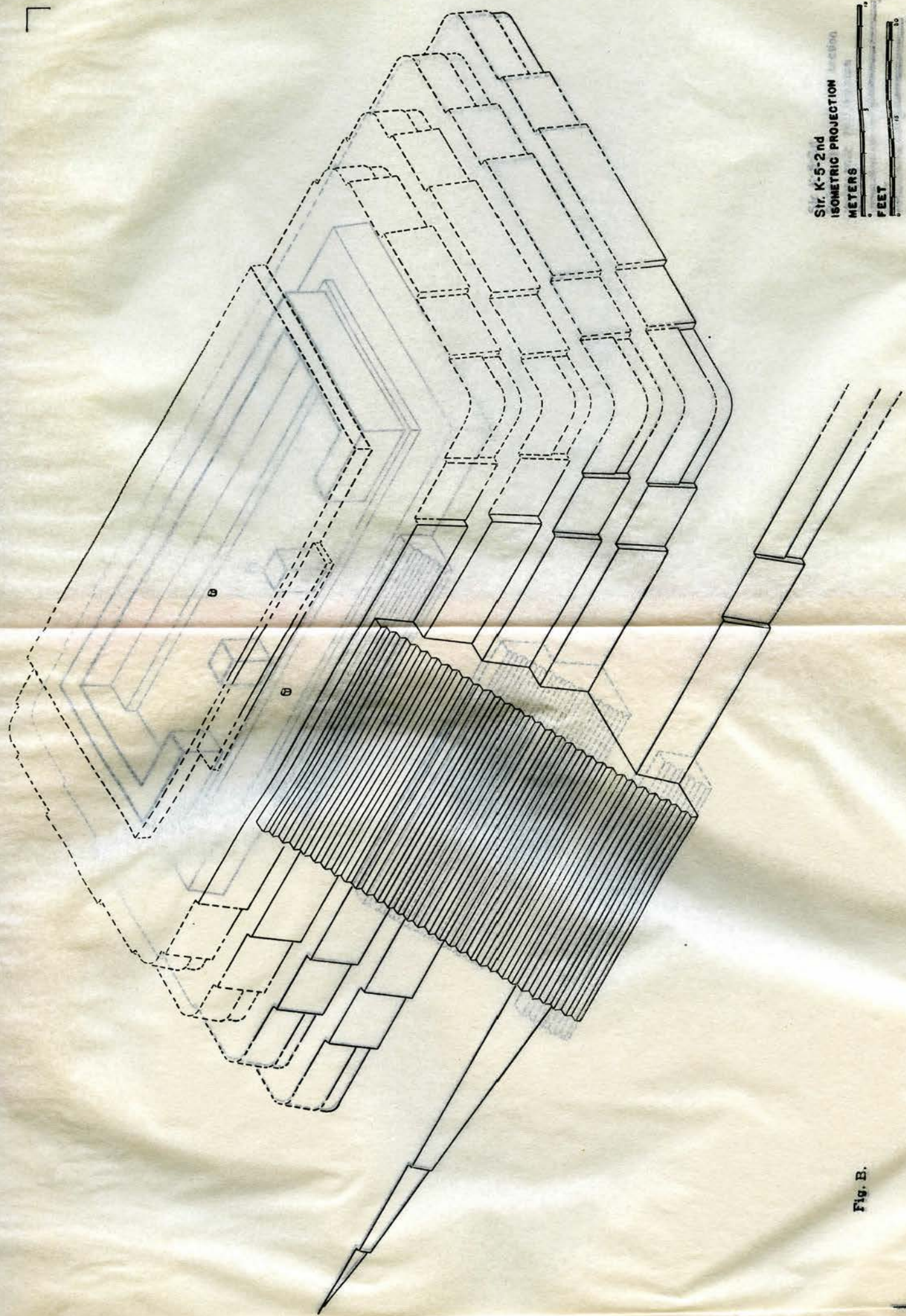
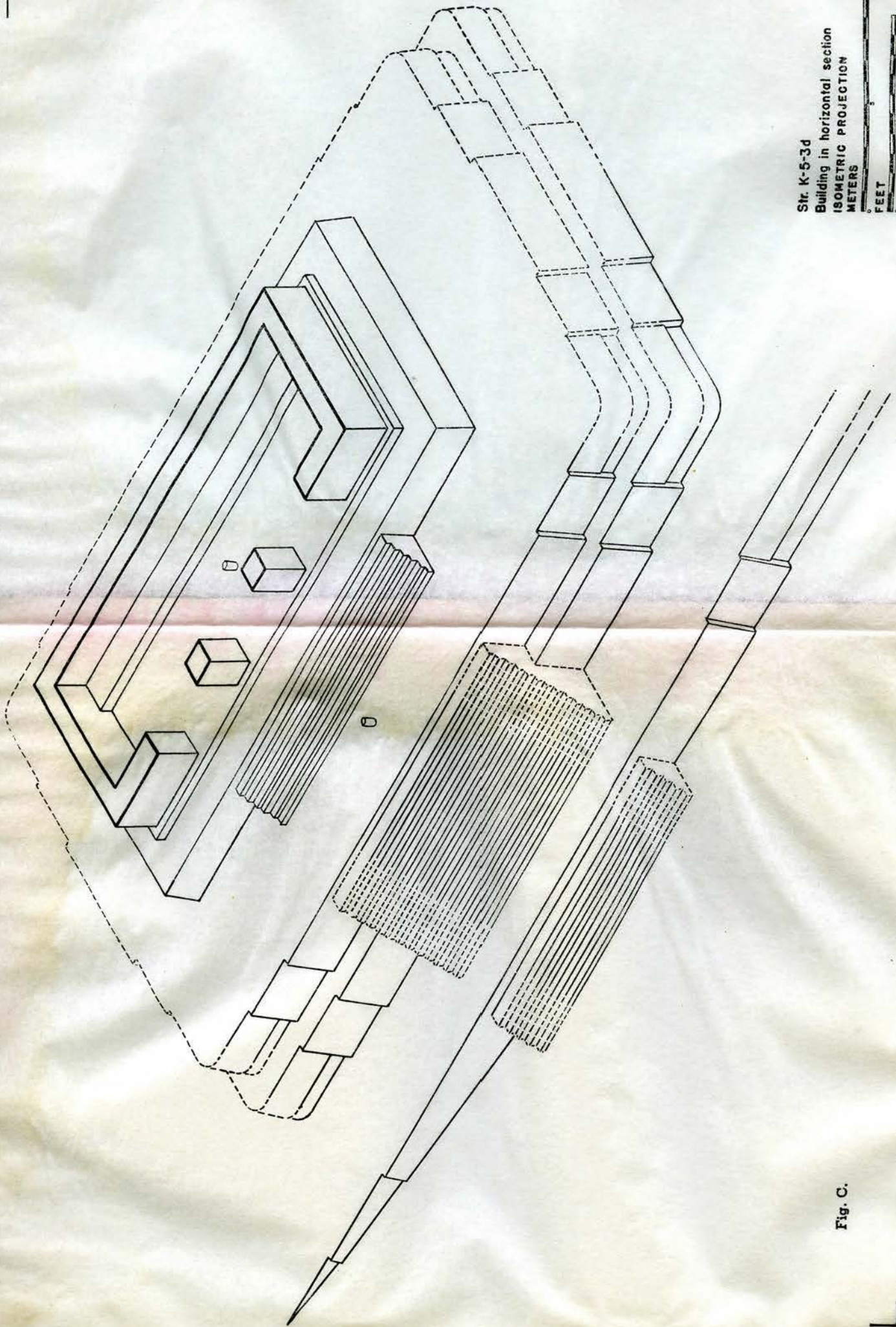


Fig. B.



Str. K-5-3d  
Building in horizontal section  
ISOMETRIC PROJECTION  
METERS  
FEET

Fig. C.

