

Structure R-9

*Bedou
used for masonry
mixed
(dms)*

Location: Faces northwest on South Group Court, with Str. R-10 on its left.

Drawings: Reconstructions, Figs.,
Plans and sections: Figs.
Photographs: Plates

Sequences: Basal terrace series: eight probable, four certain phases and episodes, lettered A to H on drawings.
Pyramid series, three probable phases, lettered X to Z, all probably later than A, otherwise not correlated.

Associated Monuments: Stela 25 (9.8.15.0.0.); Stela 24 (9.9.5.0.0.???) Stela 26 (9.9.15.0.0.); plain stela used as building material in basal terrace, episode F'.

Notes on Reconstruction

The entire structure above basal terrace level was in very fragmentary condition, with the common differential collapse of building and plinth were excavated wherever there was reasonable hope of finding anything in position. With the exceptions noted or indicated in the drawings for other components, bilateral symmetry was assumed, investigation being confined to the left half of the structure. In final form it is a complex of various partly or entirely buried constructions. It seems simplest to place remarks on the final period first, (Fig.) then the earlier constructions (Figs.) in order of erection.

Building and Plinth (x and X', Fig.). The building roof was non-vaulted, debris lacking slabs, capstones and depth, (Fig.), There is no evidence as to which non-vaulted roof type was used unless the restoration of walls to roof height is questioned, in which case a beam and concrete roof would be very improbable. The maximum surviving height of walls and piers was 70 cms., of which about 10 cms. had apparently settled into the floor material. Taking into account the rearward collapse and marked settling of substructure components, (Fig.) the amount of debris remaining on the floor seems to the writer to justify restoration of the walls to roof height. There was, of course, no data to yield the latter figure. The fronts of the piers were largely destroyed, probably in part by faulty digging, but

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subsequent careful excavation showed their base courses in place to the facade line indicated, except for one missing corner stone in each case; and there definitely were no front pier faces behind this line. The base course of the right wall, inner side, remains in place to this line. There is therefore no reasonable doubt that the piers were deeper than wide, as restored. The rear wall had completely collapsed as had that of the plinth and supplementary terrace, leaving no basis on which to estimate its thickness. The room width is based on the surviving length of the inner right wall at the ends of which only the base course remained. Twenty cms. is added for the depth of the postulated rear sill. This is confirmed by the position of badly settled building blocks encountered behind each doorway. (Section, Fig.). The reconstructed plan results in room axes intersecting at the column altar position. The side outsets, toward the front, are postulated in conformity with the corresponding plinth outset on the left, which though in poor condition showed several of its rear corner stones in semi-position. Granted the side outset, rear outsets of building and plinth become highly probable. (Table) Their restoration on the drawing would require decision on the thickness of the rear building wall, for which there was no surviving evidence. This building was in a very advanced state of disintegration, as is usual with non-vaulted buildings.

Any reasonable restoration must show the plinth more or less closely following the building walls, but physical evidence did not survive. A section of the front, better preserved than elsewhere, sloped least, about $78\frac{1}{2}$ degrees. The plan of the sunken plinth panels was clear on both sides, and the section on the left side. The back was either vertical or slightly sloping. The single plinth step is entirely hypothetical.

Supplementary platform (x). The position of a fallen probably corner stone suggested that the left side of this platform did not extend more than 50 cms. or so to the rear of the point where it breaks off in Fig. . If this is correct and if there was no rear outset, the rear wall of the building was no thicker than the piers. However, such a rear outset is not an impossible feature (compare Str. J-3, Fig.).

Apart from this possibility, the basis for considering this platform a simple rectangle in plan, without aprons or outsets, is sufficiently indicated in the figure. The slope is assumed to equal that of the pyramid terrace, the walls being in poor condition.

Pyramid(V). The sides where examined and doubtless the rear of the two-terraced pyramid had completely lost their facings. The length is known within narrow limits, about half of the left front corner being in position at the base; both stairway side walls being located; the front wall surviving to a point 9.40 m. right of stairway; and debris extending another meter at this level. The depth (front to rear dimensions) is therefore an approximation based on the position of the rear slope. At basal terrace level, left side, this was about 19 meters to the rear of the excavated front terrace wall, and this is taken as the depth at center. An error of a meter or two is probable. The much greater depth of the mound as a whole (see map, Plate) is doubtless caused by the necessity

There is no question but that the length of the pyramid greatly exceeded the depth; and that bi-lateral placement of the stairway was intended. The terrace slope used, about 770 is that to the left of the stairway, where the wall stood to a height of meters, in good condition (see photograph Plate Fig.). The cross section (Fig.) indicates two terraces of equal height. Restorations of apron moldings and of double outsets at sides and rear are hypothetical, but conform with what is known of other pyramids with the known front outsets and round corners (See table). The maximum surviving inset corner height was 60 cms., permitting though of course not requiring restorations of apron moldings of standard proportions. The section (Fig.) seems to require a standard stairway, the lowest step of which survived to left of center, the note of its exact dimensions being unfortunately lost. The cross section at the center suggests a block two steps high behind the basal terrace altar (Fig.) but it is doubtful, to say the least, and omitted in Fig. Fig. The wide upper tread depends on the arbitrary selection of a 45 degree ascent angle. It is known to occur on K-5-3d and K-5-2nd. No evidence as to presence or absence of blocks higher up, or of balustrades, survived.

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Basal Terrace. As shown in Figure , in final form, this consists of two broad levels, the lower of which extends far to the left. An "L" shaped platform of intermediate height is incorporated to left of center and supports a stela platform and stela. Debris contours are the basis for most of the reconstruction behind the front faces of these elements. Their front faces fail to conform to the front of the pyramid by about degrees (see Plan), although the original front face, still partly exposed at the far right apparently did so correspond. Rectification has caused the right side of the upper stairway-like element (H) to protrude too much. To correct for this, move the right ends of its steps 85 cms. rearward, and make faces of all other components (except A) parallel to the upper steps. The stairway projects 1.90 from A at its base level.

The five risers of the high steps of the components labeled G., and H. were nowhere in very good condition. They seemed to have been vertical, but may have been sloping, and this applies to the stela base. (E' and G'). The front of its supporting L shaped platform is restored with a steep slope of about 79 degrees about the same as that of the pyramid terrace, in conformity with its right end, in good condition. Actually at the front it was about vertical, probably as the result of internal pressure. The slope of the buried lowest 50 cm. of the original platform (A) was about 68 degrees where it runs behind and was protected by the later stairway C of Fig. , and is used in the reconstructions. The upper part showed evidence of distortion, and was a little steeper. A basal terrace slope flatter than that of the pyramid terraces (believed to be later) seems probable, but the data is too scanty for certainty.

Excavation did not extend to determination whether the original terrace (A) was furnished with outsets, moldings or other decorative variations. Its restoration merely the simplest possible, entirely hypothetical. Almost certainly it predates the pyramid, and agreement in style cannot be assumed. If there was such agreement inset round corners with moldings would have remained visible in the final period except that at the front these would be largely obscured and the effect of the moldings entirely eliminated, as happened on Structure R-10.

Earlier Phases

Basal Terrace Series. The interior of this component was investigated only by trenches on the center line; at the right of the stela supporting platform (F' in Fig.); through H, Fig. near its right end; and by pits at several other points. Despite the fragmentary character of our information the intrinsic interest of early construction in the presence of two early dated stelae, seems to justify presentation of restorations of the phases involved (Figs.). However faulty, they serve to visualize the relations of known parts of early constructions, not readily noted in the sections alone. To facilitate comparisons, constructions believed to differ in date are lettered A to H, in the probably order of erection. These letters are also used to direct attention to particular parts of the drawings. Disconnected parts of supposedly single units are differentiated by priming or double priming the same letter. A few remarks on the reconstructions precede discussion of the evidence for their sequential nature. Fig. .

Fig. . The platform B might be contemporary with C of Fig. , forming a secondary landing stage for stairway A. In such case the rear of its upper component would have to be turned back to the stairway in some manner. As restored, it could have served as support for a stela. Its surface was not examined. A corresponding unit may exist on the other side. The standard stairway A was followed down to the middle of the third riser. The level of the top of B is higher than this corresponding approximately to that of the fourth tread of A. Remarks on the design of A, above, apply to it here.

Fig. . The strikingly changed design of the stairway is fairly certain in most details, so far as the left half is concerned. A symmetrical design on the right is called for by presence of the outside base of C" at the correct point, abutting the terrace A, which runs behind it, and showing the same molding as C, at the same height. However, a trench along the inside of C" at the level of C' failed to show either steps or the wall of A. On the outside the latter stood well above this level and ran behind the right end of H, Fig. 7, which probably

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was a surviving part of C". Partial removal of the wing C" but not of the steps was necessary to build H (Fig.). The wall should have been present here, whether there were ever steps in front of it or not. Removal of steps and wall, at this point, probably for stone to face the steps of H, is indicated.

Locations of a short section of the wall of A, to right of C", and points at center and left end of the lowest step of C indicate the steps and terrace are approximately parallel with the pyramid. However the face of the base of C' is about 30 cm. the upper component about 50 cm. to the rear of the corresponding elements of B, of which it is supposed to be an extension. The error was probably not serious esthetically and is eliminated in the reconstruction. The fronts of subsequent additions conform to this new line, indicating they were laid out by measurements or sighting from the landing stage B-C'. An elevation of what was uncovered at the left end is incorporated in the section of Fig. . The platform D is reconstructed as a stela base because the large butt end of a small plain stela (Plate) was found in later fill close by . Fig. . Had it stood far away labor would have been saved by breaking it into smaller pieces for transport. We did no investigating for a corresponding construction on the right. The side and rear stood two courses high, no part of the surface surviving. It may have been higher.

Fig. and Fig. The platform E and its secondary facing F are parts of the L-shaped platform of Fig. 6 (F-G'-G'''). Reasons for thinking it an earlier part are stated under Sequences. The right end is known to a point m. from the corner, the left was not looked for. This applies also to E'. The surface of the latter did not survive where examined. Its side stood to maximum height of 40 cms., but may have been somewhat higher (See Fig. Sec. 5). The four sides of the stelae cist were clear at the base and stood to maximum height of 40 cms. It had no surviving floor. Stela 25, and Maler's excavation for it, are directly in front. We should note that E', or its cist only, may belong to a phase later, but not earlier than E. The base itself, E', is earlier than H, the upper step of which ends against it.

Fig. 6 The face of the L-shaped platform at G' and G''' does not run down to Plaza level, but does so at F (compare Figs). If the stepped face of the terrace G is a unit, and if unknown early constructions do not lie under G' and G''' they are contemporary with G, as indicated by Fig. , and as restored. In such case they are later than F. The left end of the stela base (G'') is based on uncertain debris contours; it could hardly predate G', but may postdate it; the right end (E') may be contemporary with the left and so postdate E, a possibility already mentioned. Restoration of the cist in G'', behind the present position of stela 26, is entirely hypothetical. The terrace G is restored as contemporary with that of Str. R-10, but no evidence on their time relationships was secured. Known evidence would permit carrying the stepped face of G around G''', making it earlier, or ending it against a hypothetical end of R-10, making it later.

Fig. 7 Notes on the basal terrace of this final period have already been given. It differs from Fig. 6 only in the addition of the upper step-faced element H. Making H later than G is justified by very clear remains of the floor of G, under H, between C and E (Figs), though actual plaster did not survive. Evidence of this floor was not noted elsewhere.

SEQUENCES.

The cross sections in Figs. establish partial sequences which we have arranged in columns in Table . Horizontal rows indicate certain or probable sequences in time, the earliest at the top.

Proof that B follows A is lacking. They may be reversed or put in one phase, the first row, so far as stratigraphy is concerned.

A single sheet of thick plaster survived from bottom of top of C, at the section of Fig. indicating that the left "wing" of this stairway was used, if not built, as a single unit. The lower part, with the molding, ends against B, and the sloping upper part overrides it, definitely establishing the sequence BC as to the wing, as well as to the steps.

While finishing plaster was nowhere seen on the floor of C, in the section of Fig. the crushed stone layer was very clear and it ran under D, from below which bits of finishing plaster were removed with a trowel.

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Structurally F' followed F, and E' may have followed E. In either case we may be missing a distinct phase, but there is no evidence for it. E' preceded G, which ends against it.

Making H later than G is justified by a very clear crushed stone layer at the proper level between C and E (Figs). Finishing plaster did not survive and it must be admitted this layer of floor material was not noted on the other sections.

If we assume all lettered components are single units, stratigraphically E-E' pushed up (back in time) to follow immediately B. and F-F' can be. This would vacate rows 5 and 6, reducing the sequence to a minimum ~~xxxxx~~ of five phases, A & B; C-C' and E-E'; D and F-F'; G; H.

Comparison of Figs. shows this is unlikely, since E spoils the effect of C and to a less extent of D, and therefore probably follows them as supposed in the table. If D was the base for the plain stela, as suggested, F' must follow D, the stela forming part of its material.