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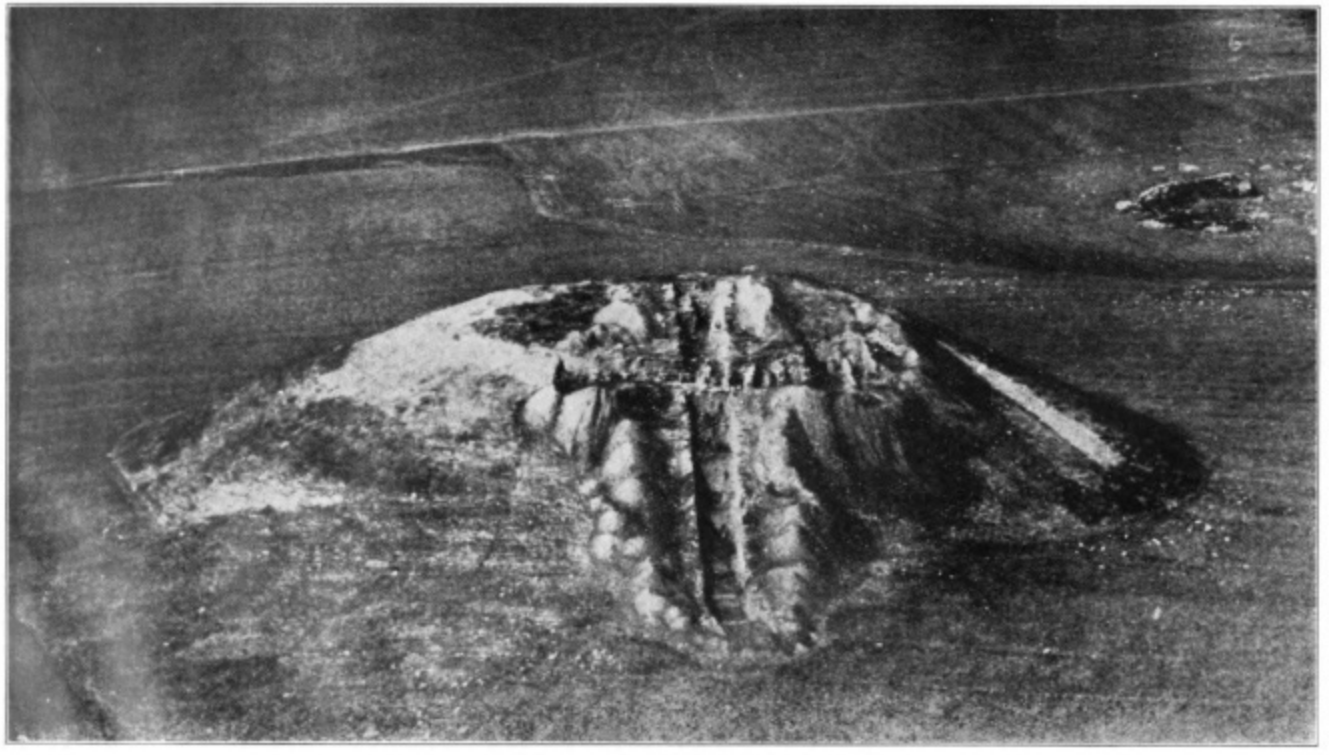

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VOLUME I

BY

E. A. SPEISER

EDITORS

W. F. ALBRIGHT · MILLAR BURROWS

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PUBLICATIONS OF THE AMERICAN SCHOOLS OF ORIENTAL RESEARCH

EXCAVATIONS AT TEPE GAWRA

VOLUME I

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By

EDWARD CHIERA

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JOINT EXPEDITION OF THE BAGHDAD SCHOOL, THE UNIVERSITY MUSEUM, AND DROPSIE COLLEGE TO MESOPOTAMIA

1931-1934

EXCAVATIONS AT TEPE GAWRA

VOLUME I

LEVELS I-VIII

BY

E. A. SPEISER

Professor of Semitics in the University of Pennsylvania and Director of the American School of Oriental Research in Baghdad

WITH A CHAPTER BY

DOROTHY CROSS

AND OCCASIONAL NOTES BY

PAUL BEIDLER AND CHARLES BACHE

Published for the

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To

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PREFACE

Like so many other prefaces, the present one, too, begins with an apology; not for the publication of the book, however, but for its delayed appearance. When the testimony of antiquity, which had required millennia to accumulate only to lie buried for thousands of years more, has been unearthed at length and its proper context irrevocably destroyed in the process, a record of the results becomes the sole means of accounting for such interference with the ways of time. Tepe Gawra has provided us with an invaluable cross-section through many stages of Mesopotamian prehistory and an admirable commentary on the early historical age. This account was announced nearly a year ago, but various routine duties prevented a speedier accomplishment of the task. The book will betray, no doubt, the effects of intermittent writing. The added time that it took to achieve, however, has been utilized in repeated checking and rechecking of the countless details which furnish the basis for the final conclusions.

The method of presentation has been explained in the introduction. I have sought to give due prominence to the actual facts of excavation by relegating all comparative material to a separate and distinctly secondary section of this work. A detailed table of contents and a reasonably full catalogue will facilitate, it is hoped, the use of the text and illustrations.

The staffs of the three campaigns with which the present record deals are listed in the introductory part. Of the direct contributions of individual members some mention has been made in the text and on the title page. I take the present opportunity to express to all my other colleagues my sincere appreciation of their unfailing loyalty and co-operation.

Grateful acknowledgment is hereby made of the generosity of Ismail Beg el-Jalili and Dr. S. Jalili in allowing the expedition free use of the ground of Tepe Gawra. To the successive Directors of Antiquities in Iraq who held office between the years 1927 and 1932 I express my appreciation of their warm interest in our labors and the courteous performance of their duties. Mr. Sidney Smith and Dr. Julius Jordan encouraged us, furthermore, to draw freely on their scientific experience. To Tahsin Beg, Mutasarrif of the Mosul Liwa, and Administra-

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tive Inspector Major W. C. Wilson I owe a debt of gratitude for giving the expedition their official and personal assistance. No. 30 Squadron of the British Royal Air Force was ever helpful in taking air photographs of the site; one of these has been reproduced here by permission of the Air Ministry.

Director Horace H. F. Jayne, of the University Museum, gave us every possible aid in the field and at home. Doctor George A. Barton, long-time Director of the American School of Oriental Research in Baghdad, has been an enthusiastic supporter of the work at Gawra from the very beginning. His warm personal interest has been to us always a source of encouragement, and the present results are in a large measure a tribute to his scientific foresight. President Cyrus Adler made possible the survey that resulted in the discovery of the mound. Debts of this kind are not easily repaid.

President Millar Burrows was good enough to read through the manuscript and make a number of valuable suggestions. Miss Dorothy Cross assumed the ungrateful task of checking all the catalogue entries and assisting in the revision of the proof. Dr. P. J. Storm kindly checked and improved the petrological identifications.

I also wish to express my grateful appreciation to the University of Pennsylvania Committee on Research for a grant of $350 for clerical and technical assistance in the preparation of the typescript and the plates.

E. A. S.

September 7, 1935.

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I. INTRODUCTORY

HAVING skirted the mountains of Kurdistan for hundreds of miles, the Tigris encounters at Eski Mosul a wall of hills that block its southward course and force it to turn sharply to the east (Cf. Pl. LXXXVI). Twenty miles farther down, the river passes between modern Mosul and the mounds of ancient Nineveh. Nimrud and the ruins of Calah lie on the left bank another twenty miles below, near the juncture of the Tigris and the Upper Zab. Between Eski Mosul and Nimrud the river valley is comparatively narrow. A line of low hills constituting the eastward expansion of the Sinjar range forms the obstruction to the right. The rise is hard by the river, but immediately beyond it begins the monotonous plain of Mesopotamia. The elevation to the left, in the northeasterly direction, is gradual and at first almost imperceptible. The nearest range is about twenty miles away; but these hills are not isolated as are those across the river. They are merely the foothills of a massive complex of mountains consisting of a series of parallel ranges, each loftier than the preceding one, all radiating, as it were, from the majestic summits of Ararat. In the latitude of Mosul the Tigris may therefore be viewed as the natural border between the Highland Zone and the Plain. This line of demarcation has a profound historical significance. In terms of cultural affiliations, the districts on the right bank have been exposed throughout the ages to Lowland influences; conversely, the area that slopes down to the left bank has forever borne the stamp of Highland orientation. Ancient Nineveh was originally a Highland center. Nebi Yunus,[1] its present-day representative, has a population that still proclaims its northern origin through Turkoman features and a Turkish dialect. Mosul, on the other hand, crowded against the right bank, remains overwhelmingly Arabic.

[1] Place and personal names are listed in a conventionalized form, without introducing special characters or diacritics. It may be of interest, however, to remark that Bashiqah, the name of the village in which our headquarters were situated, goes back to an older Aramaic form Bâ-Hĕšlqeh. The element *bâ-*, for older *bait-* is a common one in the neighborhood of Mosul.

The reader will note (without much annoyance, I trust), such minor inconsistencies in spelling as *metre* by the side of *center* and *beveled* alongside of *modeller*, *modelled*. In such instances it is sometimes difficult to gauge the preferences in current scientific usage. The use of the form *liwân*, with makron, is due to the comparative novelty of this word in an English context.

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The district to the north and northeast of Nineveh is marked by a number of ancient mounds. The tallest and most impressive of these landmarks was named by neighboring villagers *Tepe Gawra*, "The Great Mound;" the Arabs of Mosul know it by the less colorful designation of *Tell Ali Beg*, after a former owner of the site. The distance from Mosul to Gawra is about fifteen miles, the direction being north-northeast. A little over two miles to the west lie the ruins of Dur-Sharrukin and the huts of modern Khorsabad. The nearest village is Fadhiliyeh, situated about a mile and a quarter to the north of the mound, at the foot of Jebel Bashiqah, the western spur of the imposing Jebel Maqlub. Fadhiliyeh owes its existence, and much of its present attractiveness, to a brook which originates at the foot of the mountain that hems in the north part of the village. The same body of water was no doubt responsible for the first settlement at Gawra; the wadi passes by the northeast edge of the tell, but the water is now diverted to the orchards of the village and is eventually carried off by the Khosr.

Protected thus by a range of hills and favored by a stream, the original settlement of Gawra enjoyed an excellent location. Moreover, it lay close to an important pass, formed by the Khosr in its southerly course towards the Tigris, and it faced upon the fertile plain of Nineveh. Little wonder, therefore, that the site was never abandoned for any considerable period, so long as it offered sufficient room for a township or a religious center. Chenchi,[2] which lies two miles to the south, was not rebuilt after its desertion early in the third millennium, to judge from the evidence of surface finds. Magganubba, the predecessor of Dur Sharrukin, had not attracted much attention until Sargon found it expedient to transfer thither the capital of Assyria. But Gawra rose steadily, stratum after stratum, gradually assuming the shape of a truncated cone. With each new occupational layer, however, the habitable area at the top would shrink considerably. There was no room in the later stages of the mound for more than a small citadel or a shrine; the settlement proper must be built on the plain below, or else a new location must be found for it elsewhere. At length the place became too tall and narrow for practical use: the cone had rounded out at the top. When Gawra finally came to be abandoned it was solely because the site had accomplished the full span of a mound's existence. And yet, in spite of this long and continued history, the

[2] See now the *Third Preliminary Report* of the Iraq Expedition of the Oriental Institute (*Asm.* III), p. 89.

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uppermost stages date back to the middle of the second millennium. From the palaces of Dur Sharrukin Gawra could be seen only as a lofty landmark in the direction of the rising sun. Sargon may have been impressed by this already ancient tell and meditated on the fate of its last inhabitants. In his days the mound must have been close to twenty-five metres in height.[3]

The first one to take an active interest in the scientific opportunities of the site was Layard. His remarks on the subject deserve to be given in full: "Near Futhliyah, and about 2.2 miles from the palace of Khorsabad, is a lofty conical Tel visible from Mosul, and from most of the surrounding country. It is one of those isolated mounds so numerous in the plains of Assyria, which do not appear to form part of any group of ruins, and the nature of which I have been unable to determine. Its vicinity to Khorsabad led me to believe that it might have been connected with those remains, and might have been raised over a tomb. By my direction deep trenches were opened into its sides, but only fragments of pottery were discovered. The place is, however, worthy of a more complete examination than the time and means at my disposal would permit."[4] Eighty years ago the proper historical perspective was, of course, lacking. Assyrian sites had furnished the only examples of ancient town-planning along the Tigris, and Layard could not have thought in terms of Copper age centers, far back in pre-Assyrian times, which had grown up "isolated" and conical in shape. Nor was Layard's generation fully aware of the importance of ceramics. "Fragments of pottery" meant little at the time; but it was the evidence of precisely such fragments that was to lead ultimately to the excavation of Tepe Gawra.

It may be doubted whether the next visitor to investigate the archaeological prospects of Gawra was better equipped financially for such a task than Layard had been. The archaeological survey of Northern Iraq, in the course of which Gawra came to be examined, was made possible only through the cooperation of three institutions, namely, the American Schools of Oriental Research, the Dropsie College of Philadelphia, and the Guggenheim Memorial Foundation. The small appropriation for that survey had been nearly exhausted when I arrived at Gawra on April 25, 1927. For several days I had been studying

[3] Assuming that the remains of Str. *I* were more substantial at the time than when we found them.

[4] *Discoveries in the Ruins of Nineveh and Babylon* (London 1853), p. 132.

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the region between Jebel Bashiqah and the Tigris and had visited a number of mounds which showed surface remains of the so-called prehistoric period. My principal chronological guide consisted of fragments of the characteristic painted pottery of the Chalcolithic age. I had found the same ware on several previous trips in the area between Mosul and Kirkuk. These finds testified to the wide occupation of the entire region in Chalcolithic times, promising thus some correlation between the early northern sites and the contemporary remains of Elam and Sumer. Since our knowledge of early Assyria was then very incomplete all mounds containing the pottery in question were carefully noted. But most of those had proved low and irregular, and few appeared to contain remains of the ensuing Copper age; they had evidently been deserted during the years that marked the transition from prehistory to history. Gawra, however, was a striking exception in more respects than one. It rose to a height of twenty-two metres and had a diameter of approximately one hundred and twenty metres at the base. Yet the surface finds were not of such comparatively recent date as the height and regularity of the mound might have led one to assume at first; evidences of the Assyrian and Persian occupations, so plentiful on the other tall sites in Northern Iraq, were wholly absent in this case. Instead, the lower two-thirds of the slopes of Gawra were strewn with sherds and implements of the Chalcolithic age, while the topmost remains belonged for the most part to the Early Copper age. In other words, by far the greater portion of the mound had grown up during prehistoric times. The upper part represented the early historical period, the time of the early Sumerian dynasties or of the kings of Agade, with some later remains in the narrow area at the top.

These were the tentative conclusions reached in the course of the surface examination of Gawra. There was little doubt as to the unique value of the site for the study of the cultural history of the district and, in a wider sense, of Mesopotamia as a whole. Twenty-two metres of occupational remains were practically certain to yield about a score of archaeological strata. Excavations on the site would thus result inevitably in obtaining a cross-section through several millennia of the history of Northern Mesopotamia.[8] Moreover, the long period covered by the numerous layers of Gawra was but little known to archaeology; it presented huge gaps, and these our site seemed likely to fill. A mound that had originated far back in Chalcolithic times, if not in the Late

[8] We are using the term Mesopotamia in the sense of Transpotamia as well.

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Neolithic period, and had grown steadily through the ensuing eras until it witnessed the beginning of the second millennium, was obviously a source of invaluable information. The connected cultural history which it promised to furnish would guide us through many dark centuries. Best of all, here was an excellent opportunity to obtain for once a clear stratification of the civilizations which specialized in the painted pottery of the so-called Susa I type.[6] For it was evident from the surface finds that the lower stages of Gawra contained numerous strata with analogues of the Susa fabrics, which would enable the excavator to establish the vital sequences of shapes and of decorative elements. In short, it was clear that Gawra should be dug as soon as possible.

Physical conditions were ideal for excavations. The comparative narrowness of the mound would make it easy to dig layer by layer, instead of in sections, assuring thus clear stratigraphic sequences. The prehistoric remains would not have to be recovered from deep and cumbersome pits, as must be the case with extensive ruins such as those of Nineveh or Ur;[7] at Gawra they were easily accessible above ground. Lastly, there were several villages in the neighborhood capable of furnishing the maximum number of workmen required. Fadhiliyeh, with its ample water supply, was convenient for headquarters, and Mosul with its administrative facilities, its banks, and its postal and telegraphic services, was within easy reach.

All these calculations were made not without a sense of suppressed excitement. It was perhaps natural to be carried away, at the end of six months of rather strenuous surveying, by attractive prospects of actual excavations. But the means for carrying out such an undertaking were not in sight. One had to hope that a sponsor would be found before long who would be so impressed by the scientific promise of Gawra as to disregard its presumably poor yield of museum objects; it would be too much to expect display material from a mound of such great antiquity. The institutions that financed my survey could not, as I knew, commit themselves at the time to a more ambitious archaeological undertaking.

[6] The stimulating effect of Frankfort's *Studies in Early Pottery of the Near East* I (London 1924), which added greatly to my interest in this survey, is herewith gratefully acknowledged.

[7] The prehistoric *sondages* at Ur, Warka and Nineveh had not yet been started at the time.

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It remained to follow up the surface examination of the site with the usual inquiries in the nearest village. The ground, I was told, belonged to the venerable Ismail Beg el-Jalili, a member of one of the oldest families of Mosul. My informants went on to say that Gawra was a very poor place for *antiqas*. An Englishman had dug there many years ago, but without any success. I suspected that they had Layard in mind, but did not connect the reference with any of Layard's statements; the mound is not mentioned in his writings by name, and it was not therefore until several months later that I was able to identify the passage which I have cited above. At all events, I was not worried by the villagers' lack of faith in Gawra. Upon my return to Mosul I called on Ismail Beg and explained my interest in the site. With the generosity of a true nobleman he promptly placed the tell at my disposal. The Beg and his son, Dr. S. Jalili, have since proved very helpful to us on a number of occasions.

The report about Gawra which I sent to the officers of the American Schools and the President of the Dropsie College resulted in the appropriation of five hundred dollars for trial excavations. The amount was small, but it represented all that could be spared for the purpose. As it turned out, these financial resources were quite ample to bear out all the predictions about the value of the mound. They enabled us to undertake a small dig, lasting 15 working days (October 9-27, 1927) with an average force of sixty men. The staff included Mr. E. Wilenski, the architect of the Nuzi expedition, loaned to us for the brief period by Dr. Chiera, who also assigned to us his young son, William, as recorder. Our quarters were installed in an old storage room, holes in the walls serving as windows. The laborers were all new to archaeological work. But whatever the working conditions, the results of our preliminary dig proved highly gratifying. We ran a trench, five metres wide, from the base of the southeast slope to the top of the mound. On striking a massive stone wall that crossed our trench at right angles, about two-thirds of the way up the slope, we followed it and obtained thus another trench which combined with the first to form a huge cross.[8] Our finds proved beyond any doubt that Gawra contained the remains of three main civilizations. The earliest strata represented a series of occupations by the users of the prehistoric painted pottery; the middle layers were still too early for any extensive use of metals, hence evidently Chalcolithic; with the upper third of the site we as-

[8] See Frontispiece.

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cended to the Early Copper age. In addition to furnishing these valuable chronological indications — one cannot expect more reliable stratigraphic data from trial trenches — the various levels proved, quite unexpectedly, to be rich in objects of great importance. The whole dig was later reported in a monograph entitled *Preliminary Excavations at Tepe Gawra.*[*]

More than three years were to elapse before work on Gawra could be resumed. In the spring of 1930 the American Schools of Oriental Research, which had received in the meantime a generous grant from the Rockefeller Foundation, organized an expedition to Northern Mesopotamia in connection with the Museum of the University of Pennsylvania. The mound chosen for excavations was Tell Billa, near Bashiqah, which I had surveyed prior to my inspection of Tepe Gawra. While stationed in Bashiqah, I made several trips to Gawra in the company of Mr. Howard S. Levy, a Governor of the Dropsie College, who was a volunteer member of our Billa staff. Following his return to Philadelphia, Mr. Levy helped materially in procuring additional funds for the excavation of Gawra. The University Museum and the Dropsie College joined the American Schools in this new undertaking. The second campaign at Gawra started on January 19, 1931 and continued for six weeks. Mr. A. H. Detweiler acted as architect and surveyor, and Dr. A. Saarisalo, of the University of Helsinki, assisted the writer in directing the field work. During this brief season we had to confine our activities to the southwest side of the mound so as not to interfere with plow-work at the northern base. The original plan of excavating by entire layers had thus to be discarded for the time being. Instead, another trial trench was opened up on the south slope, while at the top only the northeast portions of the several layers could be removed. In this manner, Str. *VI* was reached towards the end of the season. During the campaign of 1931/32, which lasted from October 12 till March 15, we were no longer handicapped by any restrictions. The remainder of the mound was brought down to Str. *VI,* following which we proceeded to excavate Strata *VII* and *VIII* in accordance with the original plan. The field work was supervised this time by Mr. Charles Bache, Dr. Cyrus Gordon, and the writer. Mr. Paul Beidler did the architec-

[*] Cf. *AASOR.* IX, pp. 17-94. Attention should be called to the fact that the designations *Gawra I, II,* and *III* used in that report refer to cultural periods and not to levels, as several writers seem to have concluded. It was stated explicitly that each period comprised a series of individual strata. For subsequent literature on the subject cf. *BASOR.* 42 ff., and the *Smithsonian Report* for 1933, pp. 415-427.

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tural work, Miss Dorothy Cross was in charge of the cataloguing, Miss M. R. Warren attended to the preservation of the antiquities, Mr. Boris Mintzker took care of the drawings, and Mr. John Tobler was the photographer. The same staff worked also at Tell Billa.

The present book deals with the results of these three campaigns. Spread over five years, they represent no more than eight working months. Two additional campaigns have been completed in the meantime under the direction of Mr. Charles Bache. They will be described in a future volume.

In the preparation of this account the writer has enjoyed the collaboration of several members of the staff of the third campaign. Miss Cross has contributed the descriptive chapter on the pottery. While in charge of the registration of objects from Gawra and Billa, she paid particular attention to the development of ceramic shapes and to the interrelationship of the later wares of Gawra and those from the early strata of Billa. She has also furnished many of the pottery drawings and has checked all the others. The arrangement of the pottery plates is entirely her own and has my full approval.

Mr. Beidler is responsible for the final architectural plans of all three campaigns. He prepared those of the third season and correlated them with the drawings of the two previous architects. I have been able to incorporate in the general account of the buildings some of Mr. Beidler's field notes. They will be given in quotation marks with the initials P. B. identifying the contributor in each instance. To Mr. Bache I am indebted for certain architectural data which came to light while the fourth campaign was in progress. These additions will be similarly indicated in the text.[10]

A word of explanation is here in place as regards the designation of the squares on the map of the site. The original trial trench was divided into squares of five metres, which were marked A-B, and thus on, beginning at the base of the mound; larger squares would not have been practical for our purposes. Owing to the fact that our funds were limited, we could not wait till the mound was properly surveyed, but had to proceed without delay. In the course of that brief season Mr. Wilenski somehow found the necessary time to produce a contour map, which was subsequently published with the account of that dig. But the architect had been compelled to work with inadequate instruments,

[10] I also wish to acknowledge the assistance of Mr. Henry Davis, III, in the preparation of drawings and of Mr. Reuben Goldberg in taking additional photographs.

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and on that account his results could not be used as the basis of a final topographical map. Eventually the contours were checked and found correct; meanwhile, however, the first report had been published with the original trench designations. In the present work it was deemed best not to break away entirely from the previous publication. The new map is divided into squares of ten metres each, but the key letters have been left in the same positions as on the old map. In other words, the distance A-C, or the like, will be found to correspond in both cases. To obtain the larger areas of the present map every alternate letter, such as B, D, etc., has been omitted. The capital letters mark the sides of the squares from southeast to northwest; the other sides are now indicated by ordinary numerals. Thus the area A-A of the trial trench falls within the Square A 7 of the new map, C-C will be located in C 7, and so on. By this method a connection has been preserved with the older publication without, of course, any sacrifice of accuracy. The present map covers the mound down to its base. If the adjoining areas ever come to be excavated, the map can be easily extended by employing the unused numerals or by adding such symbols as AA, CC, as the occasion may require. In this manner our present designations have a direct relation to the history of excavations at Gawra.

Concerning the arrangement of this volume the following remarks may be in order. Following this introduction, which has dealt with the location and discovery of the site and the history of its excavation to date, the material will be presented in two main parts dealing respectively with the finds and their interpretation. This appears to me to be the best way of separating the account of facts and sequences from views on contacts and consequences, and of making thus a clear distinction between what is reasonably certain and what is often necessarily tentative. In this way it was possible to let the remains stand out by themselves without being obscured unduly by foreign parallels. Although the recapitulatory and comparative discussions necessitate some repetition, the groupings in the second part of the book usually involve a shift in emphasis.

To return to the first part, it consists of chapters on Architecture, Pottery, Terracottas, Stone Work, Copper Objects, Bone Objects, Seals and Seal Impressions, Beads and Miscellaneous Ornaments, and Burials. The grouping is to a certain extent inconsistent, in that some of the finds are described under their respective materials while others are listed according to function. A consistently functional classification

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would have called for too many separate categories and not a few cross-references. Moreover, it would have made it difficult to trace from stratum to stratum the developments and changes in the various industries under discussion; this is true particularly of the last Chalcolithic and early Copper levels. The final result is a compromise which, I hope, will prove practical. A complete catalogue of the illustrated objects precedes the Plates.[11]

Lastly, the present volume is primarily an account of Gawra *I-VIII*, since these strata were removed under my supervision while I was on leave of absence from teaching duties at the University of Pennsylvania. The trial-trench material that antedates Gawra *VIII* is given without positive stratigraphic ascriptions, since in most of the cases in question the precise stratum can be ascertained only through further excavation.

[11] For the sake of convenience the Introduction and the Catalogue have also been designated, by Roman numerals (I and IV), the Account of the Finds thus becoming Part II and the section on Comparisons and Results constituting Part III.

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II. ACCOUNT OF THE FINDS

1. ARCHITECTURAL REMAINS

THE STRATIGRAPHIC record of a given site should begin logically with the earliest layer and continue with a summary of the successive occupational changes based on the archaeological contents of each stratum. Such an arrangement would allow the material to appear in the correct historical order. Actually, however, this procedure is not always practical. Difficulties arise in instances where excavation has not reached virgin soil. In a mound that is uncovered only in part the strata are numbered necessarily from the top down. Should the account of material remains also follow the order of excavation? If so, will not the typological development tend to become obscured?

In a study of Gawra these problems of method cannot be avoided. We have seen that in the course of the first three campaigns, which are the subject of the present volume, approximately only one-half of Gawra has been removed, yielding eight strata and several sublayers. We cannot begin our report of the architectural remains with the last substratum of Gawra *VIII* because we know from the results of the fourth season that the underlying stratum was architectually related. In other words, in discussing the buildings of Gawra we are compelled to adhere to the order of excavation, starting with the topmost layer and descending from there to the earlier strata. On the other hand, there is no valid reason why the historical order cannot be restored in the subsequent chapters, in which the main types of objects are to be considered. The architectural record will thus be the only one to be presented in an inverted sequence. But even here the proper perspective will be maintained in part if we preface the detailed stratigraphic account with a few remarks setting forth the conditions under which the layers in question had grown up.

At the beginning of the first phase of Gawra *VIII* the available area at the top of the mound, then approximately thirteen metres high, measured about eighty metres by fifty. The settlement was rebuilt twice with extensive alterations, few structures retaining their original levels throughout the duration of the stratum. Eventually Gawra *VIII* was destroyed by fire. Of its immediate successor, Gawra *VII*, there are but scanty building remains, since the inhabitants of Gawra *VI* had leveled

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the ground thoroughly prior to establishing their own settlement. Notwithstanding these activities, the average level of the mound was now more than three metres above the original level of Str. *VIII*. To counteract the inevitable shrinkage of the flat area at the top, the upper slopes were terraced on the southeast side so that the total space occupied by Str. *VI* came to exceed slightly that of Str. *VIII*. The terrace was a very sensible innovation at the time; but by cutting down the normal edge it simply hastened the diminution of the surface. Upon the destruction of Str. *VI* this loss was never to be restored. The builders of Strata *V* and *IV* had thus at their disposal a considerably reduced area, ovoid in shape. It proved sufficient in both instances to support small shrines, but not much more. It was indeed unfortunate that the usefulness of the site diminished with each successive level, while its position grew constantly more commanding. As an alternative to the abandonment of the mound very little depth was now allowed between the layers. Whereas the debris of Str. *VIII* had been left undisturbed to a height of three metres, the distance between Str. *III* and Str. *II* was less than one metre, and between Str. *II* and Str. *I* only about one-half of that. But even these measures were soon to prove inadequate. Further building would have required the removal of the underlying foundations, and that was apparently deemed to be uneconomical.

We are now prepared to consider in detail the individual strata, beginning with the limited layers at the top. After what has been said above, we shall not expect much enlightenment from Gawra *I-III*, but shall trust that information will be more plentiful as we get down lower. In this respect there need be no fear of disappointment.

a. Stratum I (Plate II)

Of this originally insignificant settlement few remains were extant. After the site had been abandoned the walls deteriorated gradually, the stones rolling down to the base of the mound. Some of them were doubtless carried away by the neighboring villagers, an unfortunate practice that is common to this day. Subsequently, a few grave diggers, who saw in the lofty mound a protected burial ground for their dead, all but completed the destruction of the layer. As a result, only a few fragmentary walls have been recovered; the one that was least damaged retained the height of 40 cm.

The entrance was from the east, through a gateway 4.1 m. wide, flanked on either side by a wall which we found preserved to a length

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of more than 5 m.; the width was about 1 m. Two stone door sockets were found in place, one by each wall (Square M 6). To the north of the gateway was a pavement equipped with an irregular drain and with an oven built in directly against the wall. The main structure evidently occupied Squares M 7-M 8, but the remains were too scanty to afford an indication of its original character.

b. Stratum II (Plate III)

The building remains of this stratum are only a little more extensive than those of Gawra *I*. The walls are still low, since their foundations alone have been preserved, consisting of three rows of rough stones; the upper courses of mud brick were removed by the builders of the level above. The present plan is disconnected, though the outlines of a number of rooms are quite clear. The main structure again centered in Squares M 7-M 8. The foundations were solid and well built, and the rooms were regular; some of them had stone floors. The principal chamber (R. 201, Square M 8) had two entrances, one from the southeast and the other from the southwest. The corners were oriented towards the points of the compass. A minor building stood near the northeast edge of the mound.

c. Stratum III (Plate IV)

The available surface at the top is at this level considerably broader than it was in the case of the two upper levels; the occupied area extends now from K to O and from 5 to 9. Moreover, the occupational debris of this stratum was allowed to remain to a depth of about 1 m. Consequently we recovered here not only the stone foundations of buildings, but here and there also remains of mud brick walls, enough to indicate that brick walls upon foundations of stone were the norm at this period and, no doubt, also in the two later strata.

A glance at the plan of Gawra *III* will suffice to show that its builders had no eye for regularity or symmetry. In contrast to the neatness of the buildings of Str. *II*, there is at present no attempt at definite orientation, and the walls follow no regular plan. The whole gives the impression of architectural lawlessness. The foundations vary in width, and even the bricks are not of uniform size.

The principal building is found this time in the northeast section of the mound, corresponding to the locus numbers 5 and 6. The walls

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are 1 m. to 1.5 m. wide. In the small north courtyard (Square 06) there was a shallow basin, 90 cm. by 1.9 m., made of mud plaster 3 cm. thick, constructed over a stone pavement. Such pavements were probably to be found in all the rooms and courtyards of this stratum; none however, was preserved complete.

In the center of the level there was a frailer structure of which only a few rooms could be traced. The long stone drain in Squares M-O: 8 is notable for its comparatively careful construction in a stratum otherwise characterized by slipshod building methods.

d. Stratum IV (Plates V, XIX, XX. *a*)

With the present level we find ourselves on surer ground than has been our experience hitherto. Not only are the rooms massive and well constructed, but there is furthermore no doubt as to the nature of the compound of which they formed a part. We are now unmistakably in a religious precinct. This fact is proclaimed by the plan and the equipment of the main building as well as by the nature and distribution of the accompanying finds. It will be shown later that the shrine of Gawra *IV* is in fact the continuation of an earlier religious center, that of Str. *V*.

Stone appears to have been the all but exclusive building material. It is found in the walls and in the pavements of rooms and courtyards. Except for a small podium (R. 409) there were no traces of brick in this layer. In the upper strata, it will be recalled, we had walls of mud brick resting upon foundations of stone, which consisted usually of three courses. But even the tallest surviving walls of Gawra *IV*, reaching to a height of 1.4 m., were invariably made of rough stone, and the absence of brick cannot therefore be considered accidental.

The principal structure occupied the central and northeast portions of the site. It consisted of a spacious cult chamber, open to the northwest, and an inner sanctum or cella. The outer walls were 1.3 m. in width, except for the northeast wall of the cella which had a thickness of 1.5 m. The dimensions of the cult chamber were 12.8 m. by 10.7 m., those of the cella 7.9 m. by 6.7 m. The larger room was subdivided by means of stone partitions into three parts (Rs. 405-7). Against the southwest partition, which formed a niche 2.6 m. wide, was built an altar consisting of two flat stones 80 cm. square and 20 cm. high, laid side by side, and of another flat stone 50 cm. square and 36 cm. high, laid on top. In front of the altar was a rectangular podium of rough

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stones, 1.5 m. by 1.75 m., and 57 cm. high. In the same section of the cult chamber, against the southeast partition, was a ledge or wall-bench of large stones, 3.3 m. long, 60 cm. high, and 45 cm. wide.

The northeast wall of the cult chamber was broken up in the center by three steps of dressed stone which led to the massively built cella (R. 409).[1] Near the center of the cella was a small podium of burnt brick upon which rested an incense burner (Pls. XXX and LXXIV, 205). Even more significant than the presence of the censer on the podium was the discovery of a clay lamp and of fifteen jars varying in size, each with a lid of pottery or of stone, arrayed against the northwest and southwest walls, but all set upright under the floor of the room. It is certain that this peculiar arrangement was the work of the devotees of the shrine of Str. *IV*, and not of the people of the underlying settlement. For the floor of the next layer was considerably lower than the level at which the jars were found; so were also the objects of that stratum. Moreover, the occupational debris of Str. *V* was covered in this section by charred remains of reed-and-clay roofing, which lay many cm. deeper than the level of the vessels under discussion. Finally, the jars had not been affected by the laying of the heavy stone floor above, although some were subsequently pressed out of shape by the gradual settling of the floor. It is clear therefore that the pottery had been placed where it was by the builders of the cella, the act having necessarily a religious significance. Even without this confirmation, however, the architectural features of the building would suffice to establish its religious character.

The adjoining structures require but little comment. R. 408 abutted on the northwest wall of the cella and was reached from the southwest. This room was deeper than the rest of the shrine and it served as an ablution chamber. The water supply was obtained through a conduit that sloped into the room from the southwest and then sloped out again under the northwest wall. By means of a later wall, 5.5 m. long, which framed the entrance from the northwest, this chamber was enclosed within the shrine compound.

Touching upon the southwest wall of the cult chamber was a small rectangular room (411) that had massive walls and a floor of heavy

[1] Although the steps ascend to the cella, this room is actually below the level of the cult chamber. The steps led evidently to a wooden gallery which communicated with the cella by means of a wooden staircase. But owing to the complete destruction of the shrine by fire no confirmation of this hypothesis could be obtained.

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blocks of rough stone. It was doorless, the entrance being effected apparently through an opening in the upper part of one of the walls or, perhaps, at the top. We shall be confronted with similar rooms in Str. *VIII*. They were used evidently for storage purposes, the difficulty of access adding to the protection of the objects kept within.

To the west of the storage room and separated from the cult chamber by a narrow courtyard was a larger rectangular room (401) with its entrance from the northwest. Against the northeast wall was another small podium of rough stone, measuring 1.3 m. by 1 m.; it was 30 cm. high. We have here probably a small cult place dedicated to a subsidiary deity.

For the time being we must refrain from associating each stratum with some definite historical period, being content with the stratigraphic indications as to relative chronology. The historical position of our levels can be discussed only after the various types of finds have been described in detail in the following chapters. It may be noted in passing, however, that in Gawra *IV* we find, for the first time in our downward course through the layers, implements of flint and obsidian, late echoes of a rather remote Chalcolithic age. We may anticipate here the conclusions of a subsequent section of this book by stating that the second millennium has now been passed and that we are at present on the borderline between the Middle and the Early Copper periods.

The end of Gawra *IV* came, it would seem, swiftly and without warning. A layer of ashes, varying in thickness, testified to a thorough burning down of the site. Many of the inhabitants must have perished in the conflagration, for their charred bones were found strewn over the floors of the shrine and the pavements of the adjoining courtyards. Escape was evidently impossible, owing perhaps to the presence of the enemy at the foot of the mound. The activities of later builders, added to the effects of the fire, conspired to disturb the human remains beyond any possibility of closer identification.

e. Stratum V (Plate VI)

On comparing the plan of the present level with that of its immediate successor one may at first be surprised to note that the lower stratum occupied a narrower area; ordinarily the decrease in habitable surface follows the rise of the mound. The built up oval at the level of Gawra *V* was 50 m. in length, but only 20 m. wide. The reason for this unusual circumstance will be found in the underlying stratum. It

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has already been noted that the people of Gawra *VI* had made a terrace on the southeast slope, thus obtaining additional building ground. Following the collapse of that settlement, however, the terrace with its soft filling of debris was merely a hindrance to prospective builders; they were thus forced to avoid the treacherous edges. It required the added ruins of an intermediate settlement before Gawra *IV* could reclaim part of the lost ground.

Surprising is also the lack of consistency in the choice of building material. Some rooms have walls of mud brick set on stone foundations usually about 30 cm. high. The construction is in these cases similar to that which we have noticed in Str. *III*, and which will be found prevalent in Str. *VI*. Other rooms, however, especially the prominent structure numbered 517 and the group of which R 513 is the center (Squares M-O: 9-10), seem to have had walls built entirely of rough stone. Some sections of the walls of R. 517 survived to a height of 90 cm., far above the normal elevation of stone foundations. It is thus difficult to escape the conclusion that Gawra *V* presented a combination of two distinct building methods.

In its all-stone construction R. 517 corresponds to the structures of the following stratum. Upon closer examination the connection will prove a good deal more intimate. A comparison of the plans of the two levels will disclose the interesting fact that R. 409, the cella of the Gawra *IV* shrine, was built directly over the northeast half of R. 517, the walls of the upper room being aligned with those of the lower one. A further study will show that the lower structure was the principal part of a shrine, that of Gawra *V*, establishing thus a traditional location for the super-imposed shrine of the succeeding stratum.

R. 517 was of excellent construction and had the respectable dimensions of 9.5 m. by 5 m. The walls had a regular width of 1.5 m. The entrance was from the northwest, near the west corner of the room; it was 1.5 m. wide. To reach the door, which was hinged towards the inside as may be seen from the position of the socket, one had to descend two stone steps. The floor was covered with a hard cement of grey sand, 2 cm. in thickness. In the east corner of the room was a raised platform 50 cm. high, 2.5 m. long, and 1 m. wide. It was made of reddish cement, mixed from the so-called Amadiyeh sand, which is obtainable in the hills between the towns of Dohuk and Amadiyeh. Near the platform was a niche cut in the northeast wall; it rose from a height of 50 cm. above the floor and was covered with a thin layer of mud plaster.

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This section of the room obviously represented the holy of holies, which had not been separated as yet from the cult chamber as was the corresponding cella of the Gawra *IV* shrine.

The roof was made of reeds and clay, as was shown by the numerous fragments of hardened mud with distinct reed impressions, found near the floor level. The scanty finds of the present stratum lay of course under the remains of the roofing. Among them (at a level of 17.45 m.) was a well preserved cooking pot. Considerably above this level, but under the floor of R. 409, was found the assortment of ceremonial vessels to which reference was made above.

The thick layer of ashes found in the shrine indicated that Gawra *V* had met with an end similar to that which was to befall the next stratum. The paucity of finds in this level points to a thorough sacking of the compound prior to its destruction by fire. The objects recovered from under the ashes will be discussed in the subsequent chapters under their proper stratigraphic subdivisions.

The remaining rooms of this small settlement call for no further comment. Attention need be directed only to the small cistern in Square 05 and the oven in R. 510. It goes without saying that the shrine chamber was by far the most prominent structure of the stratum, the remaining rooms and room-complexes being merely ancillary edifices.

f. Stratum VI (Plates VII and VIII. *a*)

On descending to the level of this settlement we find ourselves for the first time in an area spacious enough to support a moderately extensive occupation,[2] instead of the small religious compounds that we have been encountering hitherto. The occupied surface of the mound measured here about 70 m. by 60 m. The ground was not level throughout. The northwest section, built over the steepest slope of the site, was more elevated than the rest. There was a gentle downward grade to the southwest and another one towards the southeast, the direction from which the place was easiest of access. It was doubtless owing to this latter circumstance that a terrace was cut in this section (G-J: 7-9),

[2] That contemporary settlements existed also, as was to be expected, at the foot of the mound was proved in the course of a brief dig on a low rocky hill a few hundred yards to the northwest of Gawra, known as *Khirbet Na'amân*. Differences with the owners of the ground cut down this work to a day and a half. Enough was learned however, to show that the area formed part of Gawra *VI*. The few finds from this section have been indicated in the Catalogue as coming from the "Khirbeh."

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about two metres below the edge of the mound. Upon it was constructed (probably at a somewhat later period than the main settlement) a row of narrow rooms with their entrances towards the main buildings and their back walls against the edge of the tell, presenting thus a formidable barrier to the enemy who would be most likely to attack from this part of the plain below. Parallel with these rooms, but still another metre lower, there came up further walls which appear to have belonged to the outer lines of defense. Although they were found at the same level as the last substratum of Gawra *VIII* (12 m.), there cannot be the least doubt that these structures actually formed part of Str. *VI*. They disclosed the stone construction characteristic of the foundations of the present stratum, whereas the buildings of Str. *VIII* were entirely of brick. Moreover, the accompanying finds were typical of Gawra *VI*. Similar walls were discovered near the west corner of the site (M-O: 10-11). It is not improbable that the whole of the settlement was thus encircled originally; the place was evidently well fortified.

At this point we may insert the note of Mr. Charles Bache on the structural remains of Str. *VI* which were found by him at a still lower level during the fourth campaign. He writes:

Lying at the extreme eastern edge of Str. *IX*, these remains were found during the excavation of that level, but obviously have no place in discussions of Str. *IX*. Comparison of the walls shown here (Pl. VIII. *a*) with the full plan of Str. *VI* shows immediately how well they fit in with the buildings of *VI*.

Typical pottery of Str. *VI* was found within the foundations here shown.

The well must have been dug at the time of the building of the walls, and was not filled in until the times of Str. *IV* at the earliest, since a great amount of the pottery of that stratum was found in the debris inside the well.

At the close of the campaign of 1932-1933 the bottom of the well had not been reached, although we had cleared it to a depth of 22.00 metres below the top (8.57 m. below our 00.00, near the plain level). It is lined with heavy stones throughout its depth to this point. [C. B.]

It will be demonstrated later that Gawra *VI* goes back to the Early Copper period, i. e., the beginning of the third millennium. The stratum was actually a composite one, having undergone several rebuilding operations, which must have extended over a considerable period of time. But with the succeeding occupations it had one outstanding feature in common: the method of construction is essentially the same

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as in the later levels. As has just been indicated, the foundations are invariably of stone, usually 30-40 cm. high, upon which are erected walls of mud brick. In none of the first six strata was brick work used exclusively, without some courses of rough stone. The bricks of the present level were not regular in size, but the most common dimensions were 42 by 20 by 10 cm. The average width of the walls was 70 cm.; some of them survived to a height of cir. 2 m., though in the majority of instances the foundations alone could be recovered. It was not possible, therefore to determine in each case the location of the doorways.

The settlement may best be characterized as extraordinarily compact. The rooms are as a rule small and the buildings are close together. They are architecturally unimpressive, lacking symmetry and regularity. It is evident that they had not been designed for comfort or for esthetic appeal. Nevertheless, the contemporary builders were not altogether devoid of ability; their work on the individual structures may have been indifferent or poor, but the plan of the township as a whole is admirable in many respects.

The central portion of the site was occupied by a large and roughly rectangular courtyard, 28 m. by 17 m. The buildings were grouped around it and extended from there to the edge of the site, which thus became automatically a formidable fortification. All the other details of the town plan were calculated to enhance the safety of the settlement. There were two town gates, one in the south corner which communicated directly with the central court and was flanked by two long walls rounded at the outside, and the other in the east. To the north of this latter gate was a one-room structure (R. 607) with walls 85 cm. wide, built of heavy blocks of stone. These solid walls were probably the base of a tall watch tower which commanded the plain to the southeast. The streets, which radiated from the central court, were long and narrow. One of them (along Locus 8) led directly to the terrace in the southeast, crossing at right angles a somewhat wider street that communicated with the southern gate. All in all, adequate provision had been made for circulation, with a view, however, to economy of space and to protection in case of attack.

Like many of the rooms, the streets were paved with small flat stones. The pavements were broken up in the middle by the drainage system of the township, the drains consisting of two parallel rows of flat stones set on end 20 cm. apart, with flat lintel stones on top. One of the drains passed through a small courtyard (J 9) east of the southern gate, close by a cistern 1.7 m. in diameter.

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There is little to be said concerning the individual buildings. If massive construction be an indication of relative importance, the edifice in J 7 enjoyed particular prominence. Its southeast wall was so solidly built that we took it to be the retaining wall of the citadel when its first section was discovered in our original trial trench. The best finds of the stratum were concentrated in this part of the settlement, especially in Rooms 650 (seals, beads, copper objects), 645-46 (seals), 621 (copper objects), 649 (beads, seals, and copper objects), and 620 (terracotta chariot and couch). In M 5 (R. 654) there was a crude hearth built of rough stones. As Mr. Beidler reports, " a semi-circular row of stones enclosed an ash pit in front of the hearth, and the room was paved with large flat stones. Outside the room were found two cylindrical ovens set in the floor. They consisted of three concentric cylinders of hard clay, each being 2 cm. in thickness and fired to extreme hardness. [P. B.] "

Gawra *VI* was destroyed by fire, like its several successors. But the inhabitants were not trapped in the burning buildings, as was the case with Gawra *IV*. Their flight must have been precipitate, however, for they left behind them many valuables. A considerable number of small objects of importance was found among the debris, a remarkable circumstance when it is realized that all of them came from occupational deposits and not from tombs, where their presence would not have been unusual.

g. Stratum VII (Plate VIII. *b*)

There are practically no building remains in this level save for a few fragmentary walls and half a dozen rooms in the north portion of the mound. In this respect the stratum is very insignificant. It is only the contemporary finds that impart to it a distinct identity. At a level approximately 60 cm. below that of Str. *VI* there were large quantities of pottery, different from the wares of the stratum above and marked off upon the whole from the fabrics of Str. *VIII*. The break with Str. *VI* is unmistakable. The walls are without stone foundations, being constructed entirely of brick of dark brown mud, poorly dried in the sun. Apart from its distinctive pottery, the present level is poor in cylinder seals, which are so frequent in Str. *VI*, but shows a fondness for the stamp seal, a type absent from the succeeding stratum. There is also a noticeable decrease in the number of copper objects, with a proportional increase in flints and obsidians. In short, we have left the

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Copper age and are now in the Chalcolithic period, to which Str. *VIII* will also prove to belong. But there is no danger whatever of confusing the two strata. The floor levels of the earlier stratum are about two metres lower and, while the building material is the same in both instances, the beautifully designed structures of Str. *VIII* contrast sharply with the flimsy remains of Str. *VII*.

The people of this stratum did their building only in one limited portion of the mound. It is certain that the east corner did not contain any contemporary buildings, for the edifices of Str. *VI* rested directly over the ruins of Str. *VIII*. In fact, the northeast foundations of R. 607 broke through the southeast wall of R. 802,[8] a room which had been originally part of the Eastern Temple, as will be shown presently. The builders of Str. *VI* went about their work in a thorough manner, and this fact coupled with the unpretentious character of Str. *VII* at its best will account for the circumstance that so little of this stratum was found extant.

b. Stratum VIII (Plates IX-XVI; XXI-XXV)

This is by far the most significant and noteworthy occupation that Gawra has yielded thus far. It is extensive and well preserved, notwithstanding the numerous levels that came to be superimposed. The settlement presents a series of unusual architectural features, some of which are remarkable for the fact that this is the earliest time in which they are known to appear anywhere. We shall see later on that Gawra *VIII* must be assigned to a period not later than the end of the fourth millennium, to use the conservative low chronology (cf. pp. 182-83).

Very striking is the uniform excellence of nearly all architectural details. The various structures display individuality of design, but the whole settlement follows a preconceived plan of the site. Strictly speaking, Str. *VIII* offers a succession of settlements, for it consists of three distinct sublayers representing three successive though inter-connected periods. That they were all phases of the same civilization is attested by the fact that some of the edifices continue in use throughout the three periods, while others are shared by the two later substrata; still others come up only in the final phase, over the ruins of earlier buildings. The history of the occupation as a whole is thus intricately interwoven. The buildings that have survived the successive changes and alterations bear witness to the underlying unity of Gawra *VIII*. On the other hand, the

[8] Cf. *AASOR*. IX. Fig. 14.

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repeated modifications in the appearance of the township reflect the influence of changing social, economic and, towards the end, also political conditions. Thus the continuance of a single civilization through three individual phases, each with a character of its own without being isolated culturally, affords us an unhoped for insight into that many architecturally delimited generations of the Chalcolithic age; one could scarcely expect more light from the otherwise inarticulate prehistoric times.

This inner unity of the subdivisions of Str. *VIII* does not preclude a further relationship of the level as a whole with the immediately preceding layers. In reality, discoveries made at Gawra in course of the fourth campaign, as reported by Mr. Bache, have proved that Strata *IX* and *X* were closely related from an architectural standpoint to Str. *VIII*. They are classed separately because their structures were not reused in Str. *VIII*, as happened in the case of the substrata. When the remains of those underlying layers have been published in a future volume, it will be interesting to trace the gradual progress that led to the finished forms of the present occupation. In the meantime we are grateful for the information that Gawra *VIII* has its roots deeper in the mound. Mr. Bache has furnished me also with certain additional notes that could be made only after the walls of our stratum had been taken down. They are incorporated in the following description, properly identified and quoted verbatim.

To return to Str. *VIII*, the sublevels are marked *A*, *B* and *C*, beginning with the topmost one. Of these, *VIII-A* alone was preserved in approximately its original outlines, undisturbed by peacetime enterprises of later builders. The settlement had contained tall structures some of which were vaulted. When it burned down, in a fire that almost turned the sun-dried bricks into baked ones, imparting to them a warm crimson tint, the upper brick courses collapsed, filling the rooms to a considerable height. Rather than dig out the hard and often fused masses, subsequent occupants of the site allowed them to remain where they had fallen. As a result, the level of the mound rose more than two metres with this one substratum, an interstratigraphic depth that was not to be duplicated at Gawra. The manner in which this occupation was destroyed became thus the means of its ultimate preservation, the walls remaining comparatively tall and the floor finds protected by the massed bricks above. But substrata *B* and *C* were not terminated in the same manner; they suffered nothing more serious than extensive altera-

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tions at the hands of the people who had continued to inhabit the remodelled site. Rebuilding did not bring with it layers of protective debris. These operations left us, however, with distorted and incomplete pictures of *VIII-B* and *C*, though enough has survived to show the principal features of the two sublevels. In our account of the stratum we shall begin with the oldest phase, *C*, and carry the description through the intermediate *B* to the culmination and ultimate destruction of the settlement in *VIII-A*.

VIII-C (Plate XI). The extant building remains of this sublevel fall into four distinct groups. In the east and west sections of the site we have isolated structures, while the occupied areas in the center and in the north consist of several contiguous building units. We distinguish, therefore, the eastern and the western buildings, and the central and northern compounds respectively. The corners are oriented consistently to the cardinal points of the compass. All buildings are constructed of sun-dried brick, occurring in two sizes: a whole brick measuring 11 by 22 by 44 cm., and a half brick measuring 11 by 11 by 44 cm., the latter type being employed for transverse bonding. The joints between the bricks vary from 1 cm. to 4 cm., and the walls are covered with a coating of mud plaster that averages 1 cm. in thickness. There were no stone foundations, but the lowest brick course was laid immediately below the surface of the floor. "The floors were first leveled, as a rule, following which a thin covering of mud, from 2 cm. to 4 cm. in thickness, was applied, to be smoothed and left to solidify in the sun. The interior doors had brick sills 11 cm. high, running flush with the walls. The interior walls were generally two and one-half bricks in width, and the exterior walls were four bricks wide. [P. B.]"

The characteristic features of this occupation are a double-crenelated [4] niche, 3.2 m. broad at the outside, sometimes pierced by a small window, and an entrance porch or *liwân*,[5] inclosed on three sides. The

[4] In using the term "crenelation" in this rather unorthodox sense (cf. e. g., Pl. XXII. *b*) I have yielded to the persuasive arguments of one of our architects. Archaeology has often specialized architectural terms for its own peculiar uses. Such terms as "cella" or "podium" are, strictly speaking, inexactly employed by archaeologists, but prolonged usage appears to have rendered them legitimate in these new surroundings. "Crenelation" may prove to be equally versatile. It must be admitted that "double-" and "triple-recessed" niches do not sound as elegant as these decorative elements actually are. A "single recess" is positively barbarous by the side of "crenel." I have deemed it advisable, nevertheless, to express here my half-hearted protest against this innovation.

[5] For *liwân*-architecture (I based this term, independently, on modern local usage)

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crenels of the niches are one brick in width and length. We have evidence that two of the crenelated buildings of *VIII-C* were used as temples. There is, therefore, a strong probability, reasonable even without this argument from analogy, that all the contemporary crenelated structures had a religious character. The buildings that reveal themselves definitely as temples are those in the eastern and western sections. The crenelated structure (centering in O 8) that forms part of the central compound may be named the Central Shrine. In the northern compound we have a room (808) which, although not crenelated on the outside, contained two inside niches and a platform in the center similar to that of the Eastern Temple; we obtain thus a Northern Shrine. It follows, then, that the level contained originally at least four religious edifices, each doubtless dedicated to a different deity. Together they formed an impressive acropolis antedating the historical dynasties of Sumer and of Egypt.

Let us first consider the Western Temple (cf. Pl. XXII. *a*). Its dimensions are 17.5 m. by 13 m. The building faces northeast, and the entrance is on the short side. We get thus the " long-room " arrangement that is destined to become traditional in Assyria.[8] From the entrance " a wide door, sheltered by a liwân, opens into a central chamber (R. 874) which communicates with four narrow rooms, two on each long side. The simplicity of the plan is a very noteworthy achievement. Symmetry is its principal characteristic. The entrance is emphasized by a deep porch; the interior doors balance each other; the long walls are decorated on the exterior by three, and the short walls by two double-crenelated niches. With the exception of four, which had interior partitions abutting against them, all of these niches may have contained windows. For the two niches in the front wall windows are established as a certainty; one of these was found in a good state of preservation. It is significant that in the southwest wall, near the western corner, there was found an infant burial, plainly a sacrificial one since it had been placed in the wall while the building was under construction. The remains of the infant lay between two flat pottery plates just large enough to enclose the body. [P. B.] "

There is one particularly puzzling problem in connection with this

cf. Oelmann, *Bonner Jahrbücher*, vol. 126. 137. But the Gawra material is considerably older than the Syrian analogues.

[8] On the question of " broad " and " long " rooms see now V. Müller, *AJA.* XXXVI, 417.

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temple. Unlike the three other sacred buildings of this period, the Western Temple failed to survive till *VIII-A*. In the following phase its entrance was blocked and in the ultimate occupation the walls were taken down to within one metre of the floor level, the portions allowed to remain were filled in, and upon this platform an entirely new set of structures was at length erected. Now since it was precisely their religious character that had saved the other shrines from a similar fate, the point may reasonably be raised as to whether we have not been begging the question in identifying the western building as a temple.[1] The absence of the customary podium or altar might also be taken to militate against such an assumption. But these misgivings are offset by other considerations. It is generally agreed that the employment of crenelation in secular buildings is unlikely. As for the podium, the structure may have contained one originally, only to lose it in *VIII-B* when the place was no longer a sacred precinct. The results obtained during the fourth campaign at Gawra and kindly communicated to me by Mr. Bache and Mr. Muller, to whom I am indebted for the appended plan (Pl. XII), provide welcome additional light on the subject. It has been learned that Str. *IX* contained what appears to have been the model for our present building. It occupied Squares M-O: 8-7, the entrance being from the southwest. If the two structures had been built at the same time they would virtually have faced each other. The plans and the dimensions are all but identical. Now the older building shows a podium in the central chamber, opposite the main door, and the religious character of the edifice is thus definitely established. The analogy is so close that all doubts as to the nature of the *VIII-C* building under discussion must perforce disappear.

It is equally clear, however, that the Western Temple lost its original importance in course of time, or it would not have been blocked off and ultimately taken down. Had the shrine been transferred to another location? This view will scarcely commend itself as a plausible solution. Perhaps, then, some change in religious allegiance is at the root of our present difficulties; the presiding deity of this particular center may have lost, for some obscure reason, its hold on its former devotees. But it is futile to indulge in speculations of this kind. The fact remains that the finest of the Gawra *VIII* temples came to be treated as a profane structure and was ultimately destroyed, while its archi-

[1] This identification is pressed by Dr. Andrae in a kind personal communication.

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tecturally inferior contemporaries were maintained with great care and survived to the very end of this composite stratum. We are confronted here with a mystery the key to which was probably lost with the passing of the people of Gawra *VIII*, not less than five thousand years ago.

Almost directly opposite the Western Temple and facing it across a courtyard 9.5 m. wide we find an asymmetrically designed structure which we shall recognize again in *VIII-B* and *A*. It constitutes part of the central compound and, since the characteristic crenelation is present, we have named this building the Central Shrine. We know now that the open space to the southeast was occupied in the preceding stratum by a temple (Pl. XII), and a glance at the respective plans will show that the south wing of the *VIII* shrine was built over the foundations of the *IX* structure. It has been indicated, furthermore, that Str. *VIII* does not represent an entirely new cultural period, but is primarily the continuation of an established civilization after a brief break following the destruction of Str. *IX*. This particular section of the mound was therefore traditionally sacred ground to the builders of both the Western Temple and the Central Shrine. The former may be looked upon, owing to the striking similarity of the two, as the heir to the older sanctuary. The other shrine is perhaps a new departure; at all events, its plan exhibits certain noteworthy differences. To be sure, the workmanship and the exterior ornamentation are the same, and the entrance is again emphasized by a sheltering liwân (R. 835), which leads to a rectangular chamber (R. 833) measuring 7 m. by 4 m. In contrast with the Western Temple, however, the door is placed this time in one of the long walls, thus producing the "broad-room" effect. In such details building conventions had not as yet become so set as to outweigh other considerations. Though the *Langraum* predominates in Gawra *VIII*, the *Breitraum* is not avoided where this design happens to be more practical, or perhaps more in keeping with a specific tradition.

Flanking the liwân are two small and almost identical rooms (825 and 818). Their mutual resemblance is emphasized by the double-crenelated niches that adorn the front walls (cf. Pl. XXII. *b*), thus facing the courtyard and the Western Temple. "Each niche was pierced by a window 10 cm. wide and 59 cm. high, just large enough to permit the smoke of sacrificial fires to escape in addition to letting in light. Traces of fire, smoke, and ashes were clearly distinguishable in R. 818. The window sills were 86 cm. above the floor level. Some of the lintel bricks over the door of R. 818 were still in place, 1.67 m.

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above the door sill. In R. 831 there was an ablution bowl of pottery set in the ground, the rim flush with the floor. The walls of these rooms were preserved to a height of nearly three metres, and were still practically perpendicular, which speaks well for their construction. [P. B.] "

Almost due east, in Squares J-K: 5-6, is the Eastern Temple, part of which was excavated in 1927. Its plan corresponds closely to that of the Western Temple. Once more we find a deep liwân sheltering the main doorway, which leads to a rectangular cult chamber (R. 802). The walls of the cult chamber are again treated with the typical crenelated niches of this period. The chamber was flanked by four narrow rooms, two on each long side. Only three of the doorways were found; the fourth had disappeared entirely. The temple witnessed all three occupations of Gawra *VIII*, but was subjected in phase *B* to considerable alterations as will be detailed below.

An important feature of the cult chamber was the platform, or "podium," laid near and parallel to the southeast wall. Not more than a small section of this platform had remained, buried under the slightly raised floor of the next sublevel. The restoration given in the plan is conjectural, based in the main on the corresponding podium of *B*.

Very significant are the infant burials discovered in the course of the 1932/33 campaign. Detailed information on this subject, which has been submitted by Mr. Bache, will be found in a later chapter together with a description of the other burials of Gawra. For the present it is sufficient to note this practice, which is encountered also in the Western Temple, as an apparently regular procedure in the building of the more important sanctuaries.

The Northern Shrine occupied Squares O-Q: 4-5. Its plan and construction differ considerably from those found in the other religious edifices of *VIII-C*. There is in the present instance no direct means of access, and the outside niches are missing. Instead, two interior niches are seen in the southwest wall of the cult chamber; they lack the usual crenelation.

The shrine was entered from the south through a small vestibule. Against the northeast wall of the vestibule was a low wall-bench of brick, broken up only by a doorway leading to the antechamber. On turning to the left we descend two steps and arrive at the wide door of the cult chamber (R. 808). It is a rectangular room measuring 8.8 m. by 4.9 m. The chief feature of this room is a large podium facing the center of the southwest wall. At a distance of 60 cm. from each corner

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of this wall is a shallow niche 80 cm. wide, starting directly above the floor. "The podium is 3.5 m. long, 2 m. wide, and 22.5 cm. high, and conforms in shape to a rough representation of an anthropomorphic figure (Plates XIV, bottom, and XXV. *b*). Two courses of mud brick form the foundation, on which was laid a thin layer of firm, cement-like plaster of clay and sand. The edges of the podium slope to the floor in a cyma reversa curve, and the corners are all rounded.

"On leaving the cult chamber by the same door and turning left, we descend another step and come to a fine doorway on the right. This doorway was found complete with lintel bricks in place (Pl. XXIII. *b*) and was 1.34 m. high. A very interesting detail was observed in the door head, which may reflect a primitive attempt at arch construction. The brick courses were found to slope down toward the center of the door head, bringing the overhead thrust to bear more upon the door jambs. Now this condition might have been merely accidental, for the earth pressure may have weakened the lintel bricks. If such was the case, however, the courses above the door jambs should be horizontal and a break might be expected directly above the point where the jamb meets the lintel. But this did not occur. Instead, the brick courses sloped upward from the center line to a considerable distance past the door jambs, straightening out gradually as they approached the top of the wall.

"Passing through this doorway we turn right to the adjacent corridor and back into the vestibule. This method of entrance and exit was evidently calculated to prevent confusion when the shrine was visited by a larger number of devotees. [P. B.]"

Isolated walls were found in M 7-8 and in M 10-11, notable chiefly for their niches, one of which (M 8) framed a small window, 50 cm. high and 10 cm. wide. The adjoining walls had disappeared completely and no reconstruction of these buildings could be attempted. The excavators of the underlying strata discovered what appeared at first to be a direct connection between these remains of *VIII-C* and the walls of an older temple. But, as Mr. Bache writes, "the coincidence is merely superficial. It is disproved by decisive differences in elevation between the base of the *VIII-C* wall and the top of the older wall. Apart from this divergence, the presence of the window in the *VIII* wall (Square M 8), occurring where there is a cross wall of the older stratum, renders any inner connection definitely impossible." The present substratum had plainly a central court in M 7-8, a place formerly occupied by the temple of Str. *IX*.

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One other contemporary building is worthy of careful notice. It is a large structure taking up Squares M-Q: 6-7, and it abuts against the northeast wall of the Central Shrine. Its construction is unlike that of any other building on this level. The walls are wider than is customary at this period, averaging 1.4 m. "The bonding is unique in that the bricks in every odd course were laid with their long sides perpendicular to the face of the wall. Five of the rooms have no doorways and there is no visible means of entrance from the outside. Access must have been gained by means of steps, and the door sills, if they ever existed, could not have been less than 1 m. above the floor level. The central room (884), measuring 11.7 m. by 4.4 m., was paved with bricks which had a thin coating of bitumen on top. The few remaining smaller rooms had floors of bitumen applied directly to the earth. In the floor of R. 884 was a depression 11 cm. in depth and 4.2 m. wide; it faced the passage leading to R. 882, and it extended clear to the opposite wall. Through the east wall of R. 889, one of the minor later additions to the building, was an oblong bin made of thin walls of dried mud, 15 cm. in thickness. [P. B.]" There was no way of determining the precise function of this complex of rooms.

We may now leave the acropolis of *VIII-C* and turn to the next layer, which represents the second occupation of the eighth stratum.

VIII-B (Plate X). The transition from *C* to *B* is marked by a series of changes that affected profoundly the general appearance of the settlement. Only the sanctuaries have survived. The large structure centering about R. 884 has disappeared, giving way to a raised courtyard. New rooms have been erected to the southeast of the Central Shrine and around the Western Temple. The additions cause the site to appear overcrowded and obscure the architectural features of the older edifices. The faultless taste of the builders of *VIII-C* is not as much in evidence as it was formerly.

Let us first consider briefly the changes in the buildings taken over from the preceding occupation. These buildings are, as we have indicated, the temples and shrines of *VIII-C*. To begin with the Western Temple, the sanctuary fared badly at the hands of this new generation. The main doorway was blocked with bricks, the fine niches in the front wall were filled in, and rooms of an inferior type were put up directly against the northwest and northeast sides of the structure. It appears in fact as though a definite effort had been made to deface the temple. R. 873 has now acquired an oven and is divided in two by a small wall

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of mud brick. As said before, we do not know what may have precipitated this virtual desecration of the precinct and the subsequent, if not consequent, construction of the esthetically unwelcome additions, the precise function of which is not entirely clear. "The strange rectangle in front of the blocked doorway may have served as the foundation of a ramp leading perhaps to a second story. In that case, the wall in the center of R. 878, near the westward corner of the building, was the newel wall of a stair.[8] In R. 879 there is a small batter platform made of the same cement mixture that was used in the podia. [P. B.]"

No changes appear to have been made in the Central and Northern Shrines. The Eastern Temple, however, did not escape alterations, but they were of such a nature as to bear out the continued use of the building as a place of worship. The chief innovation consisted in the discontinuance of the old platform by the southeast wall of the cult chamber and the construction of a new one near the center of the temple. The new podium was turned 90 degrees as compared with the old one, being now laid on the long axis of the building. It resembles the podium of the Northern Shrine, but is characterized by neater and more careful construction. It is 1.6 m. wide and 2.6 m. long. The foundation consists of two courses of mud brick set into the floor, not above it as in the other instance (for details and cross sections cf, Pl. XIV, top). Directly on top of this base was poured a layer of cement-like plaster 13 cm. deep. Here again we have a roughly anthropomorphic representation, incised in the cement coating of this rectangular elevation; in the Northern Shrine, it will be recalled, the whole platform had been fashioned into the desired representation. The only other noteworthy innovation in the Eastern Temple is the erection of a curtain wall in R. 801.

The one new structure of this period which presents an independent unit is to be found in Squares M 7-8, thus occupying the space assigned formerly to the small court southeast of the Central Shrine, and earlier still given to an independent temple (Str. *IX*). The building is practically square and rises in the center of the site. It consists of eight deep and doorless chambers whose walls were preserved to an average height of 2.5 m. A careful examination of each wall, brick by brick, left no doubt that the whole building, which continued into *VIII-A*, had never been equipped with the ordinary type of entrances. The framework of the roofs was of wood, covered with reed and mud

[8] This suggestion was first made by Dr. Jordan on the basis of parallels at Uruk.

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plaster, probably with a small opening as the only means of access. The rooms were obviously used for storage purposes. In times of siege the central location and the protected position of this structure made it an excellent defensive compound; indeed, many basketfuls of sling pellets were recovered at this spot.

To *VIII-B* should be credited one other construction useful alike in peace and war. It is a deep well, located in J 7, with a diameter of 2.8 m. (Pl. XXV. *a*). By the end of the third campaign our workmen had excavated the well to a depth of 24 m., without arriving at the bottom. The sides were covered with a coating of mud plaster 1.5 cm. thick. "Two rows of staggered indentations went down the side, providing serviceable if precarious footholds. As the well deepened, the diameter decreased gradually to 2.4 m. at a depth of 23 m., where the plaster coating ceased. Leading from the well towards the inside of the settlement was a water conduit typical for this level. It consisted of two rows of flat stones on end covered by flat lintel stones. The sides and walls of this channel were covered with bitumen, rendering it water-proof. The slope was half a centimetre to the metre. [P. B.]"

VIII-A. (Pl. IX). The latest occupation of Gawra *VIII* marks a return to sound architecture and to adequate site planning. These objectives were attained by means of the most extensive alterations attempted in any phase of this stratum, as a result of which one-third of the site was covered up completely (locus sections 9-11, across the entire width of the mound), a totally new set of structures being erected on the freshly leveled area. The whole section rose approximately two metres above the mean level of *C*. Since the floors of the structures taken over from the first occupation had risen but slightly during the same period, *VIII-A* presents of necessity considerable variations as to level. How these discrepancies were counteracted will appear in the course of the following account.

Again we shall turn first to the re-used buildings, which generally have a background of religious tradition. This time we shall begin with the Eastern Temple.[9] This structure had been allowed to remain virtually intact, except that the door at the head of the curtain wall dating from *VIII-B* is now blocked with bricks. There is, however, a new series of rooms and enclosures, starting with a well-constructed room abutting against the north corner of the temple, and extending in an irregular but unbroken succession to the limits of the old northern

[9] For an account of the finds from this Temple *AASOR.* IX. 32 f.

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compound. The room immediately adjoining the temple (832) was used for ablution purposes. The floors were water-proofed with bitumen and a large pottery basin was set in the west corner. The same method of water-proofing was applied in the liwân of the temple itself, where the floor had been paved with bitumen starting at the base of the walls and sloping gently away from the building towards the court-yard in front. Very likely this improved treatment of the liwân floor was made necessary by the difference in elevation between the old temple and the new adjoining structures. The floor of the ablution chamber was nearly half a metre higher than the floor of the liwân, so that the latter had to be suitably protected. Levels in this whole section of the site are particularly subject to fluctuation owing to the various additions made at different periods. Thus the terrace to the northeast of the ablution room is as much as 65 cm. higher than that chamber, from which it was entered through a door that had two brick steps laid on its sill and covered with bitumen.

The intermediate structures that close up the space between the Eastern and Northern sanctuaries are curiously irregular. They were evidently used for the temporary herding of sacrificial animals and for the storing of temple offerings. It should be stated in this connection that much of the floor of R. 801 was covered with quantities of knuckle bones of sheep, and this fact throws added light on the character of the building additions which we have been discussing.

Not far from the north corner of R. 806 was found a cylindrical structure which was paralleled by another one in Square J 10, at the opposite corner of the site. The two " resembled base structures of columns and were constructed of loose brick covered with mud plaster. They were built in what had formerly been doorways. They were ornamental in character and were not used as bearing members. [P. B.] "

Alterations were also carried out in the Northern Shrine. The old corridor (867) was blocked by a partition, and the construction of R. 865 necessitated a modification of the vestibule (809). R. 868 was torn open, doubtless to allow more space at the entrance of the shrine. Since the floor level of the vestibule had risen, an inclined plane led down to the steps in corridor 866. As in the other buildings, the walls and floors were covered with mud plaster.

Turning now to the Central Shrine, this building faced in *VIII-A* a large enclosed court (830) paved with small stones set in mud plaster. " At one time the court had a raised platform at the southeast end upon

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which entered a long and narrow street bearing southwest to the edge of the site. A large pottery basin, 75 cm. in diameter, was set in the floor near the western corner of the court, its wide rim flush with the floor (like on Pl. XXIV. *b*). Across the niche of R. 818, which in common with the rest of the shrine had survived two previous occupations, was built a low parapet wall to keep water from draining into the room through the window that was by now near the court level. Differences in level between the *VIII-C* shrine and the *VIII-A* court caused the construction of a ramp inside the liwân (835) in order to facilitate access to the old building (Pl. XXI. *b* and *c*). The ramp inclined upward from R. 833 to the court. It was flanked on each side by a narrow parapet of mud brick, 15 cm. high and 18 cm. wide, and had a slope of 13 cm. to the metre. It was 3 m. long and 1.5 m. wide and had a floor of hard mud plaster stained yellow. [P. B.] "

One other building dating from a previous occupation has been retained. The eight doorless chambers adjoining the Central Shrine have lost nothing of their former usefulness. R. 817 now contains a pottery kiln, its walls of fused clay bearing evidence of the high temperatures required in firing the various fabrics.

It remains now to consider the new building units that have no definite relation to the structures inherited from the preceding settlements, and to obtain a composite picture of the township as a whole. A glance at the plan will show that most of the new enterprises are grouped in the west and south portions of the site. To render this possible older buildings had to be torn down, there being little open space available. The doomed structures were the old Western Temple, whatever its use in *VIII-B* may have been, and the additions that had risen about it. The walls were actually not destroyed to their foundations, but were allowed to stand to an average height of about one metre, the rest being filled in later. The resultant rise in level of the section thus affected made it necessary, among others, to construct ramps leading to such older sections of the township as, e. g., the Central Shrine. The existence side by side of the old and the new is one of the outstanding characteristics of the present occupation and, incidentally, it serves also as an excellent guide through the architectural and social vicissitudes of the entire stratum as a unit.

It will be recalled that *VIII-C* was primarily an acropolis. The same was largely true of *VIII-B*, since the secular and semi-secular buildings of that time were distinctly secondary in importance. In township *C* the

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center of gravity shifts away from the sanctuaries. They may still constitute the nucleus around which the new town will grow up. But the three shrines that have survived will soon be outnumbered and effectively counterbalanced by buildings of residential and commercial aspect, and an unmistakable worldly tone will permeate the once quiet and restful religious center. That this is an altogether plausible interpretation may be seen from the type of buildings which rapidly fill up the new quarter of *VIII-A*.

To take a few concrete examples, let us first examine the structure facing the Central Shrine. The court (830) that separates the two has already been mentioned. A shallow niche accentuates somewhat the unit with which we are now concerned. A long reception room (829) is flanked by two rooms on the southeast and one long room with two doorways on the northwest. The door sills are raised about 20 cm. from the level of the floor and are made of mud brick. The southwest wall is decorated with two wide shallow niches, though they are virtually concealed by rooms (850, 851) that have been built almost against them. A long and irregular room (826) is part of the building, but has no direct communication with its other portions, having instead an individual entrance from the southeast. It is noteworthy that the double crenelation is absent; a trace of the old ornamentation is preserved, however, in a few simplified niches, one of which takes the place of the liwân as well. The severe symmetry that was so typical of the past is also upset. In short, the traditional architectural motives are on the wane, even though former building conventions still maintain a certain hold. Apparently the character of the building did not call for any special conservatism of design; this might be essential in temples, but need be no more than optional in private dwellings.

The unwieldy structure built back to back against the house just discussed contained a batter mortar built into R. 849. The contiguous rooms were probably stalls for the storage of newly made pottery. Similar stalls were put up along the northwest edge of the mound, which evidently represented the township's bazaar.

Two streets cross at approximately right angles in the new quarter of *VIII-A*. One runs northeast and southwest, from the southeast wing of the Central Shrine to the western portion of the site. It is met about midway by the other street, which is fairly straight and about 1.5 m. wide; this thoroughfare was paved in part with a variegated mosaic of potsherds set in lime plaster.

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At the intersection of these streets we have the west corner of a large compound that includes a hall (846), an open inner court (848), and the house centering about R. 822. The hall in question was vaulted, and what has remained of it is sufficient to prove that the vault was built with true arch construction of mud brick (Pls. XIII and XXIV. *a*). The average span is 3.25 m. and the length is 8.5 m. "The wall on the street is more than twice the thickness of the opposite wall, being 1.75 m. wide. This great disparity was probably deemed necessary owing to the fact that the street wall stands free and has no supporting walls as has the side opposite. The spring line of the vault is near the floor level and the intrados springs up in a smooth and graceful arc. The bricks of the archivolt are slightly wedge-shaped, thus playing the part of voussoirs. There is no transverse bonding, since the longitudinal joints were one above the other, but as the wall rose and the vault turned inward the individual bricks became wider, thus taking up the space left open by the curving of the vault. The sides of the vault are cut up by irregular depressions resembling niches which were not provided in the original structure, but were constructed later to enclose wall-benches. When the arcs of what remained of the vault were projected the hall was found to be about 2.1 m. in height. [P. B.]"

To the northeast of this vaulted hall is a dwelling in which was incorporated the only full liwân built during *VIII-A*. The liwân (823) opens on an enclosed court or terrace (848), and leads on the other side to the reception room (822). The disposition of the doors follows the "broad-room" arrangement. The four smaller rooms were apparently the living and sleeping quarters. The average size of bricks is the same as in the shrines (11 by 22 by 44 cm.), but the bonding throughout the buildings of this period differs from that of the older structures (cf. Pl. XVI, bottom).

The remaining structures of *VIII-A* call for no special comment. The plan of the settlement as a whole is also clear. Two main parts are plainly distinguished: the Old Quarter in which the sanctuaries are dominant, and the New Quarter which has a residential and commercial character. The distinction is thus not only chronological but also functional. Within the two sections of the township the grouping of the buildings is also different. In the acropolis the final plan was dictated by the location of the old sanctuaries. By building up the open spaces between the three shrines a large "square" was obtained, all the buildings being grouped around a main court which was open only to

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the south. The ultimate result was protection against the elements as well as against attackers who might be lured by the fame and wealth of the place.

The designers of the New Quarter had the advantage of starting with a clear slate. Their principal contribution was adequate provision for circulation by means of two well placed thoroughfares. Unhampered by restrictions imposed by religious tradition, these builders were free to try out novel architectural ideas, such as the vaulted hall and the new bonding methods. In the last analysis, however, the modern secular buildings are not entirely free from the influence of inherited temple architecture. Their builders could not, or would not, make a decisive break with the past.

Our brief survey of the architectural remains of Gawra is now completed. The historical connections of these finds, as compared with the results from other contemporary sites, will be touched upon later.

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2. POTTERY

(Plates XXVI-XXXI; LXII-LXXVI)

By Dorothy Cross

The study of the extensive ceramic material from Tepe Gawra has been divided, in accordance with the method followed in the present work, into two different and essentially independent parts. The first of these aims primarily at setting forth the internal evidence furnished by the pottery of the first three campaigns. It is concerned with the description of the developments and the changes observable from level to level in terms of wares, shapes, and decoration. The primary task is to bring out the salient characteristics of the pottery from each individual stratum, and it is to this effort that my own work has been confined. The question of foreign relations and of possible synchronisms with other sites, with all its cultural and chronological implications, has properly been relegated to a later portion of this book.

While most of our material was unearthed in the course of regular excavation and is thus definitely stratified, we have also a certain amount of pottery found in the trial trenches at levels earlier than Str. *VIII*. The relative sequence within this latter group is sufficiently clear, but no definite stratum can be assigned to the specimens in question until the excavators have uncovered the early prehistoric levels of Gawra. For this reason our first section will deal with the "unstratified" pottery, to be followed by separate accounts for each level from Str. *VIII* to the top.

a. Unstratified Material (Plate LXII)

As has just been indicated, the pottery grouped under this heading was recovered from the trial trenches and antedates Str. *VIII*. It is significant that all but two of the illustrated specimens of this class show painted ornamentation. We are dealing obviously with the remains of a series of occupations that belong in the main to the so-called Painted Pottery period.

Apart from sherds, many of them older than the illustrated material, which will be discussed in their proper contexts in a future work the earliest specimens are Pl. LXII. 1-3, and 16. All are handmade bowls,

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the latter two with tripod bases. Fig. 1, of buff ware, is wet-smoothed and is decorated in brown paint. The design consists of radial lines on the rim with a solid inside band below and a comb-like pattern in the center of the base. Fig. 2 is of brown ware and wet-smoothed; the design, in red paint, covers the inside walls and consists of a zigzag pattern surmounting a broad band. Fig. 3, of buff ware, is wet-smoothed and its rim is decorated with series of dark brown lines alternating with blank spaces; a narrow band of the same color is applied to the inside below the rim. Fig. 16 is roughly made and undecorated; the ware is brown.

In the next group we have three handmade cups, which are illustrated as Figs. 6, 8, and 12; all are wet-smoothed. Their stratum is in all probability *XIV*, and they are remarkable chiefly for their polychrome ornamentation. The colors are light red and purplish brown. Fig. 6, of buff ware, displays a disc base. The outside decoration consists of triple zigzags, the outside line red and the two outside ones brown, and of four bands, two red ones flanked by two painted in brown. On the inside below the rim we have a red band and a brown one directly below it. Fig. 8 presents only a minor change in that it has three bands and quadruple zigzags, the color scheme remaining the same. In Fig. 12 vertical lines take the place of the zigzags with a cross-hatched triangle between them pendent from the rim. The ware is in this case brown.

Next in age are two groups of vessels which may be dated tentatively to Str. *XIII*. Figs. 17-19 contained infant burials, with Fig. 9 serving as the lid of No. 17. At the same level, but not associated with the burials, were found two tumblers (Fig. 11, and Pl. XXVI. *b*), and the bowl shown as Fig. 13 (= Pl. XXVI. *a*). The lack of decoration in Fig. 17 seems to have been compensated for by its ornamented lid (Fig. 9). This bowl, with ring base, has a scalloped pattern in brown paint inside the rim. Fig. 18 (Pl. XXVI. *c*) is a large jar 440 mm. in height and 540 mm. in diameter. Of greenish grey ware, it is wet-smoothed, and the upper third of its outside surface is decorated in dark brown paint. The design consists of two staggered rows of double-axe figures spaced in a field of straight horizontal lines. Below there is a zigzag pattern (accidentally omitted in the drawing, cf. Pl. XXVI. *c*). Fig. 19 is a large globular jar of greenish grey ware, handmade in common with all the other specimens of this group, and wet-smoothed. The paint, applied on the neck and shoulders, is dark brown. The

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design is composed of a row of diamond-shaped figures, alternately cross-hatched and filled around a central cross. The pattern is framed on either side by two narrow bands and a broader one.

Fig. 11 and its companion piece, Pl. XXVI. *b*, are tall pointed cups of extremely fine buff ware, coated with a cream slip. The design is applied in both instances in dark brown paint. In the case of Fig. 11 we have a pattern composed of sharp and irregularly spaced chevrons below the rim with a graceful feather motive on the bottom. The other piece displays the same feather motive on the lower surface, but the upper half contains a row of diamond-shaped figures with stippling among them, framed by two bands; in addition there are the chevrons noted above. Fig. 13 (Pl. XXVI. *a*) is a cup or bowl of greenish grey ware coated with a cream slip. The decoration consists again of chevrons, irregular diamond figures, and stipples, with triangles taking the place of the former feather design.

The remaining specimens illustrated on Pl. LXII are all bowls and cups which date in part from a level corresponding probably to Str. *XII*, and in part to Str. *IX* (or else to a period intermediate between *IX* and *VIII*). The older group comprises Figs. 4, 7, and 10. Fig. 4 is of greyish buff ware and is decorated on one side of the inner surface with a cross-hatched design in dark brown paint. Fig. 7 shows reddish buff ware and reddish brown decoration composed of cross-hatched and checker-board patterns. Fig. 10 is of greenish grey ware, wet-smoothed. The paint is dark brown and the design yields simple bands and pegs.

To the later group belong Figs. 5, 14, and 15. The bowl shown in Fig. 5 is of red ware, undecorated except for an inside red band below the rim. Fig. 14 has light brown ware, cream slip, and dark brown paint. The design recalls strongly that of the burial urn shown in Fig. 18, for which reason special attention should be called to the difference in levels. Fig. 15 is of buff ware and has a rounded base, sharp carination above it, and concave walls. The decoration is carelessly applied in black paint and consists of plain vertical and horizontal lines.

Lastly, mention should be made of the painted wall knobs as represented by Fig. 210 (Pl. LXXV). The banded decoration in red paint is typical of this type.

After this brief survey we pass to an examination of definitely stratified pottery, beginning with Str. *VIII*.

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b. Stratum VIII (Figs. 20-50, 211, 216-17)[1]

Just how much the occupants of Str. *VIII* owed to their predecessors as regards technique, shape, and ornamentation remains to be ascertained. On the basis of the evidence available at present the pottery of Str. *VIII* differs from the material prevalent in the lower levels by the all but total absence of decoration and by emphasis on certain particular shapes.

To take first the stratum as a whole, certain forms are current throughout its three occupational layers; they include the round-based and crude flat-based bowls, the straight-sided and bell-shaped cups, the the deep carinated bowl with tapering base, and the globular pot with flaring rim and a tendency toward body carination, and pots with tubular side-spouts. In addition to these forms, however, *VIII-A* presents an abundance of types which doubtless herald the arrival of a new cultural element possessed of a distinctive ceramic tradition. The new types are the finer flat-based bowl and jar, painted and ribbed chalices, the globular and ovoid jar, and the double and triple-mouthed jars.

The pottery of this period was in the main wheelmade, but handmade fabrics were not uncommon, particularly in the case of large household vessels and certain specimens of peculiar form.

The better examples are made of buff, grey, or greenish grey ware. Buff is the predominant color; it varies from a light to a dark hue and shades off into true red only on rare occasions. By the side of greenish grey, usually pale in color, we have isolated specimens of a purer green. The household pottery, on the other hand, is brown, reddish brown, or dull grey.

The surface of the finer wares is wet-smoothed as a general rule. Slips seem to be confined to jars, the color being cream save for single cases of grey and red. Apart from incised lines ornamentation is not found in Str. *VIII-B* and *C*. But with the influx of new forms in *VIII-A* there may be observed a tendency toward painted ornamentation applied to shoulders of jars (Fig. 42) in cross-hatched triangles of red or brown and in rectilinear patterns of the same colors on the bases of chalices. While complete chalices were not recovered from Str. *VIII*, the available bases correspond to the one perfect specimen from the Str. *VII* (Fig. 58 = Pl. XXIX. *a*). An incised herringbone pattern occurs on a square vessel from Str. *VIII-A* (Fig. 216), and horizontal ribbing

[1] The Figs. mentioned in the following discussion will be found on Pls. LXXIII. ff.

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appears in the same layer on a number of vessels and on chalice bases. Identical ribbing has been found on corresponding types from Billa *VI*. Burnishing is rare. The finer vessels are wet-smoothed, but this is done in a careless manner. Only a few specimens show definitely horizontal or vertical smoothing.

Bowls (Figs. 20-26). The most common form of bowl is that with a round body and base. Both wheel- and handmade, it is found throughout the three phases of Str. *VIII*. The handmade bowls are normally of coarse-grained brown or reddish brown ware, while the wheelmade examples are usually greenish grey. The rims may be straight (Fig. 22), or curved inward (Fig. 26), prolonging in each case the lines of the body, or else they may be formed by a curve reversing the line of the body (Fig. 20). The grooved rim and the double-curved body (Fig. 21 and Pl. XXVII. *b*. 1) belong apparently together, both features being present in the four extant examples of this type. Fig. 23 (= Pl. XXVII. *b*. 3) is an isolated instance of an ovoid bowl with the longer sides curving downward.

One flat-based type is common to all three occupations of Str. *VIII*: the handmade bowl of coarse brown or reddish brown ware (cf. Fig. 56). Poorly shaped for the most part, it is the crudest example of pottery found in either Str. *VIII* or Str. *VII*. Figs. 24 and 25, both from *VIII-A*, are isolated occurrences.

Deep Bowls and Pots (Figs. 27-34). Under this somewhat vague heading have been listed several individual types, which have in common wide mouths, bases that are either round or tapered down to varying widths, and a marked tendency toward carination, but otherwise remain distinct from each other. While not limited to any single phase of this level, they are particularly common in Str. *VIII-A*, but disappear completely in the level above. As for carination alone, it had carried over from the previous occupations to attain in Str. *VIII* a prominence that was not to be paralleled again or even approached. The predominant ware is buff, never coated with a slip.

The leading type (Fig. 30) is characterized by a sharply rounded base, carinated body, and slightly everted rim. Secondary variations are achieved in *VIII-A* by means of a more distinct rim and widely spaced horizontal ribs decorating the shoulder (Figs. 31 = Pl. XXVII. *b*. 2 and 48). Closer ribbing is found on a contemporary cup-shaped piece (Fig. 34 = Pl. XXVII. *b*. 5) whose straight sides taper in a double curve to a pointed base.

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A popular type throughout the stratum is represented by the globular pot with sharply rounded body and straight rim (Fig. 32). Frequently there appear here three unevenly spaced suspension holes. A shallower pot with low carination and constricted rim has four such holes (Fig. 29).

A shallow vessel with mild carination and short everted rim (Fig. 28) appears only in the uppermost occupation. A unique vessel with irregular rim (Fig. 27) belongs to the same phase. The irregular shape may have been caused accidentally in the process of firing. In this connection attention should be called to Pl. XXVII. *b*. 6, which shows a pot with low carination and similar distortion of shape at the top.

Fig. 33 is an unusual vessel from Str. *VIII-A*. Its constricted neck high shoulder with deep groove, and the fine incised shoulder decoration render it without parallel in this stratum. The piece is of dark grey ware, well burnished.

Cups (Figs. 35-36). Two types of cup proper occur in this level, one bell-shaped (Fig. 35 = Pl. XXVII. *b*. 9), and the other with straight corrugated sides (Fig. 36). This latter form is particularly common. The characteristic corrugations are usually irregular and the bases disclose slight rounding. Though the type as such continues into Str. *VII*, the corrugations are there clearly on the decline. Of the bell-shaped cup we have only four specimens. This shape is not encountered in the immediately succeeding layers, but recurs with certain changes in Str. *IV*.

Jars (Figs. 37-51). The most common form of jar has a carinated body, slightly constricted neck, and everted rim. The carination is central (Fig. 41), high and thus forming a shoulder (Fig. 43), or low (Fig. 42). The curve of the base may be sharp or flattened. The jars are usually wet-smoothed, but from Str. *VIII-A* comes a jar identical in shape with Fig. 43, with a vertically burnished coating of red slip, while two contemporary specimens with cream slip correspond to Fig. 42. In these two instances the shoulder has a painted decoration of cross-hatched triangles, one in red and the other in brown. In Fig. 40 (Str. *VIII-A*) carination gives way to a round curve. From the same topmost phase comes the isolated specimen of globular jar with short beveled rim (Fig. 45).

The mildly carinated form with short narrow neck and grooved rim (cf. Fig. 44) is found in Str. *VIII-B* and *C*, while the unique specimen with ledge rim and grey slip (Fig. 46) represents Str. *VIII-B*.

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Also in the topmost layer, and restricted to it, are found globular jars with flat bases, exemplified by Fig. 47 (= Pl. XXVII. *b*. 8). The neck is normally curved and flares to a collared rim.

The only extant storage jar (Fig. 51) is made of buff ware, and has an oval body and carinated rim.

There are two types of large vessels with mouths wider than the body, which should perhaps be listed in this connection. The rims may be beveled (Fig. 50), or they may curve outward and then again inward from the body (Fig. 49). In both groups we occasionally find circular holes near the base. Inasmuch as these vessels were invariably set in the ground with their rims flush with the level of the floor, to be used as wash basins, the holes were obviously intended to facilitate drainage (cf. Pl. XXIV. *b*, and Pl. IX. Rs. 830, 832).

Spouted jars occur throughout the level, but are most common in Str. *VIII-A*, whence they carry over to the next occupation. They are always of globular shape and their rims are small and rolled. The spouts are long and narrow (Fig. 37 = Pl. XXVIII. *b*. 5).

The two-mouthed jar (Fig. 38) is from Str. *VIII-A*. It is handmade and of coarse grey ware; both openings are of approximately the same size (d. 45 mm.). From the same layer comes a triple-mouthed jar (No. 39 = Pl. XXVII. *b*. 7). Also handmade, but of buff ware, it has openings evenly spaced, which correspond closely in size (d. 45 mm.).

Varia. The specimens mentioned under this heading require individual classification. A square receptacle (Fig. 216), is unfortunately too fragmentary to disclose its complete shape. Of well fired grey ware, it is incised with a fine herringbone design. No. 217 represents a rectangular compartment tray in three parts.

Ladles are common throughout the stratum. They all follow the same model with deep round bowl and long curved handle (Fig. 211 = Pl. XXXI. *b*. 3). Two other examples are illustrated *ibid*. Nos. 1-2—the former being of grey ware with a dark grey slip. The variations in size are considerable.

c. Stratum VII (Figs. 52-83, 195, 204, 207, 214)

The pottery of this level is noteworthy for several reasons. In the first place, it imparts a marked degree of individuality to an occupation of which the architectural remains are meager and unimpressive. The relationship with Str. *VIII-A* is established by the continuance of

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several important types, but side by side with these we note the appearance of new forms.

The continued types include the crude flat-based bowl, the chalice, spouted jars, and the globular and ovoid pots, the latter two forms acquiring added prominence and displaying certain developments and changes as regards detailed features. On the other hand, the corrugated cup loses in popularity, while carination has been retained only on bowls and on a few scattered jars. Round-based bowls are replaced largely by flat-based forms and disc and ring bases make their appearance. Among the new types, the bottle and the ring-based jar call for special mention.

As was the case with the material from Str. *VIII*, most of our present pottery is made on the wheel, handmade specimens being confined to household objects and vessels of highly specialized forms. Buff is still the predominant ware, but greenish grey ware shows a marked gain.

The firing is definitely superior to that of the preceding level; at times it approaches vitrification. This is especially in evidence with a fabric unknown to Str. *VIII*, but introduced now for the first time and continued in Str. *VI*. The ware is a dark bluish grey, found among both bowls and jars, and the specimens in question are always extraordinarily well fired.

The surface is normally wet-smoothed. Slips are more frequent, however, than they were before, the color being pink, cream, or brown. Painted ornamentation has become one of the significant features, the colors being confined in this case to red and dark brown. In addition to the painted chalice, which will be discussed below, we have a number of painted sherds. The commonest designs consist of simple geometric patterns, cross-hatchings, filled and hatched triangles and scalloped figures on rims of jars. A highly elaborate arrangement is found on Pl. LXXVI. 10. Divided into panels, the pattern is done in reddish brown paint. Even more frequent is the use of incised ornamentation, sometimes combined with painting. Examples of this practice are given *ibid*. Figs. 8 and 9. The former bears a representation of a goat painted in brown, the style being typical of this period as may be judged from the foreign analogues. In Fig. 9 we have a human figure painted in dark brown; contemporary parallels are this time infrequent.

To return to incised decoration, we notice the usual simple geometric designs, including cross-hatchings, herringbones, and comb pat-

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terns in addition to more complicated arrangements. Combined incised and appliqué work is illustrated *ibid*. Fig. 7, where we find an incised plant motive coupled with a serpent modelled in the round. Numerous examples of such serpents came to light in this stratum, the snake being ordinarily represented with its head overhanging the rim. *Ibid*. Fig. 11 shows a scorpion in relief combined with a cable moulding. In the case of Fig. 5 (on the same plate) the same technique has been employed on a wavy ledge handle. Ribbing continues on chalice bases and on shoulders of jars.

The most significant inovation is the potter's mark which is frequently encountered. Incised before firing, it assumes various specialized shapes (cf. Figs. 75 and 80, Pl. LXVI).

Burnishing is more frequent than in Str. *VIII*; it is found chiefly on the nearly vitrified bluish grey ware. The specimens in question take a very high polish.

Bowls (Figs. 52-57). The flat-based bowl of coarse brown or reddish brown ware which was so common in Str. *VIII* continues popular in the present level. It is always handmade. As an occasional departure from the norm the base may be set off from the body, the sides becoming more prominently rounded (Fig. 54). This special type occurs also in wheelmade specimens.

The round-based type will really come into its own in Str. *VI* (Fig. 99). It resembles also the bowls of Str. *VIII* with regard to body form, but the rim curves inward in a hook.

A trace of carination persists in two similar types, both of which are again to gain in importance in the next level. The type preferred in the present stratum shows a disc base and an outward rolled rim (Fig. 52), but specimens with less defined base and plain everted rim are also frequent. A similar specimen (not illustrated) has a wide ledge rim with four grooves.

Another future favorite is represented by the small flat-based bowl with rounded shoulders and rolled rim (No. 53). The variant with double-curved body noted among the bowls of Str. *VIII* (No. 21) is more accentuated in this respect in the single example from Str. *VII* (No. 55), where it has a disc base and plain rim. Made of the nearly vitrified bluish grey ware, it has a brown slip on the lower half of the body.

Fig. 57 is an isolated instance of coarse red ware. The collared rim

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with central groove is rare, but the sharply indented ring-base will be found often in Str. *VI*.

Cups and Chalices (Figs. 58-59). The cups found in Str. *VII* represent two types, of which one is common in Str. *VIII* but vanishes with Str. *VII*, while the other starts with the present level and continues into Str. *VI*. The former is characterized by the corrugated sides (Fig. 36) noted before, and the latter may have straight (Fig. 105) or slightly curved (Fig. 104) sides and mildly rounded bases. Both types have approximately the same frequency.

Our only complete painted chalice (Fig. $\frac{\leq 8}{52}$ = Pl. XXIX. *a*) is made of buff ware and is coated with a cream slip to which is applied a design in brown paint. The pattern shows a metope arrangement, a feature observed in connection with the painted chalices of Billa *VII*. Attention should be called to the curvilinear motive with which the foot is tectonically decorated. The same arrangement is followed on many of the chalice bases found in this occupation. Other bases show the ribbing technique noted in Str. *VIII*.

The only other complete chalice from the present level (Fig. 59) is crudely made of light red ware and is finished with a pink slip.

Bottles (cf. Fig. 60). This type is found only in Str. *VII*. Made by hand, it is usually of coarse brown ware and exhibits practically no variations as to shape.

Spouted Jars (Figs. 61-63). These vessels are continued from the previous layer, but become more numerous at this stage. There are among them considerable fluctuations as to technique, some specimens being cruder than those of Str. *VIII* while others are of decidedly better workmanship. The crude examples are of buff ware and fall into two types, according to the formation and position of the spout, the shape of the rest of the jar remaining relatively constant. In the more common type (cf. Fig. 62) the spout is made of the same piece as the body and projects from its side. In the other type (cf. Fig. 61) the spout is set on the shoulder of the jar. The specimen illustrated happens to be without its spout, but on the evidence of numerous fragments it is safe to state that the spout was comparatively long and narrow, precisely as in Str. *VIII*.

We have only one intact example of the finer jars of this class (Fig. 63), but the popularity of the vessel is attested by numerous sherds. With its globular body and spout set on the shoulder it recalls again the specimens from the preceding stratum, differing from them only by

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reason of its elongated neck and overhanging rim. It is generally made of the nearly vitrified bluish grey and grey wares, and shows a high polish.

In this connection we should mention the double-spouted fragment illustrated on Pl. LXXVI. 2. It is of grey ware with a slip in dull red.

Plain Jars and Pots (Figs. 64-83). There is one class of jar that is peculiar to Str. *VII* and sets it off from the other levels of Gawra. Its features are a globular or oval body (not carinated as in Str. *VIII*) combined with a constricted neck and an everted rim. It occurs in a variety of wares, with buff predominating, followed closely by the nearly vitrified bluish grey and dark grey fabrics.

The main type has a medium neck (Fig. 73), examples showing a squatter body and the body bulge low (Fig. 72) or central (Fig. 76) being next in frequency. Not far behind is the type with oval body and narrow neck (Figs. 69-71). Fig. 77 is an isolated specimen with high shoulder and rolled rim. It is made of grey ware, fired to considerable hardness which combines with the thick walls to impart to the piece a texture and weight of stone. The rims are for the most part straight, important exceptions being furnished by Fig. 79, with flat rim extended inwards, and three specimens exemplified by Fig. 78, where the rim forms an inside grooved shelf with a downward incline.

Globular pots with short outsplayed rims fall into two categories depending on the rim. This may be either plain (Fig. 75) or rather intricate, being rolled outward and having a deep groove on the inside just above the neck (Fig. 74). Fig. 80 stands isolated among the jars, with its globular body and rolled everted rim. It bears a potter's mark, as does Fig. 75.

Body carination is restricted to one type of larger jar with constricted neck and flaring carinated rim (Fig. 81). The carination is, however, very slight and might be regarded as rounding. Nearly all the examples of this form are made of the nearly vitrified bluish grey ware.

The flat-based jars include a common type characterized by an oval body, a rim like that in Fig. 79, and ring base (Fig. 68); there is here considerable diversity as to ware. All the other flat-based jars are represented by single examples. Fig. 64 has a long oval body, indented ring base, constricted neck, and plain flaring rim. Fig. 65 has a more slender body and curved neck. Fig. 66 is similar to forms found among the round-based jars, but here the base is flat. Fig. 67 has the high

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sharp shoulder and rolled rim found on jars from Jemdet Nasr, but lacks the spout and handle of the southern specimens. The high position of the shoulder may account in this case for the presence of the decorative design below it, for otherwise the contemporary wares are either ornamented on and above the shoulder, or else the entire vessel is decorated. The moulded ring round the base of the neck counterbalances the rolled rim. The only other example of moulded ring at the base of the neck is found on Fig. 82, a jar remarkable for its narrow neck and equally narrow base. The collared rim also calls for special mention.

Fig. 83 represents a unique storage jar of greenish grey ware, with its elliptical body and carinated ring base, the diameter of the base balancing that of the rim. The horizontal incised lines are to become a common decorative motive on the storage jars from the next stratum.

Varia. The only ring stand from Str. *VII* is illustrated as No. 195. It is made of red ware, and its very thin sides, small size and unusual shape combine to render this piece unique at Gawra. It is wheelmade, save for the base which was fashioned by hand.

Fig. 207 may be a stopper. Fig. 214 shows the only ladle found in this stratum; it exhibits a refinement unknown to the potters of Str. *VIII*. Attached to one side of the inner wall is a ferrule-shaped addition extending from the center of the base to the rim, roughly parallel with the side of the bowl. The space between them was doubtless intended for a wooden handle, as may be gathered from the two holes aligned to take the cotter pin.

The last specimen from this stratum is a curious elongated object shaped like a phallus (Fig. 204 = Pl. XXVIII. *a*. 3). Its dimensions are 690 by 143 mm. It is made of grey ware, well baked, and burnished. The knobbed carinated head is pierced at the top by a hole 13 mm. in diameter, and there is a moulded incised ring round the neck. The inner surface is irregularly rippled. The object was manifestly employed for cult purposes, but its precise use is subject to speculation.

d. Stratum VI (Figs. 84-146; 196, 198, 202-03, 206, 208, 213, 215, 218)

Str. *VI* presents a larger number of well defined classes and types of pottery than any other level at Gawra. It is significant that the very forms which occur most frequently belong, with few exceptions, to new types that have little in common with the material of the strata below. A single feature might duplicate one known from the lower

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levels, but the outstanding characteristics of the new shapes in their present combinations are now encountered for the first time. This furnishes independent evidence to the effect that Gawra *VI* was settled by newcomers with a pottery tradition as distinct if not as colorful as that of the newcomers in Str. *VIII-A*.

Of the new detailed features we may single out for the present narrow necks, a marked predominance of flat bases, and the presence of handles (cf. Figs. 127-128, and Pl. LXXVI. 4). Carination has disappeared completely, except on bowls. The outstanding type is a pot globular in shape, but with flat, disc, or ring base, wide neck with delicate rim, and a rich assortment of designs incised on the shoulder, all features that are not associated with the globular pots hitherto discussed. Storage jars become frequent, while spouted jars and chalices have vanished. Very noticeable is the all but total absence of painted decoration.

As regards technical details, the pottery of Str. *VI* is almost entirely wheelmade, save for isolated specimens of intricate shape. The characteristic ware is greenish grey, but light and dark grey, grey with a blue and purple tint, and light green are also found. Buff is comparatively rare, in contrast with the preceding levels, but the few extant specimens of this fabric cover a wide range from yellowish to reddish buff. Scattered examples of deep red ware are included among the extensive ceramic finds of this period, while brown predominates in the few handmade vessels.

The firing is greatly improved over that of the preceding occupations, an indirect indication of the developed technique acquired through the casting of copper objects. The clay is generally finely levigated. The nearly vitrified bluish grey pottery of Str. *VII* is found in increased quantities. An analysis of one vitrified specimen of dark grey ware disclosed a firing temperature of 2350° Fahrenheit. Many other pieces, particularly bowls, must have been fired at temperatures exceeding 2000° Fahrenheit.

The surface is almost invariably wet-smoothed, the work showing greater care than had been the case thus far. Slips are fairly common; they occur in cream, buff, red, reddish brown, and light green. Of outstanding importance is the occurrence of several types of the so-called "reserved slip" ware. This curious technique whereby a coating is wiped off in part to expose the body clay, or underlying primary slip, is associated in our settlement with the nearly vitrified or vitrified

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fabrics and, to judge from the complete specimens, seems to be confined to bowls and to a few pots. The following variations are found: A cream slip is broken up, exposing dark grey body clay in spirals radiating from the base (was this done on the wheel?) on the inside, and in horizontal bands on the outside (Fig. 96 and Pl. XXVII. *a*. 5). Or else a greenish slip is wiped off to reveal red body clay in horizontal and vertical bands on the inside and horizontal bands only on the outside. Horizontal bands alone are found on vessels of dark grey ware with cream slip. Particularly curious is what one might call the " composite reserved slip " technique: the body clay is dark grey and over it is applied a coating (underslip) in light red; the secondary coating is of a cream color, and the pattern is restricted to horizontal bands both inside and outside; occasionally the ware is buff, the underslip yellow, and the secondary coating red (Figs. 91, 113).

It may be noted in passing that the reserved slip technique is not found at Gawra prior to Str. *VI*, nor does it occur thereafter. Elsewhere this method is encountered in Jemdet Nasr times.[a]

The decoration is almost always incised; painting is absent except for two examples where crude black dots are placed around the neck and shoulder (Figs. 118, 134). The incised designs are confined to the shoulders as a rule. Straight lines predominate, but triangles, herringbones, interlocking zigzags, and combed patterns are not infrequent (cf. Pl. LXXVI. 6). Modelling in the round occurs only in cases of serpents as described in Str. *VII*, ram's head spouts, and the birds on the " fountain-head " pot (Fig. 138). Burnishing is usually vertical and high polishes are often obtained. Some bowls are polished both inside and outside.

Bowls and Strainers (Figs. 84-103). The bowls of Str. *VI* show a wide variety of types. The most common form is that with carinated shoulder, disc base, and plain everted rim (Fig. 96). Carination is featured also on the second most frequent type, a deeper bowl with disc base and rolled rim (Fig. 89 = Pl. XXVII. *a*. 7). Both types have been noted in Str. *VII*.

The deep round-shouldered bowl with rolled rim and flat base (Fig. 92 = Pl. XXVII. *a*. 4) is known from only two examples. Shallower variants of the round-shouldered bowl, one with a wide rolled rim (Fig. 90) and another with ring base (Fig. 93), are isolated occur-

[a] See below, p. 159.

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rences. Fairly frequent is the bowl with shoulder less pronounced, but with disc base and rolled rim (Fig. 85). Of the squat, flat-based bowl with more complicated overhanging rim (Fig. 88) we have but a single example.

The low-shouldered bowl is less frequent; from a sharp shoulder it tapers gently to a plain rim (Figs. 84, 86). The ring base is a constant feature. A variation of this type, with higher and more rounded shoulder and concave disc base, is illustrated by a single example (Fig. 87).

Rarer still is the type with sharp carination and indented base, as represented by Figs. 94 and 95; the disc base of the latter is offset from the body.

To turn now to round-based bowls, we find many examples of the squat type with rolled rim (Fig. 98). Not infrequent is the shallow bowl with sharply incurved rim (Fig. 99), known already from Str. *VII*. Fig. 102 is a single specimen with grooved rim, reminiscent of Fig. 21 (Str. *VIII*), where, however, the groove is set at a different angle. Of the carinated round-based bowl with beveled rim also carinated (Fig. 103) we have two examples.

Figs. 91 and 101 are both unique. The former has the double-curved body as noted in the two preceding levels. Here, however, the extremely accentuated shoulder under a rolled rim and the rippled inner surface combine to place the piece in a class by itself. It is made of yellowish buff ware and finished with an under slip in yellow and a secondary slip in red exposing irregular bands, and fired to the point of vitrification. Fig 101 also has a double-curved body and sharp carination, but the base is gracefully pointed. The ware is greenish grey, nearly vitrified.

Strainers were common in this occupation. Ordinarily of greenish grey ware, rather coarse, they fall into two types: one with plain incurved rim (Fig. 100), and the other with rolled rim curling inward (Fig. 97). The sizes vary considerably.

Cups (Figs. 104-05). The cups of Str. *VI* belong to one main type which occurs also in the preceding level. It may be divided into two subtypes, one with slightly rounded sides and rolled rim (Fig. 104), and the other with straight sides and noticeably rounded base (Fig. 105). The inner surface of the former variety is always plain, that of the latter frequently broken with irregular ripples.

Pots (Figs. 106-21). The class of vessels most typical of the pres-

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ent stratum consists of globular jars. Since in this group height and diameter closely approximate each other, the term "pot" may be applied. Several types may be distinguished. With but one exception (Fig. 120), all are characterized by a flat base. Another characteristic is a wide mouth. Grey and greenish grey wares are still predominant, but buff fabrics are better represented than they are in any other group of this period. The nearly vitrified ware is found. Most of the pots are made of unusually well levigated clay. On the smaller jars slips are occasionally present, although most specimens are wet-smoothed, but never burnished. The walls are often of extreme thinness.

The commonest individual type, and incidentally the simplest, is represented by a pot with plain flat base and outsplayed rim (Fig. 111), although the rolled rim is normal for the class as a whole. Fig. 112 exemplifies the commonest rolled-rim type.

In addition to flat bases (Fig. 112), we find the convex disc base (Fig. 107) and the ring base (Fig. 109). The offset base appears to accompany the type with sloping shoulders and low body bulge (Fig. 106). In Fig. 114 these characteristics are more accentuated. The squatter type with disc base and carinated rim (Fig. 113) is known from two specimens, one of hard greenish grey ware, and the other of buff ware with a yellow cream primary slip and a secondary slip in red wiped off to expose horizontal bands. Fig. 108 is a unique specimen of bluish grey ware with reddish brown slip, fired almost to the point of vitrification. There are two types with longer necks, one with leveled rim and ring base (Fig. 115), the other with rolled rim and disc base (Fig. 116). The larger pots have flat bases and rolled rims (Fig. 119), or ring bases and wide collared rims (Figs. 121, 141). One small pot also displays a collared rim (No. 117).

Decoration is always confined to the shoulders and consists as a rule of horizontal straight line incisions. Two kinds of herringbones are known (Figs. 106, 107); but these patterns are not always associated with the same types. In one instance crude dots in black paint are applied irregularly round the neck (Fig. 118). In Fig. 117 we have an isolated specimen with plain moulding round the shoulder. Both this piece and Fig. 120 have perforations at the center of the base.

Two exceptional pieces require special mention. Fig. 110 departs from the general norm by reason of its narrow neck. Fig. 120 has a wide mouth, but the round base is unparalleled in this class. The double rim is also a noteworthy feature.

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Small Jars (Figs. 122-37). The commonest type of this class is characterized by a squat globular body, narrow neck, and everted rim (Fig. 125). It is one of the new types appearing in this stratum and is marked by a series of variations. A single specimen shows the body bulge flattened and the sides of the base formed in a double curve (Fig. 126). There may be two handles on the shoulder pierced horizontally (Fig. 127), or vertically (Fig. 128 = Pl. XXVII. *a*. 2).

Two other round-based types occur; in both of them the bases taper almost to a point. The first has a high sharp shoulder and constricted neck flaring to a narrow-collared rim (Fig. 129). The second type is more unusual in general form. The short high-shouldered body is surmounted by a wide long neck that flares to a grooved collared rim, the diameter of which is greater than that of the body (Fig. 130 = Pl. XXVII. *a*. 3).

The commonest flat-based type has ovoid or globular bodies and long narrow necks. Collared rims are typical. A popular feature is the high shoulder from which the body tapers sharply to a small, flat base (Fig. 133). Frequent is also the sloping shoulder associated with a markedly ovoid body (Fig. 132). Fig. 134 has a high shoulder and the same kind of grooved rim as Fig. 130. Globular bodies (Fig. 131 = Pl. XXVII. *a*. 1) are less common.

Ornamentation is generally confined to one or more lines incised on the shoulder, but in one instance eight filled incised triangles decorate the shoulder, topped by black painted dots at the base of the neck (Fig. 134). A somewhat larger jar (Fig. 136) with wider neck may be fitted into this general division.

Of the isolated specimens we may mention one with high shoulders and short neck (Fig. 135), and another one with a more globular body, longer neck, ledge rim, and ring base (Fig. 137).

Fig. 122 is a vessel of unusual form. It is equipped with two pairs of holes placed under the rim and on opposite sides, evidently for suspension.

There are two vessels that were originally joined to others by bridges formed in one case by a projection from the rim (Fig. 123), and in the other by a wider projection from the body (Fig. 124). The former is decorated with stamped circles on the rim and bridge.

Large Jars (Figs. 139-46). The storage jar is very common in this stratum as contrasted with the preceding levels. Usually made of green or greenish grey ware, these vessels conform to one general type with

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oval body, high rounded shoulder, short and narrow neck, and collared or rolled rim. With one exception (Fig. 145), the bases are only slightly rounded. The most common form of decoration is the combed pattern on the shoulder, bordered by straight lines (Figs. 144-46). Straight incised lines are also used (Fig. 142). No 139 is a single instance of a large globular jar with extremely narrow neck.

Two unique pieces must be singled out. Fig. 140, made of brown ware and finished with reddish slip, has an overhanging rim and constricted neck with an inner ledge. Strikingly enough, it is equipped with two handles placed side by side, which are balanced on the opposite side by two false spouts with a plain circular opening between them. Fig. 143 is notable chiefly for its footed base and ribbed shoulder.

"Fountain-head" Pot (Fig. 138). This unique vessel was discovered during our first campaign at what was to prove later to be the northern corner of Square K 7, and perhaps the courtyard outside R. 674.[8] Made of buff ware, well fired, the pot measures 340 mm. in height and 345 mm. in diameter. The base is flat and the sides are slightly rounded. The neck curves in slightly, but the shoulder continues independently to an added height of 35 mm. The neck and the extension of the shoulder form thus a deep and sharply tapered groove. The neck is surmounted by a tubular rim, above which is attached at one side a low bowl opening funnel-wise into the rim. The water poured in through that bowl spreads inside the rim to emerge through the wide-opened mouth of a well-shaped ram's head, which faces the bowl-funnel. Midway between the rim and the base of the groove eight ducks in the round are attached side-wise to the neck. After the stream that spurts out from the ram's mouth has filled the vessel, the water overflows and is caught in the groove, while the ducks appear bathing under the little fall. Directly under the funnel the groove widens into a simple spout through which the water finally flows out. Both the arrangement and the shape of this unusual piece suggest a prototype of stone, or perhaps of copper.

Varia. Pot stands are fairly numerous in this stratum. Made of buff or greenish grey ware, they fall into two types. In one, which is the more common one, height and diameter approximate each other (Fig. 198). The sides are slightly concave, with one rim rolled. The

[8] Unfortunately, there is some doubt as to the exact level. The trial trench record, which is otherwise so unambiguous, leaves in this single instance a possible choice between Str. *VI* and Str. *V*; cf. *AASOR*. IX. Fig. 5-L 3. [E. A. S.]

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other type is broad and short, with deep concave sides and both rims rolled (Fig. 196). Three objects from this level, which were found side by side (Square 06), might at first glance be mistaken for pot stands. Upon closer examination, however, they turn out to be cult objects. One of these (Fig. 202 = Pl. XXVIII. *a*. 1; *ibid*. *b*. 4) is of grey ware; four triangular openings are evenly spaced round the sides, below a moulded ridge decorated with an incised pattern. The second one (Fig. 203 = Pl. XXVIII. *a*. 2; *ibid*. *b*. 3) is not unlike the first in general appearance, but differs from it in important details. It has a flat base, now broken off, which extended originally far beyond the sides. The sides expand to a plain rim. Just above the base we find eight holes disposed around the sides. The third one (Fig. 218) is virtually twice as wide as the other two. It has only one rounded hole and is made of greenish grey ware.

A vessel of peculiar shape is represented by Fig. 213. It is made of grey ware and its bottom had been repaired with bitumen. The rim is broken off. Two fragmentary projections on the shoulder are probably the remains of some sort of handle.

Fig. 215 shows a small and crude offering tray, probably a model, made of brown ware. It is rectangular in form and has a small ledge handle, vertically pierced projecting from one side.

Two elaborately decorated lids, the first examples of this class from Gawra, were unearthed in this level. The first one (Fig. 206) is hemispherical in shape and equipped with a disc handle. It is made of green ware, well fired, and is decorated with a composite incised design. The other specimen (Fig. 208) is of the flat type, with knob handle. Three moulded serpents are applied irregularly to the outer surface. The serpents bear circular incisions. The ware is reddish buff.

One curious anthropomorphic piece (Pl. LXXVI. 1) rounds out the material from this stratum. Shaped into a bowl with tripod base, it is made of buff ware fired at a medium temperature. In addition to the hands, the breasts, navel and pudendum are plainly indicated, the two latter by means of incisions and the others in appliqué work.

e. Stratum V (Figs. 147-61, 197, 199, 200, 219)

Contrasted with the abundant material from the preceding strata, the pottery remains of levels *V* to *I* are decidedly meager. Nothing else could be expected of course in view of the reduced occupational areas of these topmost strata. Where hitherto we have been able to

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subject to analysis definite types and subtypes, we shall have to deal from now on almost entirely with isolated specimens.

To take first Pl. LXXI (Figs. 147-61), only one of the fifteen figures which it contains is duplicated in this stratum. As regards relationship with other occupations, some of the vessels show connections with the earlier levels, particularly Str. *VI*, while in several instances we seem to have unique pieces regardless of level. Attention may be called in passing to the presence of parallel pieces in Billa *IV*; but scarcity of material prevents a detailed investigation of such connections.

If general statements are at all permissible under the present circumstances, it is in order to point out that the proportion of handmade vessels is larger in Str. *V* than in any other Gawra occupation discussed in this book. The firing is lower than in Str. *VI* and no piece approaches vitrification. The surface was generally wet-smoothed; only one specimen shows a slip, of light green color (Fig. 155). Both incised and painted decorations are found occasionally, in addition to the moulded technique as exemplified in the serpent motive; such serpents in relief are found not only on the rim of a bowl (Fig. 149), but also on several fragments of large jars (cf. Pl. LXXVI. 12). Ribbing is applied in two instances (Figs. 147 and 160).

Figs. 147 exemplifies a ribbing technique which goes back as far as Str. *VIII*; but this precise form is not found elsewhere. Fig. 148 is handmade and its vertical stripes are painted in red. The shape of Fig. 149 recalls a type common in Str. *VI;* the snake decoration has been noted in the two preceding layers, but is applied in the present instance to a different type of vessel.

Though the cup illustrated as Fig. 150 is of simple shape, no other similar specimen has been found at Gawra. Fig. 151, on the other hand, was paralleled in Str. *VI*, except as to base (cf. Fig. 105).

Figs. 152 and 156 again hark back to the preceding level. The general form with high shoulder and tall neck is certainly repeated, though in the present instances the rims are plainer, while the concave base was not associated with this type in Str. *VI*. Fig. 154 is to all intents and purposes identical with the type represented by No. 125. Nos. 153 and 155 are confined to the present level, but they are paralleled in Billa *IV*. Fig. 157 has the same high shoulder and general form of body as Fig. 67 (Str. *VII*). Here, however, the resemblance ceases. The design, consisting of lined and cross-hatched triangles flanked by bands, is done in black paint. The oval body and narrow neck observed on Fig. 158

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