

## THE RELEVANCE OF THE DIYALA SEQUENCE TO SOUTH MESOPOTAMIAN SITES

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THE Chicago Oriental Institute excavations in the Diyala region have contributed much to our knowledge of the latter part of the Uruk period (including the Jamdat Nasr phase) as well as to more than six later stages of Mesopotamian history. The ceramic material of these periods has been thoroughly presented in Delougaz's long and valuable publication, *Pottery from the Diyala Region*. Some early and middle Uruk sherds were found, but not in their proper stratigraphical context; the earliest pottery excavated *in situ* dates from phases 'c' and 'd' of what Delougaz calls the 'Protoliterate Period',<sup>1</sup> and these are equivalent to the late Uruk or Jamdat Nasr phase, which extends, in the E-anna sequence, from the end of Warka IV to the beginning of Warka II. This material comes from three sites: Tell Asmar, Tell Agrab, and Khafajah. At the two former sites deep soundings driven to virgin soil produced sherds of Protoliterate 'd', but the stratigraphical value of these soundings is limited, as the floor-levels could not be distinguished and the sequence had therefore to be determined by depth. Protoliterate 'd' material also came from in and under the earliest Abu Temple at Tell Asmar. Khafajah, however, produced much well-stratified material, especially from the Sin Temple; this was founded on debris of Protoliterate 'c' during the same phase, and continuously repaired and rebuilt at least until ED III b. The long sequence based on the Sin Temple stratification is particularly important, as the pottery of Protoliterate 'c' and 'd' is rather poorly represented at the type-site of Warka itself, and is fortunately amplified by reference to the Diyala material. Similarly, pottery from other sites, where the excavators did not at the time have enough comparative information to date their finds precisely, can also be fitted into the Diyala sequence. Moreover it is possible to observe in the Diyala, better than anywhere else, the development from the end of the Jamdat Nasr phase into ED I; here there is a clear continuity, just as between 'Ubaid and Uruk previously. While, however, the Diyala sequence is of great significance in these respects, it should not necessarily be accepted as always valid for all of southern Mesopotamia. Geographically the region is peripheral, close to Babylonia, but distant from the area of Sumer which seems in many instances to have been the centre of cultural diffusion in the Uruk period. Local peculiarities are naturally to be

<sup>1</sup> OIP 63; pp. 27 ff. This lists the areas in which 'Protoliterate' material was found. Cf. also OIP 58, p. 8, n. 10.

expected, so that where the Diyala evidence seems not merely to supplement, but positively to contradict, the stratified sequences at other sites, it should be treated with much circumspection.

The clearest contribution made by the Diyala excavations to our understanding of the general Uruk sequence in Mesopotamia is concerned with the painted 'Jamdat Nasr' pottery. At Jamdat Nasr itself, where polychrome was first found in quantity, no internal developments were observed, and at other sites where it has appeared such as Ur, Warka, Nippur, and 'Uqair, it has not been sufficiently abundant for the relative dating of the different examples to be ascertained. In the Diyala, however, two successive varieties of polychrome were identified, of Protoliterate 'c' and 'd' respectively;<sup>2</sup> this succession is probably valid for other sites also, as, though both varieties were found at Jamdat Nasr,<sup>3</sup> the 'Uqair polychrome is all of the later variety.<sup>4</sup> The later variety is represented in Warka III/II.<sup>5</sup> The absence of polychrome in Warka IV may be used to argue that Woolley was right in assigning to the polychrome wares an origin outside Sumer and that they were introduced into Sumer from northern Babylonia, but the evidence is not conclusive; the published polychrome sherds from Warka are not on the whole distinctive, and several could be assigned to Delougaz's earlier variety as well as to the later.<sup>6</sup> One reason for the scarcity of polychrome at Warka may be that this kind of decoration, though indeed the most notable feature of the Jamdat Nasr phase of the Uruk period, was principally used on the shoulders but not the bodies of large, and hence easily broken, jars; body fragments might not be identified as having belonged to originally polychrome vessels. The actual shapes of these jars may be reconstructed by reference either to the stratified Diyala material or to complete examples from other sites.<sup>7</sup> It is unfortunate that the isolated find of some complete large jars<sup>8</sup> at Warka itself, in the Riemchengebäude of Warka IVa or a little earlier is not helpful, as they represent a class of coarse pottery which is not typical of that generally found and which was not elaborately decorated.

The inadequacy of the E-anna sequence for Warka IV-II is clearly shown on Plate XLVI, Chart I of this article, and the comparative wealth of other sites on Chart II (Plate XLVII). For the amplification of this sequence, reliance should be placed above all on sites near Warka itself, and of these Ur is much the richest. It seems likely that almost all the types found at Ur in the 'Jamdat Nasr' graves (discussed below) would be found at Warka if a sufficient area were cleared. The deep sounding at Nippur was not extensive enough to give much support

<sup>2</sup> *OIP* 63; p. 126.

<sup>3</sup> Mackay: 1931; pl. LXXIX, nos. 2 and 3 resemble *OIP* 63, pl. 18 c and d, and belong to the first variety, and Mackay's pl. LXXVI, nos. 1 and 3, are typical of the second variety as shown by *OIP* LXIII, pls. 33-36.

<sup>4</sup> *JNES* 2, pl. XXVI; these pots, which were found in one group, all belong to the second variety, as shown by *OIP* 63, pls. 33-36.

<sup>5</sup> *UVB* 4, pl. 20Cp and pl. 21d; the hourglass ornament in the former is typical of the later variety, and so are the vertical zigzags on the latter.

<sup>6</sup> e.g. *UVB* 4, pl. 21 a, b, and c.

<sup>7</sup> Thus *UVB* 4, pl. 21 d, may well have belonged to a squat jar with pronounced shoulders like those on *OIP* 63, pl. 35.

<sup>8</sup> *UVB* 14, pls. 41 and 48-50.

to this view, and the Jamdat Nasr material is of course not datable except by reference to the Diyala; but the stratified Protoliterate types from the Diyala are in fact close enough to those from Ur to make it virtually certain that those of them which existed both in the Diyala and at Ur must also have been in use at Warka. The especial contribution of the Diyala to the Warka sequence is more in the field of zoomorphic and multiple-spouted vessels, which were probably made for ritual purposes. The existence of the former at Warka is ensured by their appearance on the Warka Vase,<sup>9</sup> but no recognisable pottery fragments of them have been found there. Zoomorphic pots were, however, found in Sin Temple III-V at Khafajah, and the earliest of these was noted by Delougaz as being 'extra-ordinarily like' one shown on a Warka seal.<sup>10</sup> Even if the zoomorphic vases shown in the stone carvings were visualised by the artists as consisting of some more precious material than pottery,<sup>11</sup> it seems probable that pottery vases of this nature also existed in Warka IV-II. A multiple-spouted jar found in Sin Temple IV at Khafajah is of equal value. Such jars have also been found, with definite stratigraphical context, at Telloh, Nippur, and Jamdat Nasr;<sup>12</sup> the type may well have had a longer history than is demonstrable at present, but the Diyala example enables us to place it, at the very least, in Protoliterate 'd'.

While polychrome and ritual vessels are found throughout south Mesopotamia in contexts that appear to conform with the Diyala evidence, there are also some instances in which the Diyala pottery is recognised as atypical. Scarlet ware, for example, the ED I continuation of polychrome Jamdat Nasr, is well-known in the Diyala, but has been seldom identified outside this region: a few sherds were found at Kish, to the south, and others are recorded from surface collection at Tell Ahmad el Hatu near Kupri, half way between Kirkuk and Erbil.<sup>13</sup> This limited distribution suggests that its centre of diffusion may have been the Diyala, and its complete absence at Warka and other sites in Sumer may mean that it did not penetrate far beyond the Diyala to the south. In the Uruk period itself, however, the local peculiarities of the Diyala consist mainly in the absence or rarity of certain types in that region, or their late introduction into it; these features are not easily provable as they can always be attributed to the chance of excavation, but three instances may be noted. It was observed by Delougaz that handles were rather rare in the Diyala,<sup>14</sup> but it is particularly striking that handled-cups (Chart II, type 8) were not found at all; elsewhere this useful type was popular. It is known in Warka IX-VI, and its absence in subsequent levels at that site is clearly fortuitous, as it is found at Telloh 'D' (late Uruk), at Ur in both early and late Uruk contexts, at Nippur

<sup>9</sup> E. Heinrich, *Kleinfunde aus den archaischen Tempelschichten in Uruk*, 1936, pls. 2, 3, and 38.

<sup>10</sup> OIP 63, p. 43.

<sup>11</sup> An alabaster vase in the shape of a bird was found in the white Temple at Warka; cf. UVB 3, pl. 18a.

<sup>12</sup> Telloh I, pl. III, no. 5481; Mackay: 1931, pl. LXXXVI, fig. 3.

<sup>13</sup> *Iraq* 28, p. 50; *Chronologies in Old World Archaeology*, 1965, p. 209, mentions a few sherds from Nippur which might be scarlet ware.

<sup>14</sup> OIP 63, p. 38.

XX–XIII (i.e. until Warka IIIb), at Jamdat Nasr, and of course in the north (Plate XLVII, Chart III, type 16). There is also a type of jar-stand or lid which Delougaz noted as rare in the Diyala, though it was common at Jamdat Nasr and Kish.<sup>15</sup> A type that may have been introduced late into the Diyala is the squat four-lugged jar (chart II, type 22) as no sherds of this type were identified among the many found in the debris below Sin Temple I; elsewhere, however, such jars are frequent. These peculiarities are exceptional; but there are other features of the Diyala sequence which, though they suit the evidence from Babylonian sites such as Jamdat Nasr, Kish, and ‘Uqair—‘the pottery assemblages of the Protoliterate period which coincide best with the Diyala’<sup>16</sup>—appear to contradict the stratified sequence at sites like Ur and Uruk further south still. In particular the solid-footed goblet (chart II, type 20) and some pottery from the Jamdat Nasr cemetery at Ur are re-dated by Delougaz to the ED I period because comparable shapes were not found in Protoliterate levels in the Diyala or Babylonia.<sup>17</sup> In reaching this conclusion, however, Delougaz does not seem to have taken sufficient account of the possibility that certain types originated in Sumer and spread north gradually, so that they would naturally occur relatively late in the Diyala. Their absence from the Protoliterate levels in the north of southern Mesopotamia may then be regarded, from the point of view of the type-site, as no more than local peculiarity of that region. This in fact appears to be the case.

Delougaz himself, in discussing the solid-footed goblet, says that ‘although comparatively short-lived the type was widespread’ and that ‘consequently it must have spread from a single centre, and a certain length of time must be allowed for such a process’.<sup>18</sup> Despite this latter observation, however, with which the present writer entirely agrees, Delougaz appears to have regarded the presence of solid-footed goblets in Warka IV-II as evidence not for the southern origin of the type but for the disturbance of these strata by later settlers. He refers for support to two other sherds from these levels.<sup>19</sup> One is a pot-cover found in Warka III/II; but this, though it does resemble later examples found elsewhere, is a rare type of questionable diagnostic value. The other is a fragment of a four-lugged incised jar found in Warka IV, unusual in itself but far from characteristically ED I: the profile of its shoulder, rounded and without a ridge, and the position of the lugs at some distance from the neck, are both Protoliterate features. Delougaz also considers that the solid-footed goblets found at Ur, ‘Ubaid, and Telloh are indicative of ED I occupation, even though, at least at Ur, they were directly associated in their stratigraphical context with a number of polychrome Jamdat Nasr sherds.<sup>20</sup> If, however, we begin by accepting the sequence established at Warka and Ur, considering the way in which the type became popular, it will be seen to have

<sup>15</sup> *Ibid.*, p. 39.

<sup>16</sup> *Ibid.*, p. 128.

<sup>17</sup> *Ibid.*, pp. 56 and 138.

<sup>18</sup> *Ibid.*, p. 56 f.

<sup>19</sup> *Ibid.*, p. 138, referring to UVB 4, pl. 20 Al’and Bd.’

<sup>20</sup> *UE*, p. 27.

a coherent history which is compatible with all the different contexts in which it has been found.

At Warka there is a clear relationship between the solid-footed goblet and the 'flower-pot';<sup>21</sup> so many varieties of intermediate shapes are found that no strict typological division can be made between them. There is, however, a chronological development. The more open 'flower-pot' (chart II, type 7) first appears in Warka VIII, and continues through to Warka II; it is a shallow, sinuous-sided vessel which could have been used either as a container or as a cup. But between Warka VI and IV there occur a number of increasingly deep examples of the 'flower-pot' (chart II, type 6), and these gradually merge into the solid-footed goblet (chart II, type 20); this is definitely present by Warka IV,<sup>22</sup> and again continues into Warka II. The relative commonness of the two extremes of type in the period when they were contemporary cannot be ascertained precisely, but it would seem that the more deep and slender solid-footed vessel evolved for the simple reason that it was a more convenient shape for drinking from and handling; the more open 'flower-pot', which had originally served this function also, survived because it was more practical as a container and could be rested on a level surface. This sequence of development at Warka, which has recently been confirmed by Dr. Hans J. Nissen (of the German Archaeological Institute, Baghdad), in a new sounding,<sup>23</sup> conforms with the dating ascribed by Woolley and Hall to the solid-footed goblets found by them in graves and houses at Ur and 'Ubaid.<sup>24</sup> At both sites the goblet was introduced later than the 'flower-pot', and the two types continued in use side by side; at Ur the goblet was found in the 'late group' of Jamdat Nasr graves (see below), and in Building-stratum G of Pit F, where not only was one example plum-red all over but there were also several associated plain and polychrome Jamdat Nasr sherds though not as many as at slightly lower levels in the pit.<sup>25</sup> At Telloh the 'flower-pot' was found in levels 'E-F' and the goblet in levels 'F-I', all of the Uruk period.<sup>26</sup> Ur, 'Ubaid, and Telloh have all produced varieties of 'flower-pot' though the type's connection with the solid-footed goblet is not so clear as at Warka. At Nippur the two types are more sharply differentiated.<sup>27</sup> A rather deep 'flower-pot', usable both as a container and a cup, was found in Inanna XVI and XV and again in XII which is a transitional Jamdat Nasr-ED I level; the solid-footed goblet first appears in XII, and becomes common in ED I; ED I levels also produce a shallow open vessel with a flat base. It would seem that these two last-named types were introduced at Nippur at the very end of the Jamdat Nasr phase and that each acquired one of the functions of the deep 'flower-pot' which consequently

<sup>21</sup> *UVB* 4, pls. 18 C-20 C, *passim*.

<sup>22</sup> *UVB* 4, pl. 18 Cn, represents a possible example of this type in E-anna VIII, and this has been included on chart II; it is however extremely doubtful.

<sup>23</sup> Unpublished; personal communication.

<sup>24</sup> *UE* 1, p. 186 and pl. LV; *UE* 4, p. 150 f. and pl. 56.

<sup>25</sup> *UE* 4, pp. 62-64.

<sup>26</sup> *Telloh* 1, pl. VIII.

<sup>27</sup> *Chronologies in Old World Archaeology*, 1965; pp. 205-209.

dropped out of use. Further north still, in Babylonia and the Diyala, precisely the same process occurred but at a slightly later date, at the beginning of ED I proper;<sup>28</sup> this was the limit of the solid-footed goblet's expansion, and it is lacking in northern Mesopotamia. The most satisfactory explanation for the goblet's apparently contradictory appearances at different dates in different regions seem therefore to be that it evolved from the 'flower-pot' in Sumer in the Jamdat Nasr phase, and spread north gradually during the transition to ED I; it came to the Diyala as an innovation, and appropriated the deep 'flower-pot's' function as a drinking vessel; the 'flower-pot' however survived as a shallower container. This explanation agrees with Delougaz's suggestion that the type had a definite centre of diffusion, but not with his conclusion that its date of origin is clarified by the Diyala evidence; here the Diyala sequence is only relevant over a limited area.

The Diyala evidence has also been used by Delougaz in an attempt to re-date some of the graves found by Woolley at Ur and ascribed by him to the Jamdat Nasr phase; but here again caution is necessary, and the conclusions of the original excavator seem preferable. Woolley's final publication in which the graves are organised, basically on stratigraphic grounds, into early, intermediate, and late groups,<sup>29</sup> was not available to Delougaz; but the latter, referring to a preliminary report, assigns some of them 'undoubtedly' to the ED I period because they include types found in ED I contexts in the Diyala.<sup>30</sup> One type cited is the single-lugged jar, which is found neither at Warka nor at Nippur in Jamdat Nasr levels nor at Jamdat Nasr itself; in the Diyala the type is predominantly ED I. Nevertheless even the Diyala has produced one example from Protoliterate 'd' (Sin Temple IV) which Delougaz accepts as *in situ*,<sup>31</sup> so that the type was certainly known at this time. Moreover the single-lugged jars found at Ur were in graves of both early and late groups, and directly associated with types which are clearly more akin to Jamdat Nasr than to ED I.<sup>32</sup> Delougaz also mentions a spouted jar comparable with ED I examples in the Diyala; but the spouted jar is the very type which Delougaz rightly employs to demonstrate continuity between the Jamdat Nasr phase and ED I.<sup>33</sup> The difference between Delougaz and Woolley is perhaps more a matter of definition than of strong disagreement about dating; but while the point at which Delougaz chooses to end his Protoliterate period appears to the writer reasonable for the Diyala, it cannot be transferred to Ur on the assumption that the pottery there was identical. The transition between Jamdat Nasr and ED I was gradual and smooth, and types naturally persisted from one period to the next, or spread gradually from one area to another. The danger of

<sup>28</sup> OIP 63, pp. 34, 56 and 58.

<sup>29</sup> UE 4, p. 24 f.

<sup>30</sup> OIP 63, p. 138.

<sup>31</sup> *Ibid.*, p. 42 and pl. 23, 1.

<sup>32</sup> Associated types include Ur JN types 4, 31, 32, 38, 39, 46, 81, 87, 111, and 146; cf. the list of graves in UE 4, pp. 104-126. Single-lugged jars are JN types 100 and 103-105.

<sup>33</sup> OIP 63, p. 135 f.

generalising from the Diyala evidence is demonstrated especially well by considering the remarks of Delougaz on p. 137, n. 56, of *Pottery from the Diyala Region*; these are concerned with some pots which came from the Jamdat Nasr graves, and which were described by Woolley as 'Uruk'.<sup>34</sup>

The ware of these pots does bear some resemblance to earlier Uruk, and Woolley in fact always made it clear that his 'Uruk pottery continues in use long after the "Uruk" period had come to an end'.<sup>35</sup> Nonetheless the choice of name was perhaps unfortunate. Among the examples illustrated on *UE IV*, pl. 25, are JNG/328 Type 38, the slip of which, instead of being thin and matt-burnished like the traditional Uruk, is thick and extremely lustrous, a black equivalent of the Jamdat Nasr red-washed ware; U.19981, with red colouring of common Jamdat Nasr standard; and U.19985, a grey-burnished ware with an exceptionally hard fabric, reminiscent of the stone vessels which pots of this shape imitate and not found in traditional Uruk. Delougaz, in bringing the Diyala evidence to bear on pots of this nature, correctly observes that they are to be dated by their shapes rather than their ware, as the grey variety in particular persists, in the Diyala, into ED I or even ED II. He therefore dates the first two numbered above to 'the end of the Protoliterate period', and this appears approximately correct; Woolley himself assigns grave 328 in which the former was found to the intermediate group of Jamdat Nasr graves, and grave 317 which produced the latter to the early group.<sup>36</sup> With the latter, however, in the very same grave 317, was also found U.19980, and this is assigned by Delougaz as 'probably of ED I or possibly even of ED II date'. The parallels cited by Delougaz on his pl. 66 are not entirely valid, as the ridge on the shoulder of U.19980 is nearer the neck than on the Diyala examples, but his impression, based on a deep familiarity with the Diyala evidence, that of two pots in a single grave at Ur one was Jamdat Nasr and the other ED I or even ED II suggests that the Diyala evidence can be seriously misleading if used too freely. Similarly the stone-imitation bowls U.19985 and another are given, on the basis of Diyala parallels, to ED I; this accords with the evidence from Kish and Nippur, and such vessels are not found at Warka.<sup>37</sup> The graves in which they were found were assigned by Woolley to the late group; but the pottery from this group is still more Jamdat Nasr than ED I.<sup>38</sup> In grave 311 a stone-

<sup>34</sup> Delougaz's references are to pl. 10a-e of Woolley's *The Development of Sumerian Art*, but most of these pieces are also illustrated on pl. 25 of *UE 4*: *a* is U.19980, *b* is U.19981, *c* is JNG/328 type 38, and *d* resembles *e* which is U.19985.

<sup>35</sup> *UE 4*, p. 28.

<sup>36</sup> *Cf.* n. 33 above.

<sup>37</sup> *Chronologies in Old World Archaeology*, 1965, p. 209; stone vases of this shape were found in Telloh 'D'

and 'E', near the bottom of the sounding, but the stratification is unreliable (*Telloh 1*, pls. 4, nos. 2 and 3, and X, nos. 5203 and 5294).

<sup>38</sup> Two types, nos. 162 and 167, among the Jamdat Nasr pottery on pls. 56-64 of *UE 4*, were found, as the text on p. 154 makes clear, in Early Dynastic levels and should be dated to this period; but the remainder, though some of them continue into ED I, are attributable without difficulty to the end of the Jamdat Nasr phase.

imitation pot of this nature was directly associated with Ur type JN 38, which the Diyala parallels place in the Jamdat Nasr phase as well as ED I;<sup>39</sup> with JN 20, a 'flower-pot' rather deeper than would be characteristic of ED I and the closest Diyala parallel for which is B. 003.200b from Sin Temple II;<sup>40</sup> and with JN 137 which though it might be ED I has a bevelled rim nearer to Jamdat Nasr types. U.19551, another stone-imitation pot, was associated in grave 162 with JN 96 and 97, types which both have Jamdat Nasr lugs though the ridge on the latter is approaching ED I, and U.19985 was in grave 274 with JN 61, a type which though it could be ED I is still basically Jamdat Nasr. It seems to the present writer therefore that the graves should indeed be attributed to the Jamdat Nasr phase in its closing stages, when the pottery types are beginning to have some features which prevailed in ED I; indeed, by the present writer's definition of the Uruk period as including the Jamdat Nasr phase, the various wares found in the graves at Ur and considered by Woolley as Uruk survivals, are late Uruk after all.

In the above instances too great a reliance on the Diyala evidence could lead to conclusions which are not only misleading but even, as with the Ur grave 317, actually self-contradictory. This emphasises the danger of drawing rigid lines of demarcation between two stages in the evolution of what was essentially a single culture. Types which were first introduced in Sumer and whose expansion happened to coincide with the general transition from late Uruk (Jamdat Nasr or Protoliterate 'd') into ED I would naturally be found associated with the former period in Sumer and with the latter in the Diyala. The process of diffusion, however, though it limits the geographical area for which the pottery sequence established by the Oriental Institute may be considered valid, fully supports Delougaz's conclusions about continuity; without continuity the above differences of opinion would probably never have arisen. The other, more direct arguments for continuity in the Diyala are well discussed by Delougaz,<sup>41</sup> and the writer is in complete agreement with his views. The destruction of Jamdat Nasr buildings at some sites can be ascribed to political misfortunes or to chance, and the popularity of the plano-convex brick in the Early Dynastic period to a change in fashion or religious conventions; the pottery is not compatible with a wholesale change of population. The demonstration of this continuity is a most significant contribution of the Diyala excavations to Mesopotamian history. While the sequence which the Diyala has given us may eventually be superseded in some respects by the publication of the Nippur pottery, which may have less local peculiarities as the site is in the middle of the country, the Diyala sequence is at present our fullest reliable guide for the end of the Jamdat Nasr phase and its gradual transition into ED I, and as such it is, despite its limitations, invaluable.

<sup>39</sup> OIP 63, pls. 36e and 98n.

<sup>41</sup> *Ibid.*, p. 135 f.

<sup>40</sup> *Ibid.*, pl. 146.

Chart I Distribution of Uruk shapes at Warka (E-anna)

































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CHART I

