

THE RURAL LANDSCAPE OF THE ANCIENT ZOR : THE TERQA EVIDENCE

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The Joint Expedition to Terqa has expanded its operations to the level of a full-fledged regional project which encompasses, broadly speaking, the basin of the Khabur. The special characteristic of the project is that we conduct concurrent excavations at four sites in the region : Terqa and Qraya near the mouth of the Khabur, Ziyadah (or Zeidya), just below the confluence of the feeder branches which form the Khabur triangle, and Mozan near the headwaters of one of the feeder branches.

To the Directorate General of Antiquities and Museums in Syria, and especially to its Director, Dr. Afif Behnassi, goes our warm appreciation for the support he and his staff have consistently given to the progress of our work, especially on such a large scale.

The unique regional interest of the project lies in the fact that the four sites represent related but different cultures, which are conditioned in turn by related yet different geographical settings. Since work at Mozan was begun only recently, and work at Ziyadah is beginning this season, the full regional dimension of the project will only be implemented as we continue to carry out excavations each year at each of the four sites. The concurrent progress of the four excavations, conducted with uniform methodology, and based on direct sharing of first hand information, will allow an in-depth study of regional characteristics such as has seldom been done before.

In connection with this regional work, I have developed a special interest in geographical matters, deriving from the unique perspective I have been privileged to enjoy. This is based in particular on the triple familiarity with the landscape, the archaeology and the texts which, together, open remarkable new vistas on the world of ancient Syria. The

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paper I am presenting to this International Colloquium¹, so timely organized by the French Cultural Center of Damascus to which goes our gratitude, is one of a series of contributions which together shed new light, I believe, on a very significant geopolitical region of ancient Syria, which I call, as the ancients did, Khana.

Of the articles currently in press, the first one deals with what I assume to have been the role of salt procurement as a factor in the development of proto-literate sites in northern Syria. Noting how sites such as Qraya and Ramadi developed in regions ecologically quite at variance with the typical environment of proto-literate sites, I seek to explain the phenomenon as resulting from the need to obtain salt for large proto-literate settlements in the North such as Brak and Hamukar from the vast playas on the edge of the steppe (those of Buara due east of Qraya, and the Jabbul not far south of Habuba). By the same token, this interpretation explains a number of peculiarities which are associated with the bevelled rim bowls, and which go much beyond those which are already well known; one function of the bevelled rim bowls, I believe, was to serve in the final stage of the production of salt cakes, which were then shipped to the cities in the north.

The second article deals with the steppe and the role it played in the development of what I call "peasant-herders" or "agro-pastoralists". I interpret the evidence of the Mari texts as showing a special phenomenon of land reclamation, whereby the peasants of the *zor* were induced, by the very narrowness of the irrigated area available, to discover the potential of the steppe by tapping its water table through the systematic development of a network of wells. This allowed them to utilize fully the abundant ground cover of the steppe for their herds -- a phenomenon which corresponds in terms of cultural history to the development of irrigation in the river basins. Just as irrigation led to the development of a rural class which remained through time under the direct control of the urban elite, so the

1. The text of this paper follows closely that of my presentation at the 1987 Damascus symposium, and builds on material first presented at the 1986 meeting of the American oriental Society in New Haven. In its present form this is the third in a series of six articles currently in press or in preparation which deal with the history and geography of ancient Khana. The full sequence of articles are as follows:

- (1) "Salt at the Dawn of History: The Case of the Bevelled Rim Bowls" (to appear in a volume edited by M. Van Loon, P. Matthiae and H. Weiss);
- (2) " 'River Bank', 'High Country', and 'Pasture Land': The Growth of Nomadism on the Middle Euphrates and the Khabur" (to appear in M. Wäfler (ed.), *Khabur Symposium*, Bern);
- (3) "The Rural Landscape of the ancient Zor: The Terqa Evidence" (published here);
- (4) "The Kingdom and Period of Khana" (to appear in *BASOR*);
- (5) "The People of Terqa and Their Names" (in preparation);
- (6) "From Khana to Laqê: The End of Syro-Mesopotamia" (to appear in a volume edited by O. Tunca).

I plan to eventually integrate these articles into a full-size monograph and at that time I will include a fuller documentation than is possible here; this will include photographic illustrations of the (modern!) land forms referred to in this article.

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development of the wells led to the establishment of a rural class which came to be more and more autonomous of urban controls, since city based administration and military power never effectively extended (or even tried to extend) to the steppe. Since the agro-pastoralists remained essentially agrarian in character, i. e. based in the *zor*, and used the steppe only as an extension of their narrow farming strip (the *zor*), the state never thought it necessary to establish firm controls on this pasture land so ephemeral in use : the Mari texts represent this by showing how all confrontations of the state with the agro-pastoralists took place in the agrarian *zor*, and never in the pastoral steppe. And yet, given the abundant possibility of long term survival in the steppe, these agro-pastoralists developed into a formidably autonomous rural class, such as the south had never known. In other words, their effective potential of turning into full "pastoralists" gave them a degree of political power which resulted eventually in the establishment of the so-called Amorite dynasties.

The present paper deals with the rural landscape of the ancient *zor* on the basis primarily of the texts from Terqa. I will look at the physical landscape², referring in particular to the perception which the ancients had (and expressed in their texts) of the physical dimension of their *zor* environment. I should give in this connection a brief note on methodology³. A fascinating result of the combination of archaeology and philology with a thoughtful visual inspection of the landscape results in what may be called "perceptual geography", i.e. a recognition of aspects of the physical landscape which assume a special role in the consciousness of the people living in it. If environment may be taken literally as that which "envelops" the unfolding of human life and culture, then environmental factors are truly relational, i. e. they derive their significance not so much in terms of absolute (-etic, if you will) measurements, but in terms of the "users" (-emic) perception. In other words, environmental considerations presuppose a polarity which must be recognized and described -- the human pole being found by and large in the evidence of language (and to a more limited extent in the evidence of modifications of the landscape itself).

2. Aspects of the "social" landscape, including such matters as land tenure, are dealt with in article n. 5 of those quoted in note 1.

3. For a somewhat longer treatment of the same topic, and some preliminary bibliographical indications, see article n. 2 quoted in note 1 above.

Such "perceptual geography" adds immeasurably to our understanding of a number of fields of study, from semantics to history, as I hope my various contributions, of which this is one, may help to show.

* * *

As discussed recently by Sanlaville⁴, the Euphrates in its middle course forms a fairly deep trough, with terraces leading to an escarpment which flanks the valley floor sometimes as a steep wall, sometimes as a smoother rise, but always too formidable a barrier for river based irrigation. Beyond the escarpment, on either side, lies the steppe. The special configuration of this trough, emphasized in a unique way in the region of Terqa, is clearly visible both on a map that shows the 250 ms. contour line, and in satellite views. This aspect of the landscape is highlighted by a word current in the local dialect and used to refer specifically to this trough. It is the Arabic word *zor*, found also in the name of the modern provincial capital "Der ez-*zor*". The technical English term "river oasis" does not have quite the same impact as the Arabic word, which I will use here. Given the admitted continuity of geomorphological and climatic conditions between ancient and modern times, it is intriguing to attempt to elicit from the texts of Terqa an image of the ancient *zor* which may be compared with today's view.

And to begin with, what was the ancient word for this important dimension of the landscape, the *zor*? As I have argued elsewhere⁵, I suggest that Akkadian *ah Purattim*, literally "the bank of the Euphrates", refers precisely to the *zor*. It appears in fact in the texts in a way that excludes a specific reference to the physical bank of the river and that implies instead a cultural construct much in the same way as the word *zor* does. I have also argued along similar lines (in the same article) that the royal title *šar kibrātim arba'im* which is normally translated as "king of the four quarters of the world", refers in fact to the four river banks, i.e. the two river banks of the Euphrates and the two of the Tigris -- using what is in fact the literal meaning of the word *kibrum*. The "four river banks" are thus the irrigated land, i. e. the farmland which receives its water through feeder canals from the two great rivers. Perceptually, if not etymologically, this expression is substantially the same as the Greek word "Mesopotamia". In this sense, then, "king of the four river banks"

4. Paul Sanlaville, "L'espace géographique de Mari," *M.A.R.I.* 4 (1985) 15-26.

5. In the second of the articles quoted above in note 1.

could, I believe, appropriately be translated as "king of Mesopotamia". Note how a similar political image is conveyed by the claim of Yahdun-Lim of Mari that he had control of the "bank (*kišād*) of the Euphrates" -- the same as *ah Purattim* (I do not consider the absence of an expression "two river banks" as a particular problem, since the term "river bank" had acquired in this region a collective meaning that needed no dual or plural. A plural is found on the other hand with the term *baša'ātum*, which I take to refer to the two escarpments and the buffer zone between them and the heart of the steppe⁶).

How can we now fill in the landscape of the *ah Purattim*, of the ancient *zor* ? As a preliminary step in this direction, I will suggest here an interpretation of various key terms viewed in a structural way. The map given here as Fig. 1 will provide a schematic rendering of the setting of these terms, which are primarily derived, for the purposes of this paper, from the texts of Terqa ; I will have to leave a fuller argumentation as well as the detailed philological and photographic documentation for a subsequent reworking of the topic discussed in the present paper. A preliminary presentation of the philological evidence is provided here in the tabular form in Chart 1.

The major limitation of the landscape is clearly hydrological : water is available only from the Euphrates, and cannot be raised higher than the edge of the escarpment. In terms of water access, we may differentiate three major sectors in the *zor* -- which are illustrated especially in Fig. 2. (1) The banks of the river have direct access to the river water, and are also subject to flooding ; a long levee which runs parallel to the river edge delimits this sector by providing to the other sectors some defense against flooding. (2) Beyond this levee there is an area which can be reached by irrigation water, generally through canals whose inlet is from the river at an upstream location. This sector is essentially flat, except for a very slight incline which allows the flow of water. (3) As one approaches the escarpment there is an area which is too high to allow access to irrigation water, but can still be watered, if less efficiently and systematically, through other means. We will now look at these three sectors in some more detail.

The Akkadian term *ušallum* is likely to refer to the first sector, i.e. to the fields which are immediately along the banks of the river (*nārum*) and thus can access water more easily, but are at the same time regularly subjected to flooding and thus are not as desirable under normal conditions (they might be, perhaps, in time of extended drought). The term

6. See the second article quoted above in note 1, section 2, for references to both the Yahdun-Lim's inscription and the *baša'ātum*.

šiddun arkum (with nunation) is likely to refer to the "long levee" --which is called *sedd* in Arabic and today runs parallel to the river, protecting fields and houses from being inundated by the river. (Short of catastrophic events, flooding has been eliminated in recent years as a result of the construction of dams upstream the Euphrates. This was brought vividly to our attention as we chose an area between the edge of the river and the *sedd* as a construction site for our new Expedition House in Darnaj, opposite Ashara. Our choice was conditioned by the realization that under normal conditions the house would not be under any danger. While no houses were built in that location at that time, and while the *sedd* was still in place at the time we started construction, our initiative seemed to spur a flurry of activities on the *sedd*, which is now being systematically demolished and being reclaimed for agricultural use).

Whether or not it coincided the long levee, the major north-south highway must have followed a similar course, parallel to the river. It was called the "road of the country" (*harrān mātīm*, *girri mātīm*) or the "great highway" (*harrānum rabūm*), and it was probably intersected by local roads named after cities and towns (e.g. *girri Terqa*).

The major sector of the *zor* is the one protected on one side by the long levee and bounded on the other by the higher ground which reaches toward the escarpment and becomes progressively inaccessible to irrigation water. In addition to the river itself and to a couple of major canals which run parallel to the river (a canal is also called *nārum* in Akkadian), water is diverted to the fields through smaller canals, which are called *namkarum* or *atappu* : the latter is the more common term and is generally accompanied by a geographical name referring to a group of fields or *ugārum* -- that is, an irrigation district served by a medium size feeder canal. In today's landscape, a motorized pump and the canal system derived from it are owned and operated by small local cooperatives of farmers. Water flow was controlled by sluice gates, to which presumably the term *sēkirum* refers.

An irrigation district or *ugārum* is thus clearly defined as a discrete entity by virtue of its differential access to water. Within it, each individual field (*eqlum*) is in turn defined by the same criterion, water access, in a way which is subtly but significantly made explicit in the terminology, as we shall now see. Water is diverted to the fields from the feeder canals by means of small ditches, which today are no more than one or two feet in width and which regulate the flow of water simply by means of small shovelfuls of dirt. The slope of the terrain is of course of crucial importance, however imperceptible it may look at first. The

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texts consistently define the boundaries of a field as consisting of a "higher front" (*pūtum elītum*) and a "lower front" (*pūtum šaplītum*), and of two "sides" (*itū*). The perceptual background of this nomenclature seems quite clear : we are dealing with rectangular plots of land (just as today), with the term "front" referring to the narrow side and the term "side" to the long side. The "high" front is to be understood as lying at a slightly higher elevation, i. e. where the water inlet was located from the feeder canal ; the "lower" front is logically at the opposite end, i. e. downstream from the feeder canal. The obvious reason for the rectangular shape of the plots is that it allowed for the most economical utilization of the water rights from the feeder canals : as the canal side had to be shared by many different field owners, the field boundaries lying on the side (the "higher front") would most logically be narrower, so that more field lots would have access to the water from the canals (today's fields in the area of Terqa are often just a few yards wide on the canal side).

Besides deriving water from the river by means of canals, a second major source of water is found in small swampy areas which correspond to blocked off meander loops. These too were probably used in antiquity, and I am suggesting that three words found in the Terqa texts are all different variations of one and the same term referring to this feature of the landscape -- the word written syllabically as either *ar-ru* or *hu-ur-ru*, and the logogram A.SUG. The alternation *u/a* is attested in Terqa in the writing *Hu-bur* for the Khabur river, *uddurarum* for *andurarum*. and perhaps *nūbalum* for *nābalum* (to which I will return in a moment). Since SUG is a logogram for "marshy area" (*appārum* in Akkadian), and *haruru* stands for "watercourse" or a depression-like topographical feature, it is likely that the three terms refer to one and the same geographical feature so common in the *zor*, a standing body of water, corresponding to old meander loops, and swamplike in appearance, particularly on account of the reed thickets growing alongside it. Another term which may correspond to a blocked off meander loop viewed as a topographic feature of the relief rather than as a standing body of water is *issū*, which has otherwise generally the meaning of "depression".

The third major sector of the *zor* is the higher ground which is no longer irrigable and which becomes, sometimes gradually and sometimes abruptly, the escarpment. I suggest that the ancient term for both the escarpment proper and the non-irrigable upslope which leads to it was *nūbalum*, which I interpret as a phonological variant of *nābalum* "dry land" (assuming an alternation *a/u* of the type mentioned above). Today, land in the gradual upslopes that are at the base of the escarpment proper is available practically for free to

anyone who goes through the trouble of carrying water to it as needed. The mention in a Terqa text of an *eqel dalūti* ("field of water lifting" -- an ancient term which finds an echo in modern Arabic usage) would seem to refer to the means used for delivering water to such higher ground : the water was being raised with buckets ! Interestingly, this "field of water lifting" is bordered on one side by the *nūbalum* and on the other side by a *hurru* -- that is, in my interpretation, by the arid upslope and by a swampy meander loop, which obviously provided the water which was being bucketed to the field.

We do not have in the available textual evidence from Terqa references to the type of agricultural yield that this rural landscape produced. An interesting passage speaks of the *mūšarum ša ebirtim* "the garden of the other side", which would seem to refer to the "other side of the river", i. e. the eastern bank (which I presume was otherwise referred to in Mari by the Amorite word *aharatum*). Although it may be a mere coincidence, it is relevant to notice today the best gardens in the area are found precisely on that side of the river (i. e. in Darnaj rather than in Ashara).

* * *

The wider implications of this reconstruction may be gauged in the light of a fuller study of the geography of the entire region, including the steppe -- from which the unique distinctiveness of Khana may better be appreciated than has generally been the case in the field of ancient Mesopotamian studies. The very amount of detail that we have for the valley floor or *zor* is indicative of the density of the human occupation of this narrow but most fertile area. Beyond that, above and beyond the *nūbalum* or escarpment, in the area to which the Mari texts refer⁷ as being *eliš* or *elēnūm* "towards or in the high ground" (i.e. the plateau of the steppe) -- lay the other "half" (though much bigger in size) of the Khana rural landscape. The saturation of the agrarian rural landscape in the *zor* had led almost by necessity (but without any suggestion of an environmental determinism !) to a more determined, almost industrial exploitation of the steppe -- which was to color indelibly the cultural development of ancient Syria contributing in a major way to the definition of its unique historical physiognomy.

7. According to the interpretation which I have put forth in the second of the articles quoted above in note 1.

Les notes 8 à 11 sont absentes, elles correspondent à un appendice qui n'a pu être publié pour des raisons techniques.

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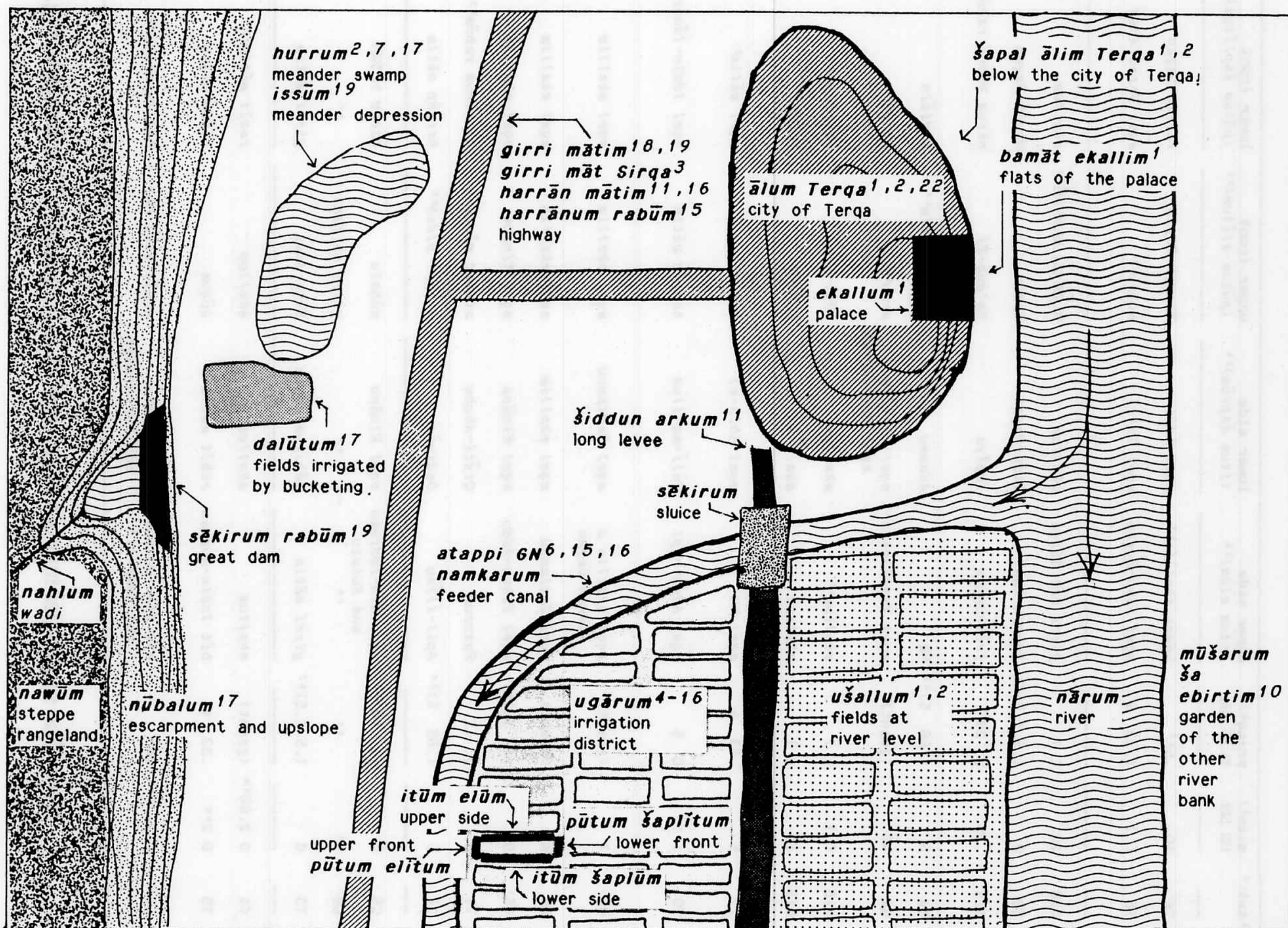


Fig. 1 - Rural landscape of the ancient Zor : schematic reconstruction - top view
(Numbers refer to sequential list of references given in Chart 1)

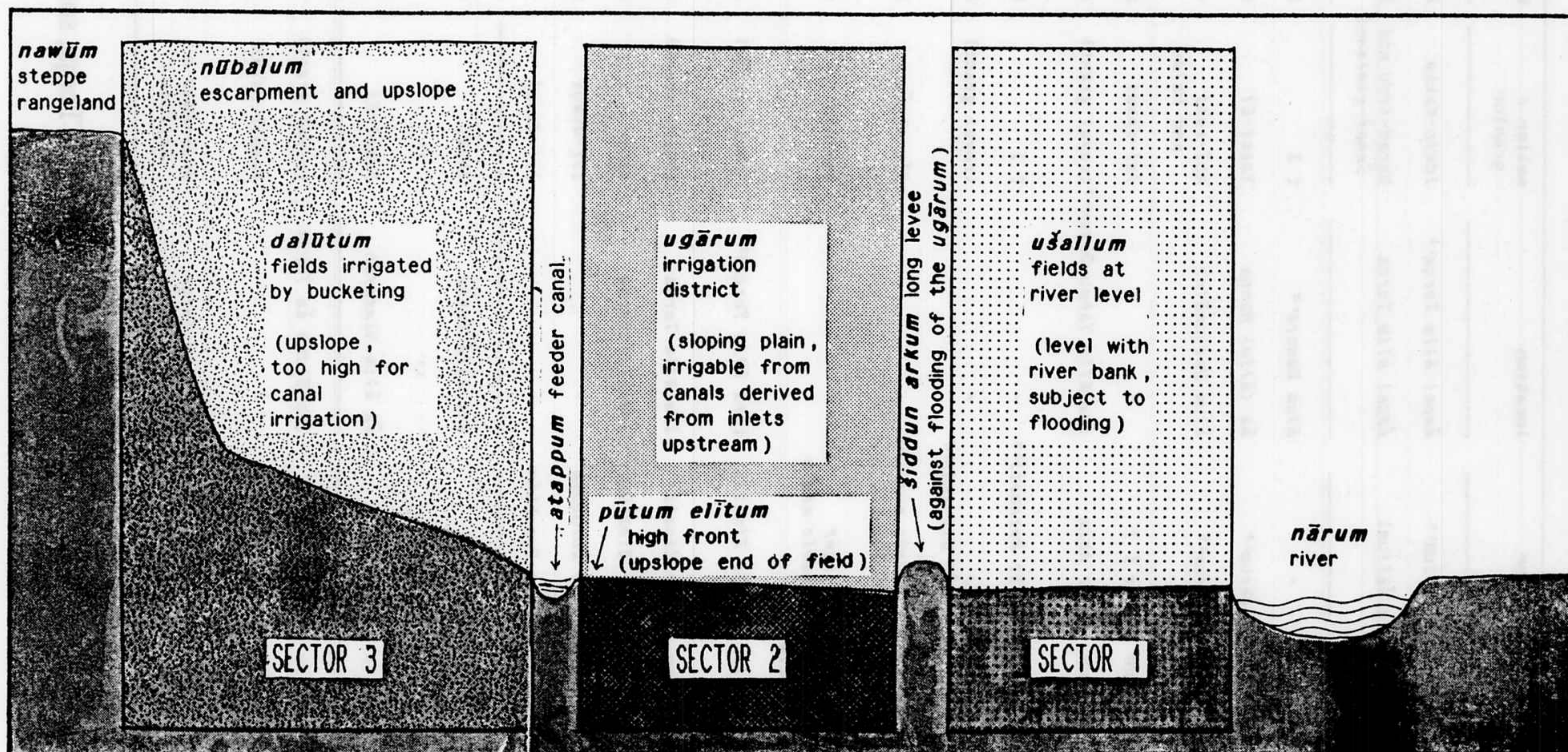


Fig. 2 - Rural landscape of the ancient Zor : schematic reconstruction - side view

	rf ¹ item	sector	location	seller / grantor	buyer / grantee	k. ¹ txt ⁴	size ^{2,1} IKU SAR	price ^{2,2} MA. MA GIN ₂	upper side (itum elūm) ^{2,3}	lower side (itum šaplūm) ^{2,4}	upper front (pūtum elītum) ^{2,5}	lower front (pūtum šaplītum) ^{2,6}	rf	
SECTOR 1	1. eqlum	ušallum ^{1,3}	šapal ālim Terqa ⁴	Iddin-Kakka	Puzurum	3 T6	10	.5 ^{2,7}	bamāt ekallim ^{2,8}	eql Iddi	Yassib-Dagan	Yassib-Dagan	1	
	2. eqlum	u(šallum)	šapal ālim Terqa	Warad-Addu and Šamaš-gimlanni	Binniqu	1 T8	[]	1.33 5	eql Samu-Dagan	eql Yatti	hurru ^{2,9}	eql Warad-Adad	2	
SECTOR 2	3. ^{1,7} eqlum	-	ālum Danara ^{1,8}	[]	[]	11 G18	10	[]	girri māt Sirqa	ekallum	TU.ŠUM US ₂ .SA.DU DIŠ ^{4,9}	ekallum	3	
	4. eqlum	ugārum ^{1,9}	ša <ālim> Hanna	Yassi-El	Puzurum	3 T3	3	(.5 1.5) ^{4,11}	Yantin-Ammi	Samu-Dagan	Samum	Napsi-Dagan	4	
	5. kirum	ugārum ^{2,0}	ālum Qattunā<n>	Abī-rapi and Halmu	Iddin-Aškur	11 G22	.25	0 26	Irīm-Dagan	Ibbīya	Ya'qub-El	nārum Hubur rabūm ^{2,1}	5	
	6. eqlum	ugār []	-	Isi-dammi	Puzurum	3 T4	5	(.66 5) ^{4,13}	PN	Adammu	atappi mātīm ⁴	Ladišin	6	
	7. eqlum	ugār Abim	ina ālim Yahmu-Dagan ^{2,1}	(royal grant)	Pāgirum	6 G4	40	(grant)	eql Yassi-qatar	eql ekallim u eql Wa ^{1,1} -ar-du	arru ^{2,5}	arru ⁴	7	
	8. [eqlum	ulgār Baramati ^{2,2}	-	[]	[]	10 G18	[]	[]	ekallum ^{2,7}	ekallum	[Pū]-Sīn	[ekallum	8	
	9. eqlum	ugār bīt Bin-Addu ^{2,3}	-	(royal grant)	[]	9 G19	10	[]	ekallum	ekallum	TU.ŠUM ^{2,9}	TU.ŠUM	9	
	10. eqlum	ina ugār mūšarum ša ebirtim	-	Sīn-abuša	Puzurum	3 T2	5	.33 4	eql PN	eql Abih-el	bītum ^{2,9}	eql mātīm ^{2,1}	10	
	11. eqlum, eql mātīm ^{2,4}	ina ugār šiddin arkim	-	Hasibum	Addu-rapi	2 T9	1 15	0 5	eql Addu-rapi	Bēlī-ma-ilum	harrān mātīm	eql Iddin-lšhar	11	
	12. [eqlum]	[ugār Zinati]	[ina ālim Terqa] ^{2,5}	(royal grant)	Pāgirum	6 G4	7	(grant)	eql ekallim u Yasmah-Dagan	eql Zaziannu	eql ekallim	eql ekallim	12	
	13. eqlum	ugār Zinati	ina ālim Terqa	(royal grant)	Pāgirum	6 G4	4	(grant)	eql Zaziannu	eql ekallim	eql ekallim	eql ekallim	13	
	14. eqlum	ugār Zinatum ^{2,6}	ina ālim Terqa	Akuki	Bakī-illum	4 G5	8	(1 10) ^{2,11}	eql Yakun-Addu	eql Kināna	eql Kinānu	eql ekallim	14	
	15. eqlum	ugār Zurubbān	-	Ilī-dumqi	Puzurum	3 T1	3	0 12	Puzurum	Qišti-Abubu	atappi nārim ^{2,12}	harrānum rabūm ^{2,13}	15	
	16. eqlum	ugār Zurubbān ¹	-	Isi-dammi	Puzurum	3 T4	5	(.66 5) ^{2,14}	Apil-ilīšu	Dadiyān	atappi Bidah ^{2,15}	harrān mātīm	16	
	SECTOR 3	17. eqlum	dalūtu ^{2,7}	ina ālim Terqa	Akuki	Bakī-illum	4 G5	6	(1 10) ^{2,16}	eql Sīn-iddinam and Kutatu	eql Kinānu	nūbalu	harru (A.SUG)	17
		18. ^{2,8} "	"	"	"	"	4 G6	"	"	"	"	girri mātīm	"	18
19. eqlum		issūm ^{2,9}	ša ālim Himmārān	Yassi-El	Puzurum	3 T3	6	(.5 1.5) ^{2,17}	girri mātīm	sēkirum rabūm	Bina-Ammi	girri mātīm	19	
SETTLEMENT	20. bītum	-	ina Bidah ša Terqa	(royal grant)	Abī-hunnī	7 G1	0 2.66 ^{2,18}	(grant)	ekallum	ekallum	ekallum	rebīt mātīm ^{2,19}	20	
	21. bītum qaqqarum ^{2,9}	-	-	Yasmah-Dagan	Puzurum	3 T5	0 2 ^{2,20}	.33 4	bīt Iddin-Rušpan	rebīt mātīm	sūqum	Habdu-Dagan	21	
	22. epšu	-	ina ālim Terqa	Ayya-ammu u Belšunu	Hisni-Dagan	4 G17	0 3.33 ^{2,21}	.66	bīt Sīn-iddinam and Amār-ilī	bīt Mut-illum and Durru-ammī	rebīt akīt Mer	bīt Yakūn-Addu	22	

Chart 1 - Synopsis of real estate transactions from Terqa, sorted by sectors.

Note. The sequential number of references (in column "rf") is keyed to Fig. 1

Notes to Chart 1.

12. Chart 1 provides the basic philological documentation to the narrative portion of the article and to the figures, to which it is keyed by means of the sequential number of references given in this column. More extensive documentation (including especially data from Mari) and a fuller argumentation remains to be provided at a later date. It must be stressed that the interpretations proposed are in many cases only tentative ; the final version of this study will provide the necessary nuancing.

13. This column gives the number of the Khana kings according to the list first established in G. Buccellati, *Terqa : An Introduction to the Site*, Preprint on the occasion of the Symposium of Der ez-Zor (to be published by the Directorate General of Antiquities and Museums, Damascus), 1983, and G. Buccellati and M. Kelly-Buccellati. "Terqa : The First Eight Seasons", *Annales Archéologiques Arabes de Syrie* 33/2, 47-67. Documentation for this list has been given in the fourth article mentioned in note 1. The list, which reflects a chronological order based on stratigraphic and epigraphical considerations, is summarized below for the reader's convenience. A fuller study on the chronology of the kings of Khana is in preparation by A. H. Podany as a UCLA doctoral dissertation.

- | | |
|-------------------|-----------------|
| 1. Yapah-susu-[] | 7. Išar-Lim |
| 2. Isi-Sumu-abu | 8. Iggid-Lim |
| 3. Yadikh-Abu | 9. Isih-Dagan |
| 4. Kaštilyašu | 10. Yassi-[] |
| 5. Šunuhru-Ammu | 11. Hammu-rapih |
| 6. Ammi-madar | |

14. The texts are abbreviated as follows. "T" refers to the texts published by O. Rouault, *Terqa Final Reports*, Vol. 1 (= *Bibliotheca Mesopotamica*, Vol. 16), Malibu 1984 ; this volume is abbreviated as *TFR* 1. "G" refers to the edition of texts from Terqa known from before our excavations at the site, and published for now on disk within the series *Cybernetica Mesopotamica : Texts 1A*, Malibu (Undena), 1987. For the convenience of the reader, the original publication for the pertinent texts is given below.

G	Museum #	Original publication
1	A0 2673	F. Thureau-Dangin, <i>TCL</i> 1 237 = <i>RA</i> 4 (1897), no 85, pl. XXXII.
4	VAT 6685	A. Ungnad, <i>VS</i> 7 no. 204, p. 82 = <i>BAss</i> 3 (1909) p 26 ff.
5	A0 4656	F. Thureau-Dangin, <i>TCL</i> 1 238 = <i>JA</i> 1909, 149-55.
6	A0 4672	M. Schorr, <i>Babyloniaca</i> 3 (1910) 266-67, Pl. XVII.
17	M 1	T. Bauer, <i>MAOG</i> 4 (1928/9) 1-6.
18	YBC 6518	F. Stephens, <i>RA</i> 34 (1937) 184-186.
19	A0 20162	J. Nougayrol, <i>RA</i> 41 (1947) 42ff.
22	Schaeffer	J. Nougayrol, <i>Syria</i> 37 (1960) 205-9.

15. Written u^2 -ša-al-lum. See n. 27.

16. This may be interpreted either as "downstream from Terqa" or "below Terqa", i e. in the low ground at the base of the tell on which, already in the 2nd millennium, the city of Terqa stood. Today, there is such a cultivated area between the base of the tell and the river edge. - Notice that *alum Terqa* means both the city as a walled settlement (thus presumably in references 1,2,22), and the hinterland or district (thus apparently all other references, which pertain to fields - obviously not to be found within the settlement itself).

17. Entries in this section are listed by the alphabetical order of the *ugārum* name.

18. This is a field for which no sector is given. Conversely, a field for which the irrigation district is given (*Baramati*, see below), is mentioned in the same text without the name of a city to which it belongs. The date of the text is late, and some changes may have intervened in the administrative style of these documents. It is also possible that *alum Damara* is used in lieu of a reference to a given sector (hence possibly the lack of the preposition *ina*) if the irrigable strip (*zor*) was so narrow at this point that a proper distinction between the three sectors would be inoperative : interestingly, such is precisely the case with the region of Dura-Europos where this text was found (and to which possibly the *Damara* refers). The same city name is mentioned a second time in the same text in broken context.

19. In this case there is no proper name for the irrigation district, possibly because it was in direct proximity of the town. and reference to the town name served as sufficient identification.

20. See n. 19.

21. Or *Al-Iahmu-Dagan* (*i-na URU Ia-ah-mu-DINGIR-Dagan*). The tablet was bought in Der ez-Zor, and it was said to have come from Rahba : could it be that Yahmu-Dagan is the ancient name of Rahba ? Note how the field size for this location is much larger than for any other field in this list. This may be due to (1) its being located in a less favorable position, i. e. near the (*h*)*arru* (if my understanding of this term as "swampy meander loop" is correct -- note that salinity would be higher in such an area), and (2) its being farther away from the prime real estate which was situated near the capital.

22. See above, n. 18. Other fields mentioned in the same text are associated with the city of Damara (which may correspond to Dura-Europos).

23. This reading has been suggested by O. Rouault.

24. "A one acre field and a public lien field of 1/4 of an acre". By "public lien field" I translate (tentatively) the term *eqel matim*, literally "field of the land". In T2 the term serves as identification of a specific field, which may imply that some of the land in this category had not been assigned to individual owners. In the present text the owner disposes of the field with an explicit statement that he has clear title to it.

25. This restoration seems likely in view of the identity between the neighbors listed for this and for the next field.

26. On the basis of the alternation *Zinati/Zinatum* I assume that *ugarum* governs a construent noun in the genitive, rather than an apposition (*ugarum Zinatum*).

27. Written *da-lu-tu*. Since *eqlum* is consistently written A.SA₃ and *ugarum* is consistently written A.GAR, it is not clear what the grammatical relationship between the terms might be. The logic of the discourse (such as it may be embedded in an administrative text) would suggest a construct state : *eqel daluti*, *eqel ugar* GN. On the other hand the nominative given in this text, as well as the syllabic spelling of *usallum* in T6 and T8 suggests that the terms are juxtaposed, as if given parenthetically.

28. Text G6 is identical to G5 except for the interesting variant recorded here : *girri matim* is given in place of *nubalum*. This would tend to support the idea that the main highway was located in Sector 3, the upslope portion of the *zor* which is not irrigable by canal and thus less desirable for agricultural purposes.

29. Even though there is no explicit indication that this field is in sector 3, I assume this to be the case because of (1) the absence of the qualification *ugarum*, and (2) its proximity to the main highway (*girri matim*). If the "great dam" (*sekirum rabum*) refers to a reservoir dam on a wadi (for which see other contributions in this volume), then the location of the *issum* in sector 3 would be further corroborated.

30. As suggested by O. Rouault (*TFR* 1. p. 29) this probably refers to a buildable lot.

31. One IKU is approximately one acre (about 1/2 hectare), and one SAR is 1/60 acre (about 35 m²).

32. One MA.NA. is approximately one pound (about 450 grams), and one GIN₂ is approximately 1/60 of a MA.NA. (about 7.5 grams). Weights refer to silver equivalencies.

33. Written US₂.SA.DU AN.TA. See also US₂ AN.TA. in G22. For a syllabic writing see *ARM* 86: 24'. Given the essentially east-west orientation of the longitudinal axis of the fields, it is conceivable that "upper side" means "northern side", which in practice is identical to the "upstream side" of the feeder canal.

34. Written US₂.SA.DU KI.TA.. See also US₂ KI.TA. in G22.

35. Written SAG.KI AN.TA. ; see also SAG.KI I KAM in T8, T9. For a syllabic writing, showing that *putum* is feminine, see *ARM* 86 : 26'.

36. Written SAG.KI KI.TA. See ALSO SAG.KI 2 KAM in T8, T9.

37. In addition to the half mina of silver, the price for this particular field includes 50 A.GAR (about 8000 bushels) of grain.

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38. This may mean "the uncultivated open area belonging to the palace". It is our presupposition that the Khana palace is found today on the edge of the tell which faces the river (G. Buccellati, *Terqa Preliminary Reports* 10, 1979, p. 41) : while we do not have the outer walls of the palace, what we have today rises steeply above the river edge. It is conceivable that the *bamat ekallim* were, in antiquity as to some extent today, the broad area between the river and the edge of the tell. If so, this would have provided an open space in front of the palace, which was not for cultivation but rather for reasons of defense and possibly of aesthetics. This would explain the term *bamatum* instead of *eqlum*.

39. If my interpretation is valid, this would refer to a swampy meander loop very near the present edge of the river.

40. "The same as the upper side", i.e. the main Terqa highway. The Akkadian reading (see J. Nougayrol, *RA* 41, p. 42, n. 4) is unclear, but the meaning seems certain ; see also *GC* 19.

41. Global price for a total purchase of 9 IKU of agricultural land.

42. This orchard is both on the edge of the Khabur river and in an irrigation district. Typically, the banks of the river (whether the Khabur or the Euphrates) were too high to allow drawing water directly from it. Thus, it stands to reason that the river should be at the lower end (or "front") of the field. Notice how this is often the case in Emar, where the Euphrates is often given as the boundary on the "second front" of a field (where "second" corresponds to "lower") -- see e. g. Arnaud, *Emar* 6, (cited), N. 149:7

43. Global price paid for a total purchase of 10 IKU of agricultural land.

44. Note how the feeder canal is at the high end (or "front") of the field.

45. I understand (*h*)*arru* as equivalent to *hurru* in the meaning of "swampy depression (corresponding to an ancient meander loop)". In this case it is located in the *ugarum* sector of the *zor*.

46. See n. 45.

47. Just as a simple personal name can stand for *eqel PN*, so *ekallum* must stand here for *eqel ekallim*, since it is hardly likely that the field should have been next to the palace itself. See n. 38.

48. See n. 40.

49. Apparently an isolated house in the fields. The fact that no proper name accompanies it may suggest that such isolated buildings were relatively rare in the landscape.

50. By analogy with *harran matim* and *rebit metim*, *eqel matim* might refer to public land which is not actively exploited by the government (in which case it would be called *eqel ekallim*). One may wonder if the term refers to a special tax status of the field, somewhat analogous to a field subject to the *ilku* duty.

51. Total price for one *eqlum usallum* and one *eqlum dalutum*, totalling 14 IKU of agricultural land.

52. See n. 44.

53. In this case and in the next, the highway seems to have crossed the irrigable land since it is on the lower side of the feeder canal.

54. Global price paid for a total purchase of 10 IKU of agricultural land.

55. See n. 44.

56. Total price for one *eqlum usallum* and one *eqlum dalutum*, totalling 14 IKU of agricultural land.

57. Global price for a total purchase of 9 IKU of agricultural land.

58. This is $2 \frac{2}{3}$ SAR, or about 100 m².

59. "The public square". The property in question is in a prime real estate location !

60. 2 SAR, i. e. about 70 m².

61. This is $3 \frac{1}{3}$ SAR, or about 115 m².

DISCUSSION

F. Rifai - A t-on essayé de relier le mot *zor* avec le terme turc *zor* qui signifie "difficile", ou avec l'arabe *zaour* qui signifie "gorge" ?

G. Buccellati - Je ne voulais pas proposer une explication étymologique, mais simplement une situation géographique et écologique en liaison avec les textes.

A.-R. Hamidé - Le mot *zor* est un mot arabe qui signifie la partie grasse, c'est à dire géologiquement parlant la plaine alluviale. C'est, pédologiquement parlant, la partie la plus riche. De même, autrefois, *zor* désignait la partie la plus recherchée du mouton, la poitrine riche en graisse. Le *zor*, c'est la partie la plus riche et la plus grasse du sol irrigué dans la plaine alluviale.

P. Sanlaville - Je pensais que *zor*, que l'on oppose dans la plaine du Jourdain au *ghor*, désignait la partie centrale de la plaine alluviale, là où il y a une végétation extrêmement abondante liée à l'humidité. Personnellement, j'en ferais plutôt l'équivalent du lit majeur, celui qui est inondable et dans lequel il y a des îles boisées, et non pas la plaine alluviale proprement dite, la zone des terrasses cultivables à côté. Mais je ne connais pas le sens exact du mot arabe.

S. Zakri - Votre exposé sur les échanges entre zone cultivée, steppe et domaine des nomades me rappelle une de mes études sur l'aspect rural de la Palestine au XIXe siècle. J'y avais noté cet échange constant d'activités entre gens de la plaine, gens de la steppe et nomades. Car la steppe apporte des produits qu'on ne trouve pas dans la plaine cultivée. Vous avez parlé du sel, mais il y avait aussi d'autres produits, ainsi le bois qui alimentait les fours et certaines plantes qui entraient par exemple dans la composition du verre ou qui servaient pour la cuisson de productions semi-industrielles. Il y avait aussi un trafic très important de plantes médicinales. Ibn Beithar fait allusion à cela : les nomades et les semi-nomades apportaient aux villages des plantes spécifiques de maladies comme la lèpre par exemple et qu'on ne trouvait que dans la steppe. Ensuite, effectivement, il y avait un mouvement, suivant les époques, suivant les périodes de sécheresse, des agriculteurs vers la steppe. De même, quand il y avait trop de problèmes politiques, alors les gens devenaient semi-nomades ou nomades. Je pense que les trois zones sont complémentaires et qu'il y avait des activités de relation constantes.

G. Buccellati - Oui, c'est la question des différentes adaptations. En ce qui concerne ces produits, un des plus fameux de l'Antiquité se trouve encore aujourd'hui et vient de la partie centrale du Jebel Bichri : c'est la truffe qui est mentionnée comme typique des Amorites.

M.W. Kamel - Y a t-il des canaux qui joignent le Tigre à l'Euphrate ?

B. Geyer - Des canaux pouvaient joindre l'Euphrate au Tigre en Basse Mésopotamie, mais il est exclu qu'il y en ait eu dans la région de Deir ez-Zor à Abou Kémal. La distance est trop grande et de toute façon les différences de dénivelée rendent la chose impossible.

Mais je voudrais revenir sur la distinction que vous faites entre trois types de terres irriguées. Vous parlez d'un premier type qui serait les meilleures terres, directement en bordure de l'Euphrate, un deuxième type qui serait les terres irriguées par les canaux, et un troisième type qui serait les terres irriguées à partir des anciens méandres...

G. Buccellati - ...et à partir des puits, c'est à dire *dalūtum*. Ce peut être à partir de puits ou à partir d'autres canaux. En fait, le *dalūtum* peut être aux limites des canaux, un peu plus haut que les canaux et on y apporte l'eau à la main. Mais les meilleures terres ne seraient pas celles en bordure du fleuve, mais celles au centre de la terrasse, surtout du point de vue de la fréquence de nomination puisque la plus grande part des terres sont classées comme *ugārum*. Et puis, pour les terres du bord du fleuve, il y a le problème de la crue.

B. Geyer - C'est vrai, mais le secteur le plus élevé du fond de vallée est à proximité directe du lit majeur du fleuve, là sont les terres les plus hautes, et en théorie on devrait pouvoir les considérer comme les meilleures dans la mesure où elles sont les mieux drainées. Plus on s'éloigne de l'Euphrate et moins le drainage est efficace. Et justement, avez-vous des précisions quant aux bras morts de l'Euphrate à partir desquels on prenait de l'eau, car ces bras morts sont des secteurs généralement très bas et dans lesquels peuvent se concentrer les eaux salées des nappes phréatiques. Il peut donc y avoir difficulté à se servir de cette eau parce

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qu'on risque de brûler les plantes. Savez-vous si cette eau était utilisée toute l'année ou uniquement à la fin de la crue, moment où l'eau se concentre dans ces cuvettes naturelles et peut servir à une irrigation immédiate ?

G. Buccellati - Je ne peux pas vous répondre car j'ai tiré cette information de la description des limites des champs - en général, c'est près des marécages - mais les textes ne mentionnent pas le moment où l'on prend l'eau.

M. Haj Ibrahim - Les terres du bord de l'Euphrate peuvent être considérées comme les plus riches car c'est là que se dépose le limon neuf, sans sel, apporté par la crue. Et les paysans de la vallée recherchent en priorité les petits îlots, les rives où s'accumulent ces limons pour semer.

Par ailleurs, il ne faut pas négliger l'importance des échanges entre la Badiya et le *zor* ou la vallée car il y a toujours eu trois catégories de population : les nomades, les semi-nomades et les sédentaires et l'importance de la catégorie moyenne est à souligner puisque c'est par elle qu'on peut passer de la sédentarité au nomadisme et vice-versa, ce qui a dû arriver souvent avec un fleuve aussi dangereux que l'Euphrate.

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EN DOMAINE IRRIGUÉ**

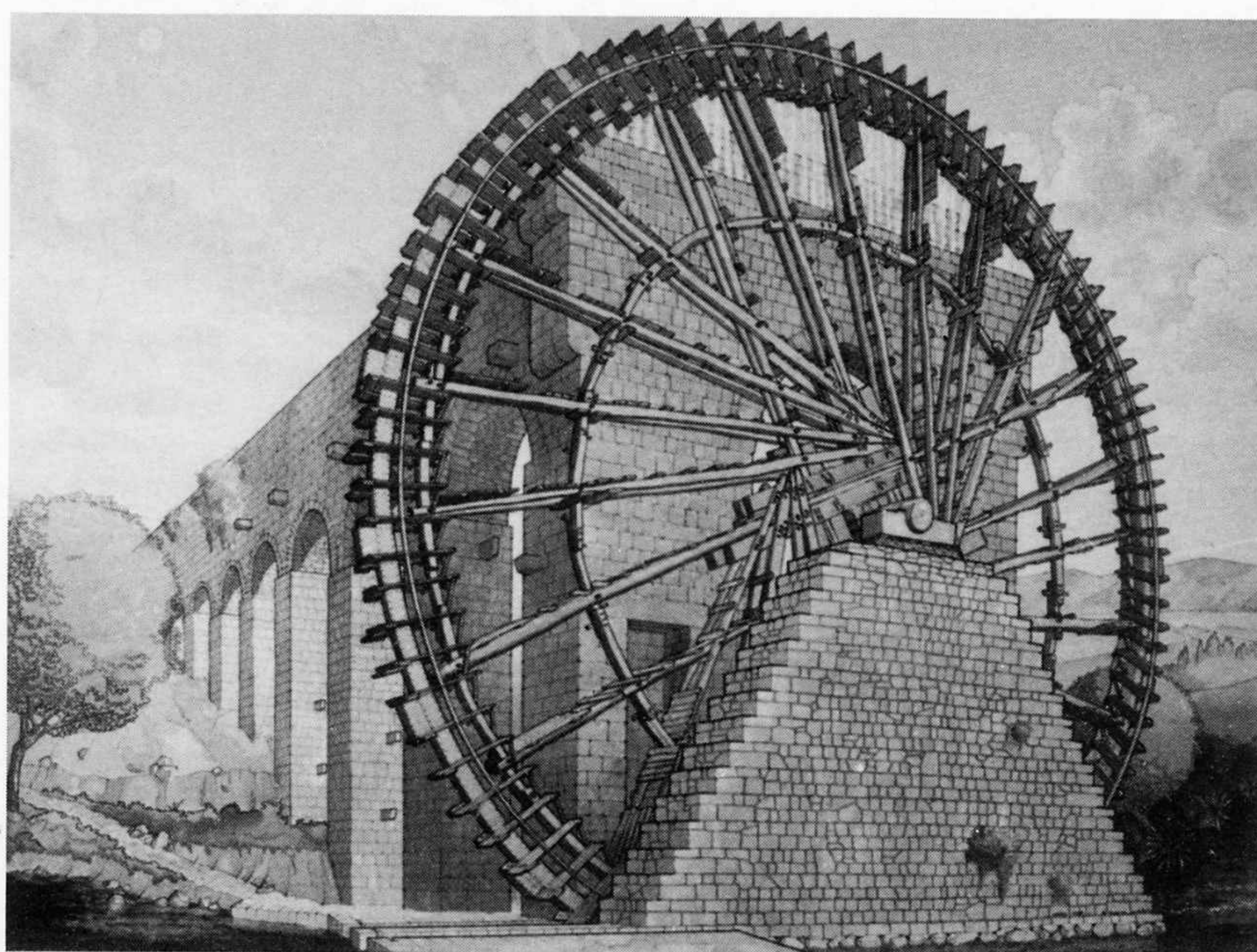
APPROCHE PLURIDISCIPLINAIRE DES MODES DE CULTURE
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