

SAN JUAN PATA BOTANICAL REMAINS

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The site of San Juan Pata is located in the central Peruvian highlands, just west of the town of Jauja, at 3450 meters (fig. 1). This site was tested in October of 1986, under the direction of Rubén García Soto and under the Resolución Suprema 110-86-ED granted to Dr. Christine Hastorf. The following site description is abstracted from García's 1988 report.

San Juan Pata is a small, buried site, estimated to be 5.8 ha, with a Formative component of about 1.5 ha. García describes three phases of occupation, early Yacurán, late Yacurán, and Pirwapuquio. Two areas were excavated at the site, Unit A and Unit B (fig. 2). Unit A contained the remains of a rectangular structure with mud walls, and carefully laid floors (see figs.3-6). Unit B contained portions of several stone walls, but as the unit was only about 2 meters square none could be seen entirely (see figs. 7 and 8).

Seventeen soil flotation samples were collected during these test excavations. Eleven come from Unit A, and 6 are from Unit B. The overall density of carbonized plant remains was low, though not unlike that of the early Huacrapuquio deposits at the nearby site of Pancán. A summary of the plant remains found can be found following this text.

UNIT A

Samples were taken from the plough zone (locus 1), the post-occupational fill (locus 2), the floors inside the structure (locus 4), the surface outside the structure (loci 6 and 8), and from eolian sediments under the structure (locus 9). About half of the samples (7 of 11) contained seeds thought to be of the domesticate, Quinoa (Chenopodium quinoa). The size range of these Chenopodium is somewhat smaller than those found in later sites, so this cannot be said for certain. At San Juan Pata most are about 1 mm in diameter, while those in later sites are generally about 1.75 mm in size. The number of seeds from the San Juan Pata samples is small, so it is also uncertain if they are representative of the time period. The seven San Juan Pata samples contained 1 to 5 seeds each. Because of this distribution of quinoa, I suggest that people occupying the site at this time were probably involved to some degree in agriculture. Samples (6 of 11), from the occupation loci also often have different sorts of grass seeds (Poaceae) indicating that grasses were likely brought in purposefully. Small fragments of wood are also found throughout the deposit. Most samples have 1-7 small fragments, while one of the samples from the post-occupational fill (locus 2) had 95.

UNIT B

Samples from this unit were mostly from floor and other surface contexts (loci 14, 17, 19, and 27), and two were from the fill which covered the architectural remains. As with Unit A, Chenopodium seeds were recovered in half of the samples (3

of 6), though each has only 1 or 2 seeds. One small, one medium (Panicum-type) one large (Stipa-type) grass seeds are found in 3 of the 6 Unit B samples, and small amounts of wood also occur, varying from 6 to 12 fragments. In addition, two small fragments of maize (Zea mays) were also found, one in the floor of structure DA-1 (locus 14), and the other in the fill covering the structure (locus 12). This may be due to a different use of these two areas or structures, or may be a function of time, as Unit B contained later period ceramics than did Unit A. But given the preliminary nature of the excavations, it isn't certain if the differences between the two areas are significant.

Overall, there is evidence that the people at San Juan Pata were using different domesticated plant foods as early as the Yacurán phase. Low density may be a reflection of the true botanical content of the site, or may be related to the fact that most of the samples came from floors and surfaces, which are often low in botanical remains in this area. It may also be that time is a factor in the poor preservation of botanical remains at San Juan Pata, as it is a good deal older than other sites dug in the area.

Combined with García's comment on the predominance of camelid bones among the faunal remains we can propose a subsistence base of agricultural products and domestic animals, though it is not possible to say at this time how heavily the population depended upon the various resources.

Further sampling will help in interpreting resource use, and the subsistence base at San Juan Pata.

Reference Cited:

García Soto, Rubén
1988 Excavaciones en San Juan Pata, Jauja, Peru. Ms.

Appendix: Raw data

			S	F	F	C	S	L	P	U	M	A	C
			L	L	L	U	Z	P	P	C	O	N	P
			L	A	O	O	T	A	C	A	A	P	O
I	S	U	O	S	T	T	C	K	H	C	C	E	L
D	I	N	C	H	N	V	O	E	E	E	E	R	U
N	T	I	U	N	U	O	N	R	N	A	A	A	M
O	E	T	S	O	M	L	T	N	O	E	E	C	P
			T	E	D	E	E	T	E	D	E	E	T
			V	E									
9068	223	A	1	0	3177	6	50	.	1	.	.	.	3
9069	223	A	2	.	3179	6	620	.	.	.	.	.	.
9070	223	A	2	.	3180	6	620	.	.	.	.	.	4
9071	223	A	3	1	3174	6	342	.	4	4	1	.	2
9072	223	A	3	2	3185	6	342	.	.	1	1	.	.
9073	223	A	3	3	3184	6	342	.	3	1	.	.	.
9074	223	A	3	4	3175	6	342	.	1	1	.	1	4
9075	223	A	6	.	3172	6	343	.	.	.	.	2	7
9076	223	A	6	.	3173	6	343	.	5	.	.	4	1
9077	223	A	8	.	3178	6	343	.	4	2	1	.	3
9078	223	A	9	.	3186	6	650	.	2	1	.	.	3
9079	223	B	12	.	3183	6	620	1	.	.	.	.	.
9080	223	B	13	.	3182	6	620	.	2	.	1	.	1
9081	223	B	14	.	3171	6	342	1	.	.	.	5	6
9082	223	B	17	.	3187	6	342	.	1	1	.	.	9
9083	223	B	19	.	3176	6	342	.	.	.	.	2	12
9084	223	B	27	.	3181	6	342	.	1	.	.	.	11

Key:

IDNO Unique identification number assigned by the University of Minnesota Paleoethnobotany Laboratory

SITE Site number as assigned by UMARP

UNIT Excavation unit

LOCUS Smallest definable provenience unit

SLASHNO Slash number assigned to point-provenienced samples

FLOTNUM Number assigned at time of flotation

FLOTVOL Volume of soil prior to flotation (in liters)

CULTCONT Cultural Context:

050 Plough zone

342 Floor inside structure

343 Surface outside structure

620 Cultural fill

650 Pre-occupation eolian fill

ZEAKERN Zea mays kernels

CHENO Chenopodium

SPOACEAE Poaceae (grass) family-small

LPOACEAE Poaceae family:large Stipa-type

CYPERAC Cyperaceae (sedge) family

LUMPS Unidentifiable charred plant remains

WOODCT Fragments of wood

POACNODE Poaceae nodes

UNIDSEED Unidentifiable seeds

MPOACEAE Poaceae family:medium Panicum-type

PHASE EYAC-Early Yacurán, LYAC-Late Yacurán

ARCDIV Architectural Division

COLLTYPE Collection type: 101-Bulk flot sample

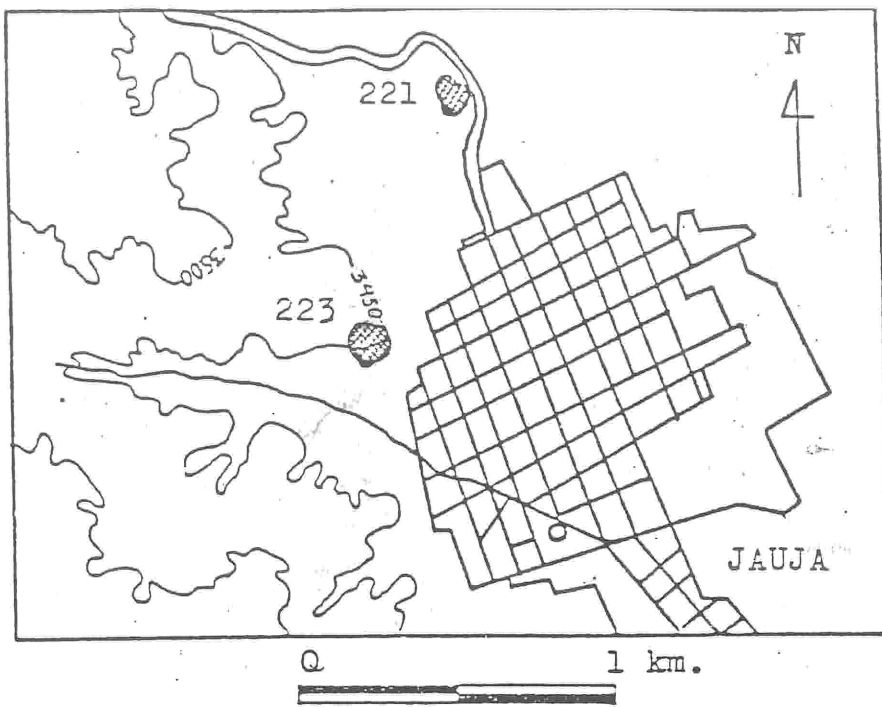


Fig. 1.- Ubicación de los sitios de San Juan Pata (223) y Tukupata (221), ambos con ocupación formativa.

From García, 1988

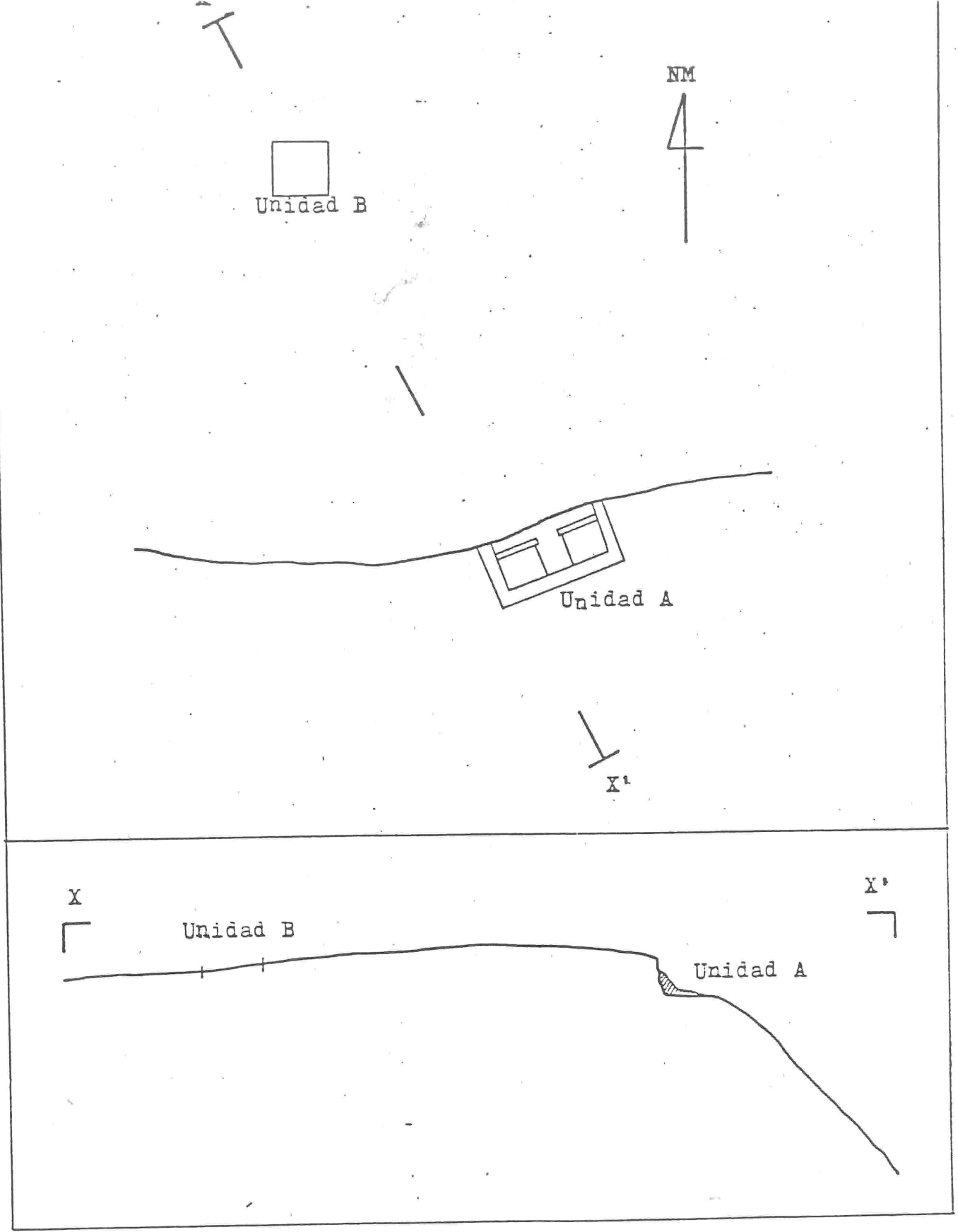


Fig 2.- Planta y perfil de la ubicación de las unidades de excavación en San Juan Pata. Escala: 1/200.

From García, 1988

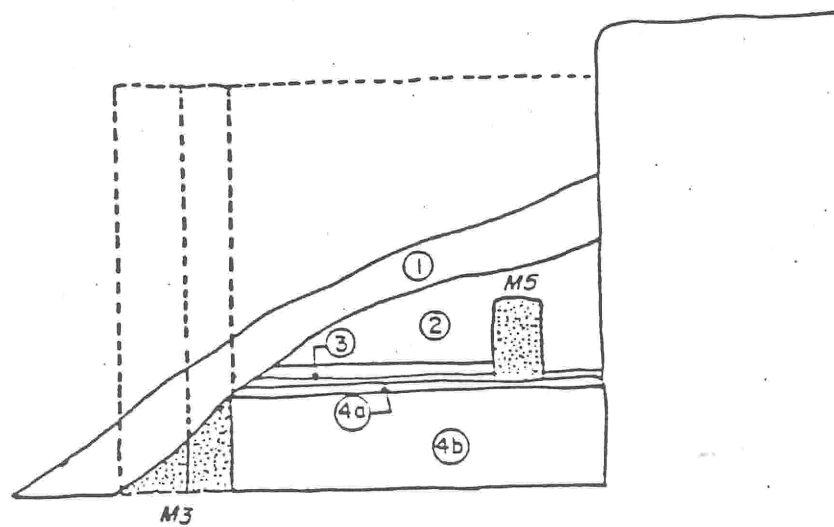
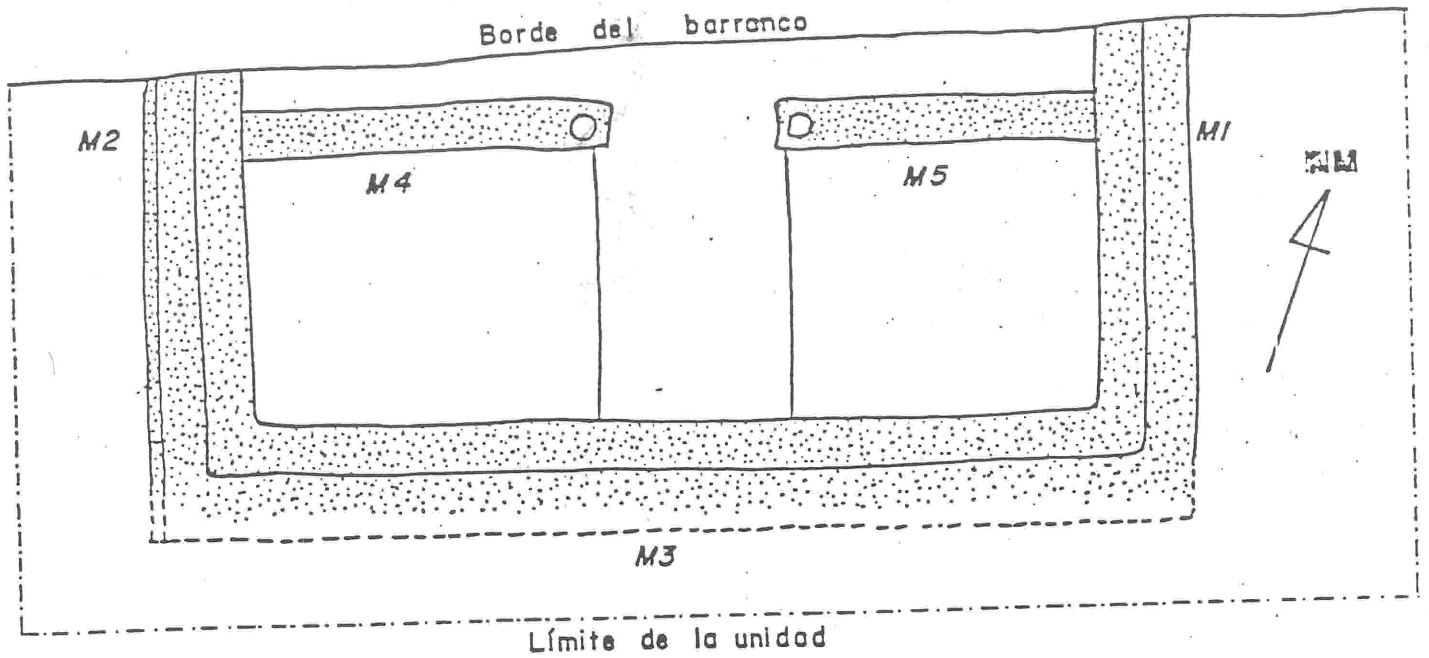


Fig. 3 .- Vista en planta de la Unidad A con la Unidad Arquitectónica 1 (arriba) y perfil estratigráfico de la misma unidad.

From Gavica, 1988

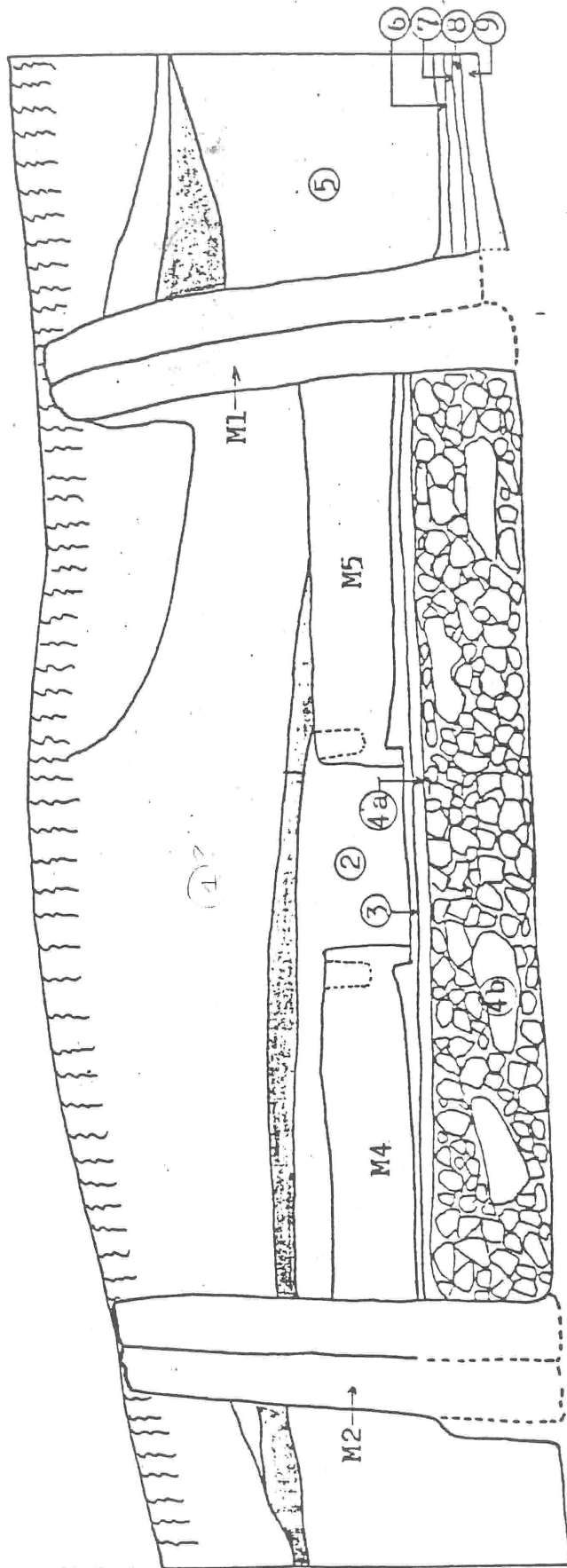
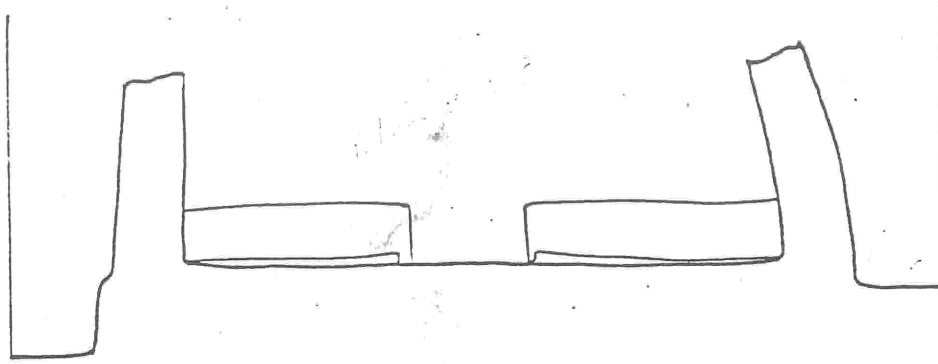
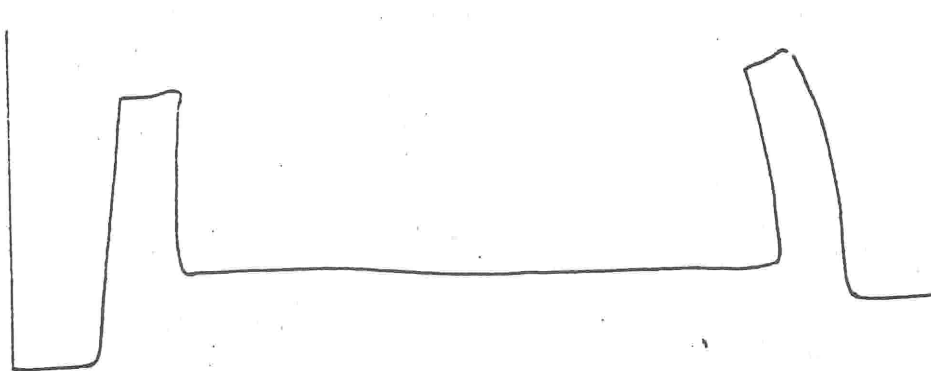


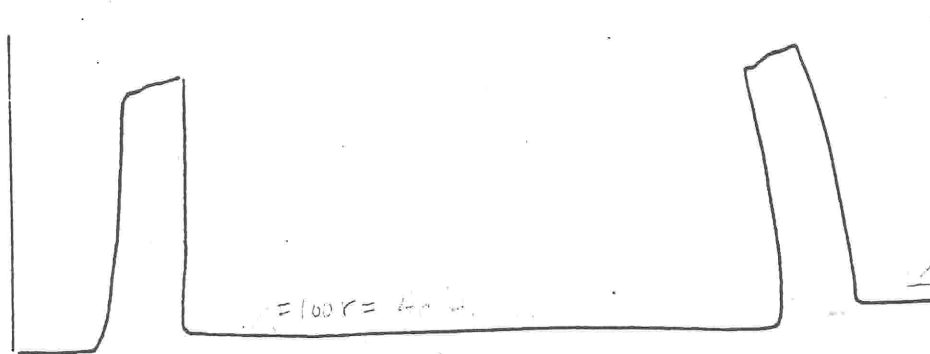
Fig. 4.- Perfil de la Unidad A en el borde mismo del barranco. La capa sombreada es el estrato blanquecino que sella la estructura y corresponde con el estrato 14 de la Unidad B. Escala: 1/25.



FASE 3



FASE 2



FASE 1

Fig. 5.- Fases constructivas de UA-1. Escala: 1/50

From Garcia, 1988

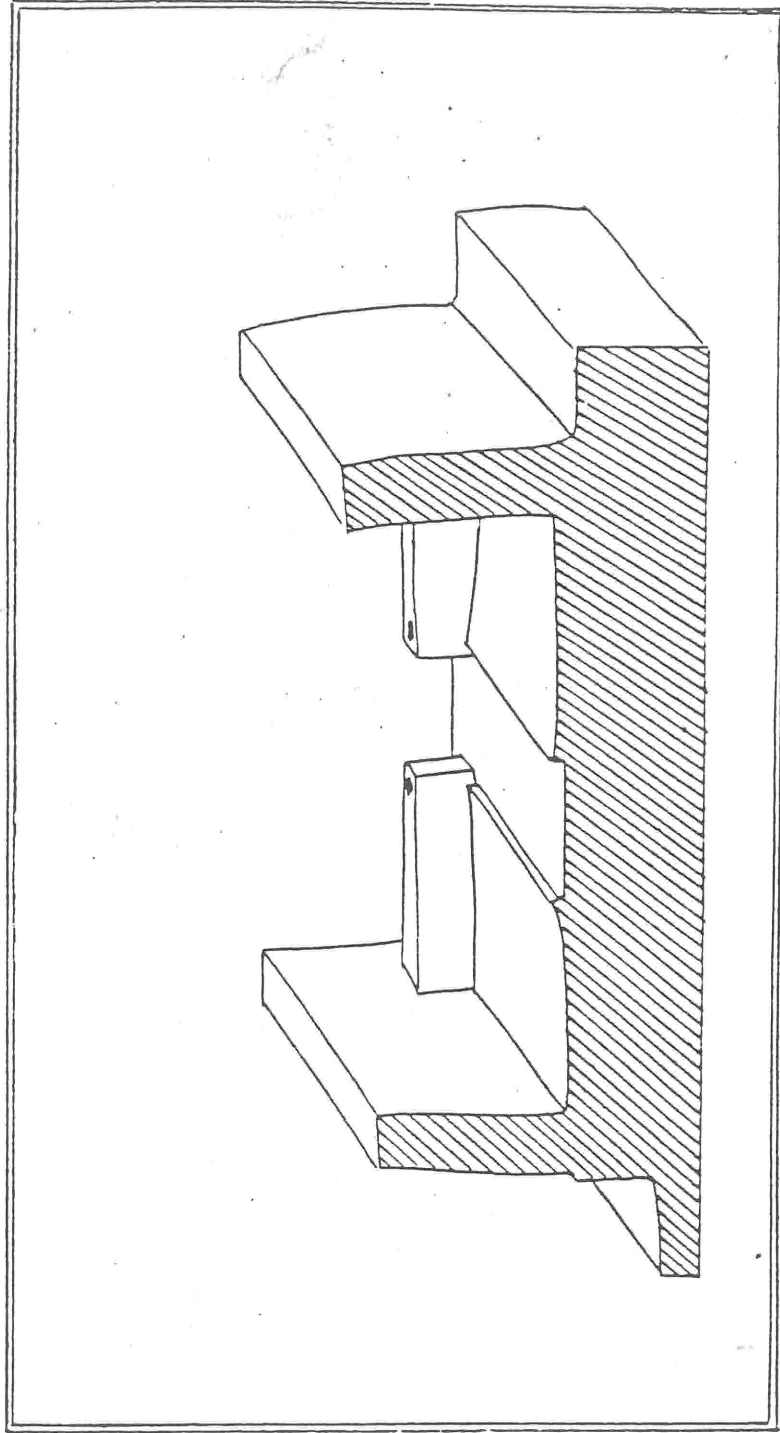


Fig. 6.- Reconstrucción hipotética de la parte de UA-1 excavada, para su fase 3. Escala: 1/50

From Garcia, 1988

N.B. This figure shows strata numbers. Corresponding locus numbers are as follows.

Strata = locus	Strata = locus	Strata = locus
1	17	12
2	18, 30	14
3	24	15-19
4	26	19
5	27	
6	22	

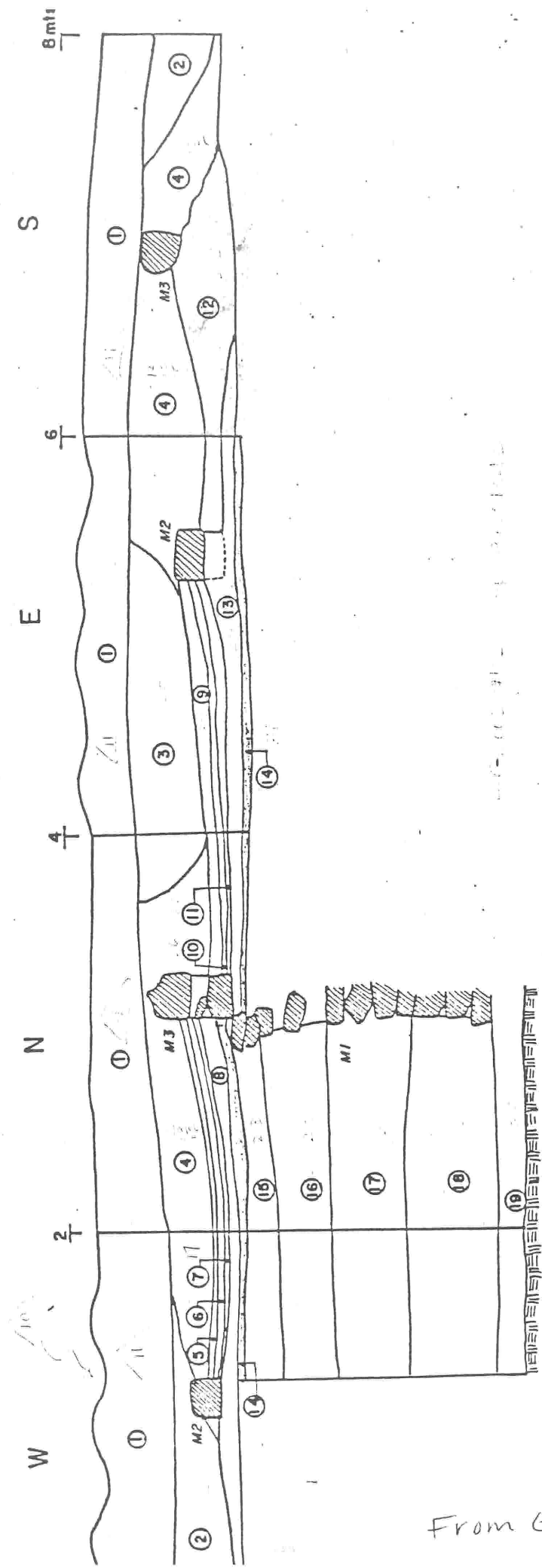


Fig. 7.- Perfil estratigráfico general de la Unidad B.

From Garcia, 1988

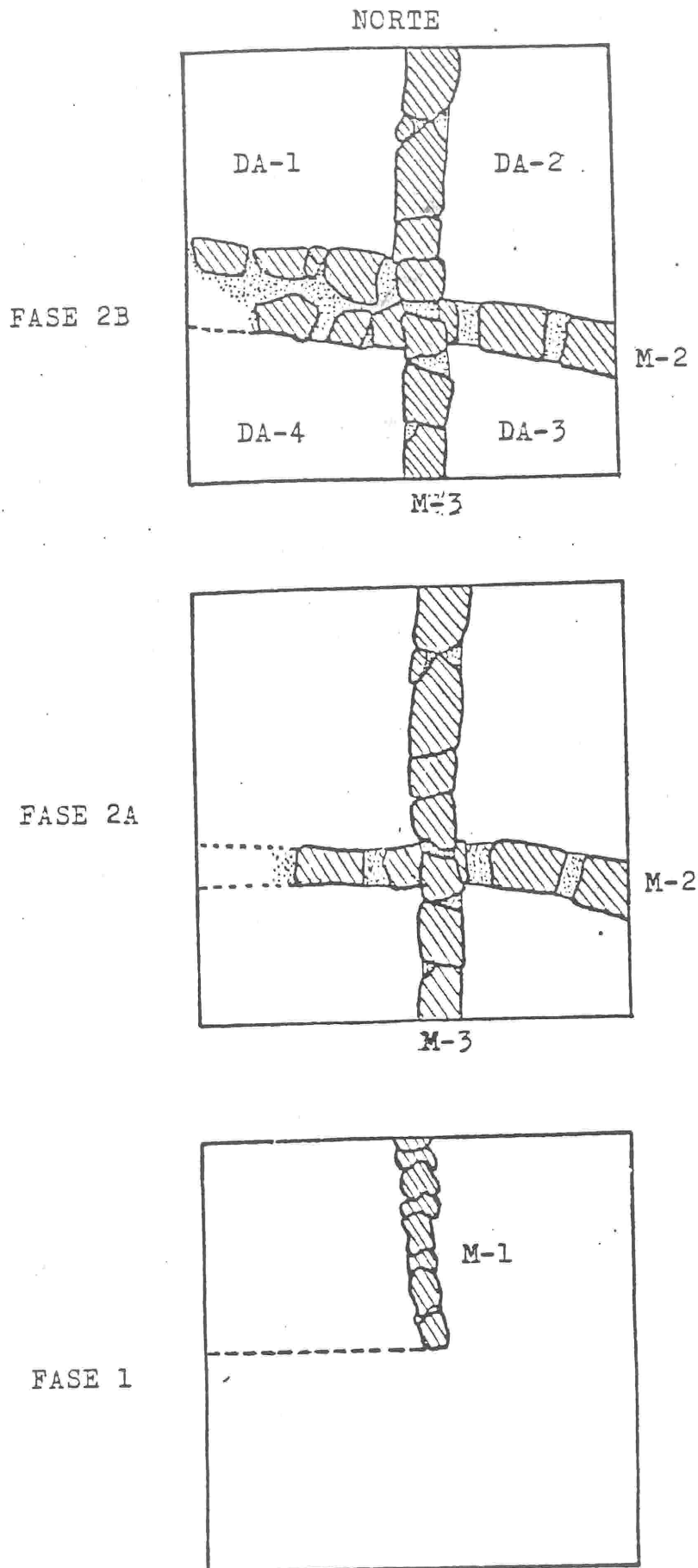


Fig. 8.- Unidad B, fases arquitectónicas; DA: Divisiones Arquitectónicas; M; Muros. (Cuadrículas de 2 x 2 mts.).

From García, 1982