

cantly higher in the former, and the difference increased substantially above pH 5.0 toward the zone known to favor intense protein-zinc interactions.

After rigorous standardization of the experiments, the results were reproducible within 1-percent variation, and the values may be regarded as one of the physicochemical constants of a protein.

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Peralta Complex—a Sonoran
Variant of the Cochise Culture

Last year I reported on the examination of seven camp sites west of Hermosillo, Sonora, Mexico, that represented a prepottery, lithic complex very similar in type to the Cochise culture of southeastern Arizona (1). This material is most comparable to the San Pedro stage of the Cochise, which in Arizona has been dated approximately 3000 to 500 B.C.

During the summer months of 1955, as a research associate of the Instituto Interamericano, I instigated an archeological research program in western Mexico (2). The field survey was concentrated primarily along the coasts of Guerrero and Colima and in northern Nayarit;

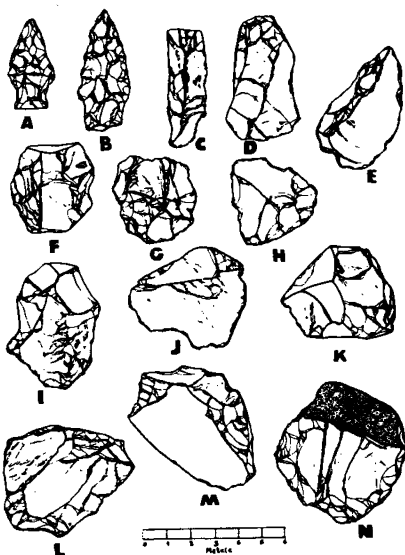


Fig. 1. Artifacts from the "Peralta" Cochise, Sonora: A, B, projectile points; C, D, I, end scrapers; E, J, K, M, single flakes; F, G, H, L, side scrapers; N, cobble end chopper.

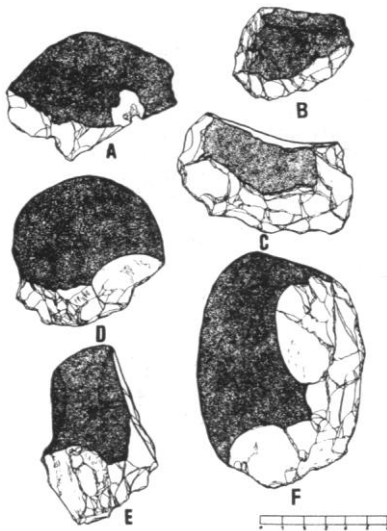


Fig. 2. Several examples of the cobble choppers, the shapes of which are similar to those of the southeastern California region.

Table 1. Types of artifacts.

Artifacts	Sites										Total
	A	B	C	D	E	F	G	H	I	J	
Metates			1	1							2
Manos (including fragments)		2		21	5	2	5		4	2	45
Projectile points			6	2	1	1	1				11
Knife blades			24	23	6	1					54
Scrapers	3		26	28	10	8	2	4	3	2	86
Crude primary flakes			8	11	16		6	7	2	1	51
Cobble choppers			5	12	9		2	2	4		34
Miscellaneous			2	15	2	1	2	2		1	25
Total	3	2	76	113	49	13	18	15	13	6	308

other limited investigations were undertaken in Michoacán, Guanajuato, Jalisco, and Sinaloa. Near the conclusion of the survey, several additional areas were investigated in western Sonora to complement previous studies; as a part of this survey, four of the principal Peralta sites were revisited.

During the original 1953 survey, seven camp sites were located, with the subsequent collection of 146 stone artifacts. These included percussion-flaked side and end scrapers, crudely flaked knife blades, large primary flakes, cobble choppers, and occasionally projectile points, the latter comparable to the San Pedro stage of the Cochise and to the Pinto-Gypsum points of California.

As a result of the 1955 investigation, another collection of 126 stone artifacts was made, primarily to collect all the available surface material before the possible loss of the sites to pending cultivation (Figs. 1 and 2).

In addition, three new, though skimpy, sites were located in the same area, and 36 more specimens were found. Thus, to date, a total of 308 artifacts have been collected from the entire site area. Scheduled plans for a 1957 survey will test-excavate several of the more important sites, and the entire surrounding region will be completely surveyed to ascertain the extent of the distribution of the material.

Surface finds made during the 1955 survey included material similar to that previously described in the preliminary report (1). However, in the second survey, I was fortunate to locate fragments of two metates, none of which had been encountered previously. These fragments indicate two milling types: (i) a shallow basin made of granite and (ii) a smaller, thin, flat slab made of shale. Numerous one-handed, asymmetrical, bifaced manos were found, during both seasons, scattered over most of the surface area.

A brief, preliminary tabulation of the variety of types of artifacts presently discernible from these ten sites is given in Table 1.

The artifacts will be deposited with the Biblioteca y Museo de Sonora in Hermosillo (Fernando Pesqueira, director), when the study is completed.

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References and Notes

1. G. E. Fay, *Science* 121, 777 (1955).
2. These archeological studies were conducted under the auspices of the Instituto Nacional de Antropología e Historia (Eduardo Noguera, director of the Dirección de Monumentos Prehispanicos) of Mexico City, and were financed in part by the American Philosophical Society of Philadelphia (Penrose Fund). James L. Bean, of Englewood, Kan., served as field assistant.

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