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Education:

Springfield Twsp. H.S.

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University of Pennsylvania

Phila., Pa.

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University of Arizona

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Honors and Awards:

National Honor Society

National Merit Scholarship Commendee

Faculty and Staff Scholarship, Univ. of Pa.

Cum Laude with Summa honors in Anthropology, Univ. of Pa.

Ford Traineeship in Archaeology, University Museum, Phila.

Graduate Tuition Scholarship, Univ. of Ariz.

Professional Experience:

Research Assistant. Pinacate Survey. Julian Hayden. 1972-3.

Supervisory Arch. Cottonwood Proj/Natl. Park S. 1972

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Instructor Social Sciences Pima College 1971

Supervisory Arch. Panama Project University Museum 1972

Assit. Arch. Panama Project Univ. of Pa., 1971

Archaeologist Island Field Delaware Arch Board 1970

Field Research Ass. Panama Project Olga Linares 1970

Research Assit. Savich Site John Witthoft 1969

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E. Jane Rosenthal

Letter of Intent, Summer Lithic Field School.

It is my intention if accepted at the Summer Field School to investigate two areas of technology relevant to the increasing interest I have seen in Lower Sonoran Desert archaeology. These two industries are the chopper-chopping tool-scraper complex described by Malcolm Rogers, (1939); and a recently established flaked shell assemblage from the Sierra de Pinacate, Sonora. I hope that by furthering my own knowledge of the production of percussion tools among desert cultures to add to the understanding of adaptation to harsh desert environments and micro-evolution in them.

Although the development of cultures in the Southwest, (Anasazi, Mogollon, Sinagua, Prescott, Hohokam, and Desert,) has been elaborated in numerous monographs there is a dearth of equivalent information on the material culture, the tool kit. Throughout the lower Sonora desert zone, in particular, the scarcity of fine lithic materials, crypto-crystalline silicates and obsidians has produced a lithic assemblage that is not only infrequently found, (due to its reuse as hearthstone, temper, etc., (Haury: personal communication.)) but in many cases is unrecognized by ceramic oriented archaeologists.

During the last eight months I have been afforded the opportunity of working with an artifact assemblage collected by Rogers and Julian Hayden in the Pinacate region of north-western Sonora. This survey collection is composed primarily of flaked stone and flaked shell tools, of Basaltic-Andesite, and Dosina, dunkari, respectively. Because the material is from surface contexts, (this is a depletion-erosional area,) and exists as part of a desert pavement, the interpretation of the pre-ceramic complex must rest as much on the changing stone and shell technology, as on the cultural-ecological situation. Before beginning the analysis of the evolution of material culture in the Pinacate desert eco-zone a knowledge of the inherent variability of lithic material is necessary. How closely can an internalized image of a given tool be replicated in the available material? It is my intention, therefore to attempt through experimentation to establish the degree of uniformity in design and conformity in technology which is possible in the cinder basalt, andesite, and Dosina, under controlled conditions. By this method I hope to be able to establish some perimeters for innovation and change within the assemblage. That these materials are less predictable in fracture, scarring, and wear patterns is a problem that must be dealt with before other cultural-ecological questions can be answered.

I have spoken with Profs. Haury and Jelinek and with Mr. Hayden concerning the possibility that in this assemblage shell is a substitute for crypto-crystalline silicates, and am currently investigating instances of chipped shell use in the New World and Oceania. This effort has met with a notable lack of success. A second intention is, therefore, a description of this type of shell technology. Mrs. Hayden and Crabtree have spoken of the possibility of my bringing unwork-

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ed Dosinia to the Field School for suggestions as to its functions. This, however, is somewhat secondary to my primary intent to work on the problem of expectable conformity within tool assemblages of poor grade andesites and basalts.

I hope that working with less predictable materials like basalts and shell will be of general interest to the Field School and will widen our knowledge of tool technology and innovation.

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