archaeological consequences. It will also require a detailed comparative analysis of a sufficient sample of the archaeology of selected habitats to test, variable by variable, whether the expected archaeological differences are found (cf. Simms 1988). It is very much hoped that continued research in the SWMA will build upon the foundations of this study in reaching this goal.

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Reviewed by:

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This monograph represents an expansion and elaboration of an earlier analysis (Haldeman 1987) of the human skeletal remains recovered from Stillwater Marsh, Churchill County, Nevada, under contract with the U.S. Fish and Wildlife Service. These remains consist of 144 relatively complete skeletons and 272 incomplete skeletons (or single bone elements) exposed by recent flooding in the Carson Sink area of west-central Nevada. As such, the Stillwater skeletal series represents the largest single skeletal series recovered to date from the Great Basin. Brooks et al. have done a solid descriptive analysis of these remains.

The authors seek to accomplish six major objectives in this report. These objectives are: (1) to derive age and sex mortality profiles; (2) to provide an anthropometric examination of these remains to permit comparison between skeletons derived from different archaeological contexts at Stillwater, and between the Stillwater

series and series derived from other parts of the Great Basin; (3) to assess discrete skeletal and dental morphological traits; (4) to examine evidence for growth disruptions; (5) to examine pathological affliction; and (6) to examine questions of homogeneity or population movement at Stillwater across the time frame represented by this skeletal series.

Chapter 1 provides a general introduction to the work, beginning with an explanation of how the authors became involved in this analysis. The chapter then gives an explanation of the nature of the skeletal remains and the numbering system used to identify individual burials and isolated elements, concluding with a section on research design and the objectives paraphrased above. While succinct, this chapter would benefit from thorough reviews of archaeological context and previous skeletal studies in the Great Basin, more clearly defined research objectives and hypotheses to be tested by these data, and a discussion of burial position. Such additions would make this report more useful to the Great Basin archaeologist/anthropologist.

Chapter 2 provides an examination of age and sex distribution of the Stillwater skeletal series. It represents an adequate report of their findings, but the authors do not state what criteria were used for determination of sex, although criteria for age determination are well documented. The results are well presented, but this discussion would be improved by a statement on how age at death was determined for individuals of unknown sex, a reduction of Appendix 2 (Age and Sex Distributions by Locality) to a single table and graph, and a comprehensive examination of mortality profiles from Stillwater with sites from areas outside the Great Basin.

Chapter 3 provides a description and interpretation of anthropometric data. The data are clearly presented, but the discussion unravels when the authors attempt to quantify the data statistically. The skeletal series is divided by sex (male, female, unknown) and by archaeological horizon (Elko, Rosegate, unknown). Descriptive statistics for anthropometric measurements for these subsamples are provided in Appendix 3 (63 pages). Examination of these tables reveals that this division of the Stillwater series results in a severe reduction of effective sample sizes. In fact, many of the anthropometric variables in these subsamples are represented by fewer than five individuals. These data would better be presented as a summary of statistics by sex/archaeological affiliation, accompanied by tables of metric data by in-dividual. Individual metric data are essential for some multivariate statistical procedures (i.e., discriminant function analysis) and future comparative studies would greatly benefit from their inclusion.

The second half of Chapter 3 seeks to address issues of biological homogeneity within the Stillwater skeletal series and between this skeletal series and series derived elsewhere. Analysis of variance is used to test for homogeneity, although this statistic is never referred to by name. The results of these tests are listed in the latter third of Appendix 3. Analysis of variance fails to find significant differences across archaeological horizons at Stillwater or between the Stillwater skeletal series and other skeletal series from Nevada (Humboldt Sink, Pitt Mound). From these results the authors conclude that there is biological homogeneity throughout the period of occupation of Stillwater Marsh represented by these remains, between Stillwater Marsh, Humboldt Sink and Pitt Mound, and even across Nevada as a whole (pg. 41)! In light of such small sample sizes, I suspect that these results are more indicative of statistical insensitivity than biological "homogeneity."

Chapter Four provides a discussion of discrete and continuous morphological skeletal traits. The presentation of data on nonmetric variation follows the well-known criteria of Berry and Berry (1967) for cranial traits and those of Finnegan and Faust (1974) for postcranial traits. Data for continuous morpho-

logical variations, however, refer to no standards of recognition. These latter traits present manifold difficulties in scoring accuracy as they are observations made by artificially dividing a continuous range of variation into discrete categories (i.e., small, medium, large). I am personally wary of these traits, not only because they exhibit variation by age and by sex, but because they are difficult to score consistently. This chapter would be enhanced by tests of intra-observer repeatability and more comprehensive multivariate statistical examinations of biological distance. Such multivariate statistical examinations could be used to test whether or not biological "homogeneity" is represented throughout time at Stillwater and across Nevada as a whole.

Chapter 5, the best chapter in the report, presents an examination of skeletal pathologies and anomalies. Pathological conditions are divided into three major groups: (1) trauma; (2) primary periostitis, inflammatory and nonspecific infection; and (3) problems related to noninflammatory disease, or osteoarthritis (p. 83). Affectation frequencies of these conditions are presented and discussed relative to age and sex. Anomalous conditions such as a calcified larynx and bifid posterior palate also are discussed. The authors note that not only is osteoarthritis common in the Stillwater skeletal series, but the tertiary form of this condition, eburnation, is found in higher frequencies than expected. The authors suggest that such eburnation reflects the consequence of repetitive and habitual activities, and in one of the more interesting passages of this work, draw from ethnographic reports to propose what sort of activities may have produced this condition. A brief glance at developmental stress is made in the closing pages of this chapter through an examination of Harris Lines of growth arrestment. Unfortunately, no attempt was made to determine at what point in life these growth disruptions occurred, or if these disruptions tend to occur at similar ages across this skeletal series.

Chapter 6 provides an examination of dental pathologies and anomalies, emphasizing pathology, some little emphasis on morphology and no information on tooth size. Not surprisingly, the authors find high levels of attrition, periodontal disease, antemortem tooth loss, and alveolar abscessing accompanied by low levels of dental caries. Morphological traits are briefly examined, but pathological conditions such as hypercementosis, dental calculus, hypoplasia, and periodontal disease are also included in their dental morphology tables (Tables 18 and 19). This chapter would be enhanced by comprehensive statistical comparisons of pathology and morphology profiles at Stillwater with other Great Basin skeletal series, as well as by comparisons to series from other parts of the western United States.

This report on the human remains recovered from Stillwater Marsh represents an important work in an area of the United States that has yielded few osteological studies. The Stillwater Marsh skeletal series represents the largest skeletal collection yet recovered from the Great Basin and provides the foundation for many important skeletal analyses. The authors have done a fine job in presenting the basic data necessary for future comparative studies.

The utility of this work would be enhanced by three additions. First, archaeological and ethnographic background sections that would serve to put the study in context would be helpful and could be used to test specific research hypotheses. Second, the report would benefit greatly from use of multivariate statistical analyses of metric, nonmetric, and dental variation. Finally, the authors' claim of biological homogeneity throughout Nevada could be more effectively tested if samples from outside the Great Basin were considered. Despite these shortcomings, this report by Brooks et al. represents a valuable addition to our knowledge of the prehistoric occupants of

the Great Basin, and the data will provide an invaluable comparative base for future research into the biological history of human occupation in the Great Basin.

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The Archaeology of the Afton Canyon Site. Joan S. Schneider. San Bernardino County Museum Association *Quarterly* 36(1), 1989, 161 pp., 61 figs., 26 tables, 8 appendices, $10.00 (paper).

Reviewed by:

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This volume reports on the excavation of the Afton Canyon site (CA-SBR-85), located on the Mojave River, approximately forty miles east of Barstow, California. It is a revised version of the author's Master's thesis completed in 1987 at the University of California, Riverside. The author and her 76 volunteers are to be commended for their many efforts to preserve and protect this significant archaeological property. Over 1,400 hours of labor were contributed by these individuals and the archaeological community is indebted to them.

In the Introduction, Schneider's stated purpose is to examine "a desert prehistoric site where aboriginal people had year-round access to water and associated riparian resources, and thus were capable of a less ephemeral lifestyle than typical desert hunter-gatherer populations" (p. 4). She speculates that semipermanent settlements may have been occupied along this portion of the Mojave River. The author also is interested in the potential interaction among "sedentary or semi-sedentary groups" and "those passing through" this region. With this brief introduction, the author sets the reader's curiosity into motion.

The volume is divided into eight chapters. The first two are the introduction and environmental setting, respectively. Chapter 3 presents a brief ethnographic overview and a discussion of previous archaeological research. This is followed in Chapter 4 by a detailed description of the site, an explanation of field procedures, discussions of stratigraphy, modern disturbances, features, and analytical tasks. Chapter 5 presents the analytical results associated with studies of chipped and ground stone artifacts, vertebrate faunal remains, ceramics, and plant remains. Chapters 6 and 7 discuss obsidian use and source locations, and the chronological placement of the Afton Canyon site based on radiocarbon dates, projectile points, ceramics, and shell beads. Finally, the summary and conclusions are stated in Chapter 8.

The report provides clear and concise statements about the archaeological methods and procedures used to excavate the site. Results of feature excavations, flotation studies of plant and animal remains, lithic reduction sequences, and use of local lithic source materials are especially interesting. The quality of the photographs, feature drawings, artifact line drawings, charts,