

show which of the two countries was the oldest with the most glorious past (Christoffersen, p. 7).

Christoffersen illustrates the continuing interest of national figures in the archeological record of Denmark by reproducing an excavation report for a stone chest prepared in 1862 by King Frederik VII and among the historical reports being inspected and used to update the Danish national archeological records.

Mikkelsen and Larsen briefly describe the historical development of the national archeological recording system in Norway. In 1905 a comprehensive archeological site protection law was enacted in Norway. This was followed by five decades of systematic archeological inventories throughout the country. The remainder of their article describes the current efforts to computerize these records.

Articles describing modern efforts in Poland, Germany, the Netherlands, France, England, Scotland, and the United States provide only the most recent historical developments. In each of these countries, archeological information systems are being supported by government funding or are being undertaken by agencies of the national governments. Arroyo-Bishop and Zarzosa propose a Europe-wide archeological information system that would include "...past and present archival and bibliographic data, survey and site data, finds and museum data, [and] conservation information (p. 134)".

Each article provides documentation that will be useful for historical studies of the development of national systems for the management and use of archeological resources. The objectives and means being used in each country are described clearly and in detail. Readers from the United States will be especially interested in the article by Canouts that clearly summarizes the various national databases containing information about archeological resources and efforts underway to improve the coverage of these databases and access to them. Since the articles date to 1991, concerned readers also will want to consult recent issues of the *Federal Archeology Report* for up-to-date information on archeological databases which are reported on regularly there.

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***Culture and Contact: Charles C. Di Peso's Gran Chichimeca*, edited by Anne I. Woosley and John C. Ravesloot. Foreword by Anne I. Woosley and Allan J. McIntyre. University of New Mexico Press, Albuquerque. 1993. n.p. xxvii+ 299pp., bibliography, index (Cloth).**

by

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**This volume contains 11 papers from the October 1988 seminar, held at the Amerind Foundation, to assess Charles Di Peso's (1920-1962) contributions to American archaeology and particularly to the issues of Mesoamerican-Southwestern interaction and the role of Casas Grandes (Paquime) in that interaction. Two additional papers (Emanuel Breitburg's and Ben Nelson's) were solicited later and are included herein.**

**The Foreword by Woosley and McIntyre provides a brief history of the Amerind Foundation and the archaeological career of its founder, William Shirley Fulton. It is followed by two more background papers by George Gumerman ("On the Acquisition of Archaeological Knowledge:**

The American Southwest and Northwestern Mexico”) and by Carroll Riley (“Charles C. Di Peso: An Intellectual Biography”). Several other papers also contain historical biographical information regarding Di Peso, and these serve to supplement Gloria Fenner’s (1983) obituary of him.

Gumerman discusses the “tenor of the conference and how the papers reflect Di Peso’s role in influencing past and current views of the archaeology of the Southwest and northern Mexico” (p. 3). He notes, “some of the articles in this volume contradict Di Peso” but that this is of little “long-term importance;” what really matters is Di Peso’s role as a catalyst in “generating research on a broad range of topics” (p. 4). Indeed, most of the authors do criticize various ideas of Di Peso’s, and it is unfortunate that he cannot respond. He might have caused several to rethink their arguments.

After reviewing aspects of Di Peso’s career, Riley discusses Di Peso’s *puchteca* concept in some detail. Di Peso’s idiosyncratic spelling (*pochteca* is the common spelling) is one example of what Linda Cordell (“Charles C. Di Peso’s Gran Chichimeca: Comments in Retrospect and Prospect”) calls his “vocabulary of dissent” which she sees (and I agree), in part, as a deliberate attempt to engender argument (p. 221). Riley concludes with two points about Di Peso: first, “one important peripheral contribution was in the area of manners and courtesy” where one could argue vehemently but still do so with civility, and second, his “overriding contribution was that he both preached and practiced a kind of scientific holism” (p. 22).

Several authors base their arguments on the revised chronology for the Medio period, so a brief discussion of Jeffrey Dean and John Ravesloot’s paper (“The Chronology of Cultural Interaction in the Gran Chichimeca”) is appropriate. Di Peso collected 386 tree ring samples from the site. These produced 53 individual, *noncutting* dates (A.D. 1044-1338) for 29 rooms. Di Peso used these data to date the Medio period of Casas Grandes to A.D. 1060-1340. Dean and Ravesloot re-analyzed the tree-ring samples using a statistical technique devised by Robinson and Ahlstrom. This technique estimates the number of sapwood rings removed on the basis of the remaining heartwood rings. Dean and Ravesloot state that they verified the estimated felling dates for the Casas Grandes samples “through comparison with cores from 113 live pine trees growing in mountains south of the site” (p. 92). They conclude that the Medio period chronology should be revised to A.D. 1200/1250-1500 (p. 97).

There is no question that the revised chronology fits better with *some* of the archaeological data such as the dating for southwestern pottery types, e.g., Gila and Tonto polychromes. However, for the following reasons, I am less sanguine about the revised chronology than are the contributors to this volume: first, as Dean and Ravesloot note (p. 91), the sample size is small compared to the size of the site. Moreover, they could not use all of Di Peso’s specimens, so their sample is even smaller than his; second, only two specimens had sapwood present, so it is unclear (at least to me) in the absence of a detailed statement of methodology how one determines the number of missing sapwood rings and also whether any hardwood rings are missing; third, as Woosley and Olinger note (p. 108), only 42% of the site has been studied, i.e., the majority of the site has yet to be excavated, so the likelihood is high that significant numbers of usable wooden beams remain for tree-ring dating; fourth, there is a strong (my evaluation) possibility that earlier building activity took place, which Dean and Ravesloot recognize (p. 96), fifth, the authors are unable to distinguish phases within the Medio period (p. 96), yet we know there are significant differences among Buena Fe, Paquime, and Diablo phase materials; and sixth (hearsay is admissible in reviews), it has been suggested that Dean and Ravesloot’s use of the Robinson-Ahlstrom technique is misapplied.

Clearly, if at some future date this revised chronology is shown to be significantly in error, then the resultant discussions and conclusions based on it will have to be changed. I don't think we have the final word on this matter; and I hope that the authors will publish a detailed account of their entire methodology (including the underlying assumptions) and results so that we can better evaluate the work. Finally, even if this revised chronology is ultimately correct, with so much of Casas Grandes unexcavated, it is still possible that copper bells were produced, macaws were bred, etc. during an earlier occupation phase. Serious consideration should be given to a series of test excavations to obtain some indication of what the rest of the site contains.

Randall McGuire ("Charles Di Peso and the Mesoamerican Connection") reviews some of the history of the development of Di Peso's concept of the Gran Chichimeca and the evolution of his *puchteca* to incorporation of them within a world systems model. McGuire then discusses what he calls "revisionist interpretations of Casas Grandes" in light of the revised Medio period chronology. It's a useful discussion but marred, in places, by flawed logic. For example, McGuire argues that, with the revised chronology, macaws were intended mainly for local use rather than for trade to the north. Yet, at Pottery Mound, a 15th century New Mexican site, macaws and parrots are the most commonly depicted birds in the murals (Hibben 1975:93-94), and the same seems to be true in the murals from the Hopi town of Awatovi (destroyed 1701). The macaws must have come from somewhere; in the absence of a breeding population in either New Mexico or Arizona (Hargrave 1970:53), Casas Grandes is the most likely site. Finally, although McGuire is correct in including me among Di Peso's supporters, my 1987 paper that he cites has almost *nothing* to do with Mesoamerican-Southwestern interaction; it deals with the material benefits that Pueblo priests derive from their control of the socio-ceremonial system.

David Doyel ("Interpreting Prehistoric Cultural Diversity in the Arizona Desert") reviews Di Peso's "O'otam" concept and also provides an overview of the origins of agriculture (actually horticulture) and sedentism in the northern part of the Gran Chichimeca. One of Doyel's conclusions is "If the O'otam concept has any utility as an archaeological concept, it resides in [the] isolative level of analysis" (p. 63). Whether or not one agrees with Doyel, his paper is one of the better ones in the book and well worth reading. Readers should note, however, that, with the revised chronology, Casas Grandes was abandoned in the *fifteenth* century and not the fourteenth, as Doyel states (p. 60).

Beatriz Braniff Cornejo ("The Mesoamerican Northern Frontier and the Gran Chichimeca") provides another review paper. She notes a definitional problem, i.e., it is not at all clear "what constitutes Mesoamerica, the Southwest, and even the Gran Chichimeca," and that the northern boundary of Mesoamerica shifted through time (p. 66). Among her conclusions are that Mesoamerica and the Gran Chichimeca had different subsistence bases — agriculture vs. a mixed economy (p. 69) — and that the two ecosystems were linked by trade in preciosities such as copper and turquoise, within the Greater Aztatlan-Casas Grandes world system (p. 82). One problem is that, in comparing population densities among Mesoamerica, the Gran Chichimeca, and the Southwest, Braniff C. uses outdated information, especially for the Southwest. But it is a matter of degree, not kind, and probably does not affect overall validity of her conclusions.

Anne Woosley and Bart Olinger ("The Casas Grandes Ceramic Tradition: Production and Inter-regional Exchange of Ramos Polychrome") use x-ray fluorescent analysis (XRF) to define a chemical "signature" for Ramos Polychrome. They conclude that Casas Grandes was the center of production for a radius of 70-80km, but that Ramos Polychrome found in the Southwest was locally produced and not traded from Casas Grandes; they also conclude that the Ramos Polychrome from the Dolores Campo Santo site, about 65km southwest of Casas Grandes, was also

locally produced and not traded from the latter (pp. 118-123). The authors make a strong argument. I presume that they will expand the study to other sites using larger sample populations (this report is based on 382 sherds p. 114) to provide a more comprehensive picture of Ramos Polychrome manufacture.

William Doolittle ("Canal Irrigation at Casas Grandes: A Technological and Developmental Assessment of its Origins") provides one of the first systematic surveys and analyses of irrigation systems in the Rio Casas Grandes Valley. There is an apparent, inherent contradiction, however: Doolittle states, "The evidence for ancient canals at Casas Grandes is admittedly sparse" (p. 141), then later states, "In terms of technological development, the valley-bottom irrigation canals at Casas Grandes are unquestionably in a class by themselves ... no other canals as large or forming a system apparently as complex as that near Casas Grandes were in use anywhere else in Mexico ..." (p. 143). J. Charles Kelley notes the same contradiction in his review paper that concludes the volume. Despite this problem, Doolittle makes a good case for diffusion of canal irrigation technology from the Hohokam area to Casas Grandes.

Emanuel Breitburg ("The Evolution of Turkey Domestication in the Greater Southwest and Mesoamerica") argues for the introduction of domesticated turkeys from the Southwest into Mesoamerica, with Casas Grandes perhaps playing a "critical mediating role" in the "intensification" of this process some time after the initial introduction (p. 166). Whether Breitburg's hypothesis for the direction of the initial domestication proves correct requires better control of the early Mesoamerican chronology, especially for Tlatilco; Breitburg has provided the impetus for further research.

Breitburg's paper presumably was extracted from his dissertation. Perhaps the data are in the larger work, but it's curious that no mention is made of the rather elaborate turkey burials excavated by Frank Roberts or the materials from Bc50-51 at Chaco Canyon. It's also worth noting that the Tyler (1979) reference cited by Breitburg, while a good compendium, is a secondary source. A review of primary sources for the Pueblos shows that turkeys are associated with both earth and sky, not just with the earth as Breitburg, citing Tyler, states. This dual association reflects the fact that turkeys live on the ground during the day but roost in trees at night. Thus, turkey feathers are widely used in Pueblo funerary and post-funerary rituals in which the body, buried in the earth, releases the soul (usually after 4 days) which then migrates to the sky to become a *Katcina*, "cloud person," or some other spiritual entity or being.

Ben Nelson ("Outposts of Mesoamerican Empire and Architectural Pattern in at La Quemada, Zacatecas") adds significantly to the growing body of information for this site. Nelson sets three goals: "to explore some implications of a world systems theoretical framework" for models of state formation, social inequality, and other issues; "to suggest how predictions founded in world systems thinking can be evaluated by examining domestic patterning at single sites; and to operationalize my suggestions in a discussion of La Quemada as a Toltec outpost designed to facilitate turquoise trade with the American Southwest" (pp. 173-174). Among Nelson's conclusions are: there is no reason, at present, to conclude that domestic architecture at La Quemada resulted from foreign state sponsorship (p. 187); La Quemada was neither an outright colony nor a Toltec outpost (p. 188); and La Quemada was not involved in the development of Chaco Canyon (p. 188).

Phil Weigand ("The Political Organization of the Trans-Tarascan Zone of Western Mesoamerica on the Eve of Spanish Conquest") bases his discussion on the argument that "Tarascan" is strictly a Late Post-Classic phenomenon (p. 191). He concludes (p. 211) that there are good data

to support the presence of trans-Tarascan “states” (perhaps “statelets” is a better term?), and that there was greater complexity in settlement systems and larger populations than has generally been accepted.

Linda Cordell’s paper (cited earlier) is a fine example of her ability to produce brief but thorough reviews and comments. Cordell (like Riley) gets to the heart of Di Peso’s scholarship and humanism. She sees Di Peso’s “maverick vocabulary - a vocabulary of dissent” as a tool used by Di Peso to develop new concepts and to make people think, to “engender argument” (p. 221). She does not like Di Peso’s term, O’otam, but her discussion of it proves her point: Di Peso’s use of it made her think about the issue and what he was trying to say. The same is true of her reaction to Di Peso’s use of Hohokam, Chichimec, and Gran Chichimeca. Her brief (three pages) discussion of Di Peso’s “maverick vocabulary” is must reading for both students and professionals. Cordell accepts the revised dating of the Medio period Paquime as “secure and consistent with earlier interpretations of it as a fourteenth-century site” (p. 225). Finally, she discusses core-periphery and world systems models that might be used to understand better both the internal operations of Mesoamerica and Mesoamerican-Southwestern interaction.

J. Charles Kelley’s, “Zenith Passage: The View from Chalchihuites,” is also a review and is the last paper in the volume. Kelley divides his discussion into comments about the various papers and comments about the seminar. His review of the papers is pointed and provocative; perhaps deliberately reflecting Di Peso’s style, Kelley’s comments seem intended to provoke further thought and discussion.

It is difficult to review a review, and I won’t try. Kelley echoes some of my comments but discusses the papers in greater depth and provides a wealth of information about various issues. The authors must seriously consider Kelley’s comments as they continue on with their research.

His comments on the seminar are equally, if not more important. His conclusion that Paquime “no longer appears to have had the strong influence on general Southwestern developments that Di Peso visualized, but is still seen as a full participant in Southwestern affairs” (p. 246) reflects his acceptance of the revised Medio period chronology. Kelley apparently assumes that Casas Grandes in the later Viejo period was not a major site, especially within the context of Mesoamerican-Southwestern interaction. This remains to be demonstrated. His argument also assumes that Medio period Casas Grandes was less dominant than was thought to be the case when it was dated earlier. This, too, needs to be demonstrated. Because it was late (Pueblo IV rather than Pueblo III in Anasazi terms) doesn’t mean that it wasn’t as important as once thought. The macaw breeding, copper bell production, and manufacturing of shell materials, for example, are still impressive and significant industries, the importance of which cannot be dismissed or underestimated in terms of trade. In short, Casas Grandes may be later, but it is not necessarily lesser.

This volume is another technically excellent production from the University of New Mexico Press. There are few typographic errors and only one significant production problem; parts of the map on p. 178 (Nelson’s paper) are unreadable without a magnifying glass, most notably the “MAPPING STATION COORDINATES” on the left side. I find it curious that the 11 color plates reproduce the black-and-white photographs in the volume; additional photographs would have been more useful. The inclusion of Di Peso’s complete bibliography would have been most welcome.

The papers in this volume would have produced comments from Di Peso, just as Di Peso's work has stimulated the research reflected here. He would not have shirked from the debate but would have used his "maverick vocabulary" to provoke further thought and discussion. He still might; we'll all just have to wait a while to find out.

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## VI. Activities of Various Academic Gatherings Related to the History of Archaeology

### PROVISIONAL SECTION OF UNIVERSITY ARCHIVES SECTION PROVISOIRE DES ARCHIVES DES UNIVERSITES ICA/SUV

#### Inaugural Seminar

#### DOCUMENTING SCIENCE AND TECHNOLOGY IN AN ACADEMIC SETTING

Lancashire, England - September 12, 1994

The International Council on Archives Provisional Section of University Archives (ICA/S W) sponsored a one-day seminar on the documentation of science and technology in an academic setting. The morning sessions focussed on the appraisal and management of records of modern science and technology within individual archives. The morning presentations will include an address by Helen Samuels of the Massachusetts Institute of Technology and international panel of archivists. The topic for the afternoon is collaborative projects to document science and technology. Speakers will report on collaborative projects which are either housed at universities or which include the participation of university archives. The presentations were in French and English. Adequate time was allowed for discussion with the audience. The seminar was held on the campus of the University of Lancaster, Lancashire, England, in conjunction with the 4th European conference (September 13 through 16) hosted by the Society of British Archivists. For additional information about the conference please contact Marjorie Barritt, chair, Bentley Historical Library, University of Michigan, 1150 Beal, Ann Arbor, Michi-