into the Ocmulgee National Monument, was appointed as Chief Archaeologists of the National Park Service. He and his Park Service colleagues were instrumental in establishing other Park and Monument areas in the southeast, including Moundville, Alabama, the Natchez Trace region in Mississippi, and historical-archaeological in Virginia. In 1940, the Park Service also aided Phillips, Ford, and Griffin in the Lower Mississippi Valley and my work, with R.B. Woodbury, in northwest Florida.

But this spate of what can be broadly subsumed under Lyon's title of "New Deal Southeastern Archaeology' was coming to a close. America's interests were turning in the direction of what was coming to be World War I, and the big Federal Relief programs were over. They had left behind them, though, a considerable legacy.

Lyon devotes his last chapter to a consideration of this legacy. This included the vast substantive contribution to the archaeology of a large part of the United States and the beginnings of a culture-historical understanding of these data. The Southeastern Archaeological Conferences, the nexus of an important system of intercommunication among archaeologists working in the area, were begun, and these have been maintained ever since. The problems confronted at the ways these were met and solved provided a valuable groundwork for the salvage and contract archaeology which was to begin in the immediately post-World War II years and which continued to be carried on throughout the United States. Finally, as Lyon points out, New Deal Southeastern archaeology was the context in which many of the country's archaeologists had their first professional experiences. Although there were not many of us then, there were more than could have begun archaeological careers under the conditions of the Great Depression without the opportunities provided by the Federal Relief programs.

Lyon leaves us with a question, one prompted by a 1990 article by Robert Dunnell. Why has Southeastern archaeology of the 1960s and later not moved more in the directions of 'New' or "Processual' Archaeology or, later, in those of the 'Post-Processual' counter-trends? Did the very heavy culture-historical emphasis of the 1930s New Deal archaeology set up a tradition that was difficult to break? Perhaps, yet other areas, such as the Southwestern United States had such a tradition, and they moved off in these directions. It remains a question for speculation but no easy answers.

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Paradigms of the Past: The Story of Missouri Archaeology, by Michael J. O'Brien, 1995. Columbia: University of Missouri Press, \$29.95, 562 pages.

by

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A volume this massive (562 pages) contains far more substance than any short review can hope to do justice. One can, however, highlight major themes and directions of the tome. I see significant contributions in three areas: (i) the history of the development of archaeological thinking using Missouri as a foil; (ii) some autobiographical exegesis of the development of the author's understanding of archaeology; and (iii) a strongly stated theoretical argument, repeated throughout the volume, that a variety of neo-functionalism espoused by Robert Dunnell, and now practiced by O'Brien and a handful of his Ph.D. students, is the only scientific archaeology extant.

Of the thousands of books, articles, and gray literature contract reports dealing with Missouri, O'Brien tells us that he has used three criteria for selection for inclusion (pp. xx-xxi): (a) how important he evaluates it for the history of Americanist archaeology; (b) how representative it is of the stereotype for the specific period under

discussion, and (c) the age of the research. With regard to this latter, O'Brien indicates that he was far more interested in the period from 1850-1910 on one hand, and 1975-1995 on the other hand, than the intervening 65 years of 1910-1975, so that literature from these two epochs was much more likely to be discussed. He further limits his research to prehistoric archaeological works, setting a cut-off date of A.D. 1541, the period of Hernan de Soto's trek through the Southeastern United States, as marking the beginning of historical archaeology and thus excluded from this volume.

O'Brien warns the reader that (p. xxi) "archaeologists knowledgeable about the intellectual history of the discipline may well find little new here and may rightfully grumble that the discussions are too brief and synoptic. " In part this is due to the fact that O'Brien does not attempt to identify new intellectual horizons or trends, but borrows quite openly from the themes identified by Gordon Willey and Jeremy Sabloff in their seminal history of the discipline, and to a lesser extent from institutional studies by David Meltzer and Curtis Hinsley. His goal is not to identify new perspectives, but rather investigate how he sees work in Missouri fitting into existing models. In addition, O'Brien reports that (p. xxii) "I did not make much use of archival documents", but rather limited his investigations of sources to those available on the shelves at his university. In spite of these caveats, I found that there were interesting additions to the history of the discipline. O'Brien pinpoints contributions based on events in Missouri, previously underappreciated, and in addition, in a work of this magnitude, it is almost inevitable that the reader will find discussion of an aspect of evolution of the discipline previously overlooked.

The intellectual history begins with the "golden age" of scientific societies before 1880. O'Brien charts the contributions of the Academy of Science of St. Louis from its inception in 1856, and the later turn-of-thecentury development of strong regional contributions by the Missouri Historical Society, and the "Knockers", a subset of the local St. Louis chapter of the Archaeological Institute of America. The early work of Albert Carl Koch at the Kimnswick Mastodon site (known as Sulphur Springs in Koch's 1838 report) is detailed, and placed in context with respect to the later development of interest in the possible association of terminal Pleis-tocene fauna with humans. Antiquarianism seems to be the theme of this period, with a variety of outsiders arriving in Missouri to buy artifacts for their museums, beginning with Horatio Rust in 1877, who excavated a series of mounds to get pots to sell to the Peabody Museum at Yale, and then subsequent individuals involved in collecting museum specimens on behalf of institutions such as the Peabody Museum at Harvard, the Smithsonian Institution, and Phillips Academy-Andover.

O'Brien's next phase runs from 1880 to 1910, and is one in which he sees the Bureau of American Ethnology dominating Americanist archaeology with their world view. He views the BAE (p. 123) as a Washington elite, trying to force its party line "down the throats of the supposedly less well informed masses in the provinces." At times this seems overemphasized, informed no doubt by the current political rhetoric, wherein Washington is depicted as the problem with the country in the 1990s. One of the occasional scholars with the BAE, Gerard Fowke, is viewed by O'Brien as being responsible for the "birth" of Missouri archaeology. Fowke is seen as the first individual working in Missouri who provided good documentation of his excavation, particularly through the use of numerous excavation photographs published with his monographs, and is noted (p. 128) as providing a new linkage between the local learned societies (such as the three mentioned in the previous paragraph) and national institutions that up until his work had been missing.

For the period of 1911 to 1940, O'Brien has elected to discuss one of the cases of fraud, the incision of a mastodon/mammoth line drawing on a bone from Jacobs Cavern, in MacDonald County in Southwest Missouri, as an important indicator of intellectual and archaeological context of the era. Phillips Academy-Andover sent a circular to newspapers around the country in 1902, seeking reports of interesting specimens to acquire and important sites to excavate. The local response to this ad resulted in an excavation project at Jacobs Cavern in 1903 by Charles Peabody and Warren K. Moorehead of the Phillips Academy, featuring the first use of an excavation grid in Missouri, with I meter by I meter units systematically removed front to back. In 1921, Jay L. B. Taylor reported finding a bone with the proboscid incision in the remains of the Phillips Academy excavation cuts. The American Museum of Natural History sent out Nels Nelson in 1923 to re-excavate the site. In 1924, a geologist, Vernon C. Allison, conducted additional tests at the site, and by a fancy manipulation of the growth rate of stalagmites in the cavern with tree rings in California and figures for ice advances in Europe, estimated the age of the finds as pre-dating 16,000 B.C. This controversy hit the pages of the American Anthropologist in 1928, but died a quick death. O'Brien speculates that it had little impact because Nels Nelson handily refuted it, but even more important, I should think, is the fact that just the year before Figgins had reported on the first good evidence at Folsom, so archaeologists of the period were less enamored of these dubious claims, now that they had a solid candidate for human Pleistocene megafauna associations.

More important for Missouri Archaeology in this 1911 to 1940 epoch was the founding of the Missouri Archaeological Society in 1934, as an outgrowth of the research conducted by the Committee on State Archaeological Surveys, under the guidance of the National Research Council. O'Brien reports that early growth of the society was extremely rapid, with 253 members enrolled by 1938.

The next two chapters deal with the periods of 1941-1960, and 1961-1976. As O'Brien warned us in his preface, these are period of less interest to him, and thus beyond trying to highlight some examples of major projects during these 35 years, little is said with respect to the history of the discipline (although much is debated regarding other themes, discussed below). Among O'Brien's concerns in this period are what he believes to be the misapplication of McKern's midwestern taxonomic method by Carl Chapman (p. 212), which has resulted an incredible growth in phase names which are improperly defined in O'Brien's estimation.

The last two chronological chapters deal with the late 1970s, 1980s, and 1990s, and here we find the discussion a good deal more limited, in that this includes the time period that O'Brien has been doing archaeology in Missouri, and he finds it more difficult to see trends in historic perspective. These chapters are, however, very instructive in detailing the growth of O'Brien's view of archaeology.

A second major theme revisited throughout the volume is the issue of "interpretation" vs. "explanation". For O'Brien, interpretation is (p. 5) "concocting a story that accommodates the data." Interpretation is (p. 12) "storytelling." Interpretation is (p. 321) "creating a 'just so' story that appears to accommodate the available data." And further in this same paragraph, O'Brien states that "Unfortunately, Missouri archaeology in the late 1960s and 1970s was replete with just-so stories. "O'Brien excoriates most of the archaeologists who have worked in the state since 1940, particularly singling out Carl Chapman, for adhering to just-so stories. Interestingly, as an after-thought in his preface (p. xxvi), O'Brien ruefully acknowledges that "I know that what I have written is a story....which is ironic because I come down so hard on storytelling in archaeology."

Explanation, on the other hand, is predicated upon (p. 5) "deriving an answer based on theoretical expectations." Explanations (p. 11) are "derived from a body of theory, not from any experiential realm." Explanations (p. 426) can only be derived from "evolutionary" or "selection-based" archaeology. In O'Brien's opinion, this latter clearly is not the "new" or "processual" archaeology of the 1 960s and more recently, an approach that he argues (p. 429) "was dying a natural death" by the middle of the 1 970s. Processual archaeology is seen (p. 255) as essentially doing nothing more than introducing a more rigorous approach to interpretation. For O'Brien, his version of evolutionary archaeology offers (p. 431) the "best chance" for Americanist archaeology to become scientific. To help the reader grasp what he means by "explanation", O'Brien provides the example of the mechanics of Woodland-period cooking vessel walls. O'Brien argues that in his evolutionary archaeology (p. 472), "the place to start is function", that artifacts, as functional objects, are shaped by selection. In this pottery study example, he is interested in thermal conductivity, resistance to thermal shock, and resistance to mechanical shock. Pottery temper becomes the focus of this operation, with specific changes in temper seen as functioning to change thermal conductivity, thermal shock and/or mechanical shock parameters. O'Brien believes that "explanation" thus details the functioning of temper selection in providing the new ceramic ware with superior traits, which he believes provides some kind of survival edge for the pots, and thus a competitive advantage,

which results in a shift in pottery wares as an example of natural selection, the survival of the fittest. In short, explanation here is little more than a kind of neo-functionalism, recloaked in terminology borrowed from biological evolution.

The third approach one can take to this volume is to employ the text to investigate some of the historical patterns of development of the author himself over time. As a major player in Missouri archaeology, the context of O'Brien's intellectual perspectives will be important for understanding directions and trends in the studies of the state taken by O'Brien and his students. O'Brien began his work in the epoch when it was suddenly enormously popular to give archaeological excavations studious names with corresponding use of acronyms Many of us fell into that pattern, as there was something intuitively more satisfying, more indicative of rigor, in identifying an excavation as, for example, the "Meramec Archaeological Research Project" or "MARP", rather than the "Meramec dig". Thus O'Brien's first major project was the "Cannon Reservoir Archaeological Project". Although O'Brien refrains from mentioning it, local detractors delighted in the acronym of this project, and project personnel soon opted for a new name. O'Brien notes that Scotty MacNeish and Kent Flannery had been making waves in the field with ecologically-based projects in Tehuacan, Oaxaca, and Ayacucho; ecological studies were the hot new bandwagon of the late 60s and early 70s, and the Cannon Reservoir crew climbed aboard, re-naming their project the Cannon Reservoir Human Ecology Project. Thus much of O'Brien's early focus was upon fitting his research into a human ecology paradigm.

Although the Cannon Reservoir project was essentially a large federal contract, O'Brien does not consider this to be typical "applied" or "contract" archaeology. His position reflects one frequently held by research-based scholars viewing applied versions of their discipline, a perception that somehow applied work is less appropriate than pure research. He does not see much hope in establishing professional standards, saying that (p. 334) "Self-policing has never worked in archaeology, and it never will."

O'Brien's work with Dennis E. Lewarch in the Cannon Reservoir was pivotal in shaping his theoretical shift in the 1980s. Lewarch was a Ph.D. student of Robert C. Dunnell, and O'Brien credits Lewarch with introducing Dunnell's ideas to him. Thus throughout the volume we find Dunnell quoted when it comes to issues of applied or contract archaeology, interpretation vs. explanation, and other concepts. Early in the text O'Brien indicates that he finds the most exciting archaeology done in Missouri is that of the 1980s and 1990s, and that he can identify little of note from 1940-1975. Carl H. Chapman and his students conducted the majority of archaeology from 1940-1975; O'Brien several times tells the reader that Chapman was not interested in explanation, but rather in interpretation and "storytelling". Thus while the reader may not agree with O'Brien's assessment of Chapman's contributions, the reader can understand why it is that O'Brien believes there is little worth high-lighting for the period of 1940-1975.

O'Brien, and his Ph.D. students such as Gregory L. Fox, Thomas D. Holland, and Robert J. Hoard, along with Dunnell and a few of his students, such as James K. Feathers, have been attempting to employ the neo-functionalist explanation paradigm in their researches in the "bootheel" of Southeast Missouri. From O'Brien's perspective the most exciting and important archaeology of the 1980s and 1990s is that which has been conducted in southeast Missouri by these players. Understanding O'Brien's theoretical leanings, this makes perfect sense. Thus we can understand how it appears to him that no one except his students is conducting significant research within the state: if the criteria is one of employing neofunctional explanations, then the pool of candidates will be limited. O'Brien notes that of individuals whom he considers to have conducted the proper kind of explanation (p.426), "many of whom work or have worked in Missouri"; and argues that with this proposed approach that (p. 427) "archaeology has finally reached the point where it can become a science."

O'Brien has been unfairly accused of having personal animus against other archaeologists in Missouri. This is an unfair characterization in terms of his written work, as O'Brien's very strong conviction in the rightness of his position on "interpretation" vs. "explanation" strongly colors his perception of the rest of the archaeological community. If we view that community through his eyes, his theoretical perspective, then his evaluations make perfect sense. It is important to do so; Walter W. Taylor had much to say in his 1948 "A Study of Archeology", but his manner offended many of the archaeologists of the day, to the point that many later historians of the discipline believe that the importance of Taylor's message was lost in the calor over his delivery technique. O'Brien's has a position that should be considered by Missouri and Americanist archaeologists; we must not let his categorization of the rest of us as nothing more than "just-so storytellers" blind us to the arguments he has to make.

The neo-functional model that O'Brien hews to also explains why he has little patience for post-processual archaeology as well as other trends, such as ethnic studies and gender archaeology. In O'Brien's words, such studies (p. 381) "demonstrated once again that in the absence of theory, archaeologists would borrow anything on the market, even goods offered by social historians. "It is O'Brien's contention that contrary to the position of many processual archaeologists, we will never be able to understand prehistoric institutions (p. 461) "such as social organization and kinship systems".

This thick tome makes a real contribution to understanding how and why archaeology was conducted in Missouri. For the most part it does not attempt to tell us what the archaeology of Missouri is, but rather who the practitioners were, and the context in which they worked. As such, it has broad importance for the study of Americanist archaeology.

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

The 53rd Plains Anthropological Society meeting was held last October 18-21 (1995) at Laramie, Wyoming. The symposium on the River Basin Surveys program was a poster session entitled "A Survey of the Survey: River Basin Surveys in the Plains 1945-1995." It was organized by Lynn M. Snyder and Deborah A. Hull-Walski, both of the Smithsonian Institution.

The Gordon R. Willey-Society for American Archaeology Symposium on the History of Archaeology: "Synthesizing American Archaeology" was held on 13 April 1996 during the 61st Annual Meeting of the Society for American Archaeology. Papers were presented by David J. Meltzer, Jeremy A. Sabloff, G.R. Willey, Jon Mueller, R.C. Dunnell, William A. Longacre, and Patty Jo Watson. The symposium was to honor the archaeological career of Gordon R. Willey who has contributed so much to the development of Americanist archaeology.

VII. Announcements/Sources Relating to the History of Archaeology

Tim Murray writes that plans are now well advanced for establishing a network for exchanging information on the history of archaeology in Australia. Those interested should contact Professor Tim Murray by e-mail at 101514.3200@compuserve.com.

Pamela Smith advises that her edited book comprised of papers on the history of Canadian archaeology will appear in print in the not to distant future. Below is a brief section listing of the contents of the soon-to-appear volume:

## **Regional Histories**

## Author

Contribution

Richard S. MacNeish

"The MacNeish History of Canadian Archaeology"