

## BOOK REVIEW



*Hayden Flour Mill: Landscape, Economy, and Community Diversity in Tempe, Arizona.* Volume 1: *Introduction, Historical Research, and Historic Architecture* by Victoria D. Vargas, Thomas E. Jones, Scott Solliday, and Don W. Ryden; Volume 2: *Archaeology, Synthesis, and Management Summary* by Robert J. Stokes and Victoria D. Vargas; Volume 3: *Hayden Flour Mill Historic Preservation Plan* by Teresa L. Pinter, Don W. Ryden, and Victoria D. Vargas. 1320 pp., 3 volumes, References Cited, 16 Appendices. Archaeological Consulting Services, 2008. \$5 (CD).

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**T**he venerable Hayden Flour Mill complex, a Tempe, Arizona, landmark for about a hundred years, has recently been the subject of an intensive documentation study of its archaeology, architecture, and history. The project was carried out at the request of the city of Tempe with some financial support from the Salt River Pima–Maricopa Indian Community. The city plans to transfer the property to a developer for the purposes of adaptive reuse.

The Hayden mill project was begun by Archaeological Consulting Services, Ltd. (ACS) in 2006. Its three-volume, 1,300-plus-page report was completed in late 2008. Throughout this well-illustrated report are hundreds of figures and tables that include maps, photographs, and drawings, most of which are in color. Sixteen appendices are located in the three volumes.

Volume 1 of the report contains the introduction (chapter 1), historical research (chapters 2–12), historical architecture (chapters 13–19), references cited, and four appendices.

Chapter 1 describes the project's research themes, of which there are three: landscape, economy, and community diversity. The thirty-two research questions are outlined in Table 1.4, along with the appropriate investigative components: historic research, archaeology, and historic architecture. The themes and research questions are revisited in volume 2, chapters 21, 27, 28, and 29, and volume 3, chapter 34.

Chapter 2 presents the approach to and scope of historical research.

Chapter 3 gives the history of Charles Trumbull Hayden, founder of the Hayden mill, from 1825 to his death on February 5, 1900. Hayden began his

business ventures in Arizona in 1856 at Tubac, and shortly thereafter, in 1858, he established a successful store and freighting business in Tucson. The size and extent of the latter are somewhat understated here. By December 1873, he had closed his Tucson operation in favor of Tempe, where he started business activities in 1870. By 1874, his flour mill commenced production. Family members, who succeeded him at the mill, continued to have some role in the management of the business through 1991, when the mill was sold to outside interests.

A lengthy exposition on the historic context of flour milling in Arizona, and elsewhere, is included in the report as chapter 8. The development of flour milling in the New World, mill technology, and brief histories of Arizona's pioneer flour mills are included. References to Sonora's economically significant flour mills, which provided much of southern Arizona with flour before the advent of the railroad, are exceedingly brief. No recognition is given to the mills at Terrenate and elsewhere in Sonora. Further, the mill history (see Table 8.2) does not provide all the relevant information available about Tucson's mills, which would have been useful to other researchers of this poorly documented aspect of early Arizona food production. Nevertheless, it is fair to say that this is one of the better chapters in the report, because it summarizes, for the first time, much useful information about Arizona's flour milling industry.

Native American and Mexican-American ethnic history in Tempe is explored in chapter 10. Members of the Akimel O'odham (Pima) and Piipaash (Maricopa) communities and the Mexican-Americans of the area are all intimately tied to the history and development of Tempe and the Hayden mill. Native American farmers provided large quantities of wheat to early Arizona flour mills, and the Mexican-Americans were the primary construction workers and operators of the Hayden mill complex over its lifespan.

An introduction to interviews of owners and employees of the mill is found in chapter 11. The interviews, which are reproduced in Appendix C, provide invaluable information about the mill complex and its workings.

The historic architecture of the Hayden mill complex is introduced in chapter 13 and expanded upon in detail in chapters 14–19. These chapters provide the construction history of the mill complex (14), the architectural reconnaissance of the property (15), a detailed temporal and spatial analysis of the milling equipment (16), preservation priorities (17), rehabilitation recommendations (18), and a brief overview of work accomplished at the complex (19). These seven chapters nicely convey the significant architectural and technological aspects of the flour mill complex. Of note is the early use of reinforced, poured-in-place concrete in the construction of the mill.

Volume 2 contains 11 chapters, references, 9 appendices, and hundreds of figures and tables. Chapters 20 through 30 detail the results of the archaeological investigations at the Hayden Mill complex, the Terraced Butte site, the Hayden Ditch, and the spur tracks and related structures of the Phoenix and Eastern Rail-

road segment at the mill. Chapter 21 discusses the research design introduced in volume 1, chapter 1; field and laboratory methods; field results of Phases 1 and 2; and geology and geomorphology. Chapters 22–25 describe the excavation of the four sites mentioned above.

Chapter 26 is devoted to a description of the prehistoric and historic artifacts recovered. The prehistoric artifacts, primarily from the Terraced Butte site, totaled 540. The prehistoric section of the report inexplicably includes two sherds of probably historic Native American ceramics and an oyster shell said to be used for making buttons. In this context, the shell has nothing to do with buttons and everything to do with food. Fresh or pickled oysters in the shell were common Arizona fare in the late nineteenth century. These objects should have been included in the historic artifact discussion and analysis.

The artifacts from the historic sites total 7,341 with an MNI of 2,577 from both feature and nonfeature proveniences. Only 38 of the 138 pages in this chapter are devoted to the historic artifacts—clearly not enough to provide the reader an opportunity to understand the artifact types present, the date ranges represented, how they were used (or not) in assigning dates to the excavation units, or how they reflect site and feature function, among other questions.

Some artifact dates are found in the text, but many have no citations, so the reader cannot judge the reliability of the dates presented. Further, the five date-line graphs show artifact date ranges from a few proveniences, but we are not told which artifacts the ranges represent. Thus, the date graphs are essentially meaningless to the reader.

A comprehensive summary of all of the historically related artifacts and nonartifacts (fauna, pollen) is absent in chapter 26 and elsewhere in these reports. Each artifact class and type of nonartifact remains is identified and reported separately. In the archaeological summary (chapter 27), only a couple of sentences summarize the 7,341 historic artifacts.

Eighteen of the research questions in chapter 1 list archaeology as a component that potentially contributes relevant data. Most of the research questions are repeated in chapter 28. There is virtually no mention of historic artifacts in this chapter.

Volume 3 contains six chapters, numerous figures and tables, references, and four appendices, all led off by an executive summary. This volume provides the preservation plan for the Hayden Flour Mill complex (chapter 31), presents the legal basis for historic preservation planning (chapter 32), and in chapter 33 discusses the coordination of historic preservation with zoning and other aspects of modern urban life. Chapter 34 summarizes the architectural information derived from the archaeological and architectural research. The relationship between preservation, education, and public involvement is explored in chapter 35.

Recommendations for the future, management priorities, and implementation strategies, basically the bottom line for the project, appear as the final

chapter. Although brief, the recommendations provide serious guidance to the city of Tempe for the proposed adaptive reuses of the mill complex.

Finally, each of the three volumes has its own References Cited section, which makes them reader-friendly. Another plus is that all three volumes are very well illustrated. From these reports, the reader will acquire a lot of information about Charles Trumbull Hayden, his flour mill complex, flour-making technology, and the architecture of the mill complex. The prehistoric artifact presentations appear to be comprehensive and seem to be considered throughout the report. The reader will not receive a similar cohesive understanding of the historic material culture excavated at the mill complex.