PREFACE

Just over 100 years ago, John Wesley Powell, on his historic expedition down the Colorado River, saw "the ruins of two or three old houses" near the mouth of Bright Angel Creek. This was the first recording of archaeological material in the Grand Canyon, initiating a century of observations of prehistoric surface remains and leading to an awareness that between A.D. 1050 and 1150 the Grand Canyon had been extensively occupied by prehistoric Pueblo people.

The excavation of Powell's Bright Angel ruin in 1969 by a School of American Research crew provided the first opportunity to study the details of a prehistoric canyon settlement. The analysis of the recovered material presented in this volume reveals an intriguing story. Twice small groups of Pueblo farmers, searching for arable land on which to grow their corn, beans, and squash, moved into the rugged inner canyon where Bright Angel Creek meets the Colorado River. They were motivated by temporary increases in annual rainfall that allowed this marginal agricultural land to be farmed. The first occupation, between A.D. 1050 and 1060, resulted in a single pithouse. In the second occupation, between A.D. 1100 and 1140, a larger number of people constructed a five-room pueblo and a ceremonial kiva. The lives and struggles of these early Grand Canyon pioneers are reflected in the stones, bones, and pottery found at Bright Angel Pueblo.

The excavation of the Bright Angel site was part of a program of Grand Canyon archaeological exploration directed by Douglas W. Schwartz between 1967 and 1970. Several years of preliminary survey had established a broad overview of Grand Canyon prehistory that provided a base for the excavations (Schwartz 1966). In addition to Bright Angel, sites at the mouth of Unkar Creek and on the Walhalla Plateau of the canyon's North Rim were also excavated (Map 1).

Many people and institutions have contributed their talents and resources to the Bright Angel project and deserve the authors' thanks. The National Park Service provided financial support for both the excavation (contract no. 14-10-7:931-34) and the final preparation of the manu-



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script (contract nos. CX800030026 and CX001-7-0031). Douglas Scoville, chief archaeologist of the National Park Service, deserves special thanks for his appreciation of the difficulties encountered in the last stages of the research project. In addition, the following members of the National Park Service staff were very generous with their advice and aid: Larry Henderson, Warren H. Hill, David C. Ochsner, Howard B. Stricklin, Chester A. Thomas, and Rex L. Wilson.

Michael Marshall, John Beal, and Christina Marshall, all at that time on the staff of the School of American Research, conducted the excavation of the Bright Angel site in the summer of 1969. After excavation, Don Morris of the National Park Service stabilized the site.

Contributors to this volume were many. John Beal drafted a major part of the ecology chapter, which also reports work by Arthur H. Harris (Museum of Arid Land Biology, El Paso, Texas) on identification of faunal remains and by Peter S. Bennett (K. V. L. Laboratory, Grand Canyon, Arizona) on the analysis of pollen samples from Bright Angel. Jane Whitmore conducted a reanalysis of the chipped-stone retouched artifacts, and their descriptions in Chapter 5 are a result of her work. Michael Marshall classified all other lithic material, as well as the pottery collection. Bone artifact identifications and descriptions are credited to Richard W. Lang, many of whose valuable ideas and suggestions are also reflected in the ceramics chapter. Peter Eidenbach examined the human skeletal remains to determine age, sex, and pathology.

The room plans illustrating Chapter 3 were drawn by Charlotte Hollis and all other line art was done by Winfield Coleman. David G. Noble photographed the artifacts and printed all field photographs used here for illustration. Hildreth Taylor and Linda Heck contributed editorial assistance in the early stages of manuscript preparation.

Finally, special thanks are due to John D. Beal, Richard C. Chapman, and Richard W. Lang for their advice and suggestions throughout the course of laboratory analysis and manuscript development. We also thank Albert H. Schroeder for his helpful review of an early draft of this manuscript.

The Bright Angel work has answered many questions about Grand Canyon archaeology, but as is the case with any research project it also leaves many questions unanswered. Problems still remaining include: the origin of the settlement's population; the impact of isolation on the culture's development; whether the occupation was seasonal; and the effect the move into Grand Canyon had on the culture of the immigrants. The answers to some of these questions, as well as further details about the canyon's prehistoric people, will emerge from the subsequent volumes planned for this series, reporting excavations on Unkar Delta and the Walhalla Plateau. Combined, these volumes will provide a stronger base for understanding Grand Canyon prehistory.

> Douglas W. Schwartz March, 1979 Santa Fe, New Mexico

INTRODUCTION

Bright Angel Pueblo is located in north-central Arizona, on the north side of Granite Gorge in Grand Canyon National Park. It lies to the east of the confluence of Bright Angel Creek and the Colorado River and approximately 40 meters (130 feet) west of the Kaibab Suspension Bridge (Fig. 1). Built on a talus slope crossed by the present-day Kaibab Trail, the site is situated at an elevation of approximately 770 meters (2,525 feet), roughly 9 meters (30 feet) above river level (Fig. 2).

ARCHAEOLOGICAL BACKGROUND

The earliest written description of Bright Angel Pueblo dates to 1869, when John Wesley Powell, who also gave Bright Angel Creek its name, discovered the site during his expedition down the Colorado River. Powell (1875:87) wrote that he had found

the ruins of two or three old houses, which were originally of stone laid in mortar. Only the foundations are left, but irregular blocks, of which the houses were constructed, lie scattered about. In one room I find an old mealing stone, deeply worn, as if it had been much used. A great deal of pottery is strewn around, and old trails, which in some places are deeply worn into the rocks, are seen.

Although later expeditions visited the area, the site was not further mentioned until in 1953 W. W. Taylor assigned it the Museum of Northern Arizona site number NA 5602. Taylor also published a tabulation of a surface sherd collection (Taylor 1958:25) in which he recorded the presence of Dogoszhi and Sosi Black-on-white and Tusayan Black-on-red. A later reference to the Bright Angel site was made by Robert Euler in 1969, when he recorded the site in the Prescott College Archaeological Survey, assigning it the number "Arizona



B:16:I(PC)." Euler commented, "The ceramic evidence from the structures near the river again indicated an early Pueblo III Kayentan occupation" (Euler 1969:16).

In addition to Bright Angel Pueblo, several other sites in the area have been described in various reports. West (1923:80–81) and Euler (1969:16) both recorded small granaries in the cliffs above the Bright Angel site. One of these, GC 625, was excavated by the School of American Research crew in 1969 (see Appendix A). R. B. Stanton (1965:157) had noted on a sketch map a group of ruins on the west side of Bright Angel Creek, but because the School of American Research study showed no sites in that area, it seems likely that Stanton erred in referring to Bright Angel Pueblo itself. Finally, a number of sites, both habitation and storage, are known from upper Bright Angel Canyon and its side canyons (Judd 1926:139).

THE BRIGHT ANGEL PROJECT

The 1969 Bright Angel project was conceived and conducted through the cooperation of the National Park Service and the School of



FIGURE 2. General View of Bright Angel Pueblo, Showing Its Location on a Talus Slope above the Colorado River.

American Research in celebration of the John W. Powell Centennial. When the School began its excavation, the site was in poor condition. Parts of the walls had been used in the construction of the mule trail adjacent to the site, and most of the surface material had been removed by members of previous expeditions and by visitors to nearby Phantom Ranch. Nevertheless, it was decided to excavate the site on the basis of its archaeological significance as an example of isolated inner-canyon settlement and on the basis of its historical interest as a discovery of John Wesley Powell 100 years earlier.

Because of time limitations, only a cursory survey of the immediate region was possible. Two storage sites, the granary GC 625 and a smaller one not assigned a field number, were found in the cliffs of the inner gorge near the pueblo. A brief ecological survey of the local geology and plant and animal life was also conducted. In an effort to obtain information about prehistoric sites, present animal life, and recent area history, interviews were conducted with local personnel of the National Park Service, the United States Geological Survey (USGS), and Phantom Ranch. Upon completion of excavation, the site was stabilized by the National Park Service and opened to the public.