

CONTEXT

Resurrecting Sir Aurel Stein from the Cholistan Desert

by Mohammad Rafique Mughal

Sir Aurel Stein gained international renown, and a knighthood, as an archaeologist and explorer of South and Central Asia during the early twentieth century. Between 1901 and 1916 he traveled some 25,000 miles by horse and foot in the study of caravan routes and the ancient sites along their ways, while in the service of the Indian Government's Archaeological Survey, which he headed from 1910 to 1929. His exploits included the discovery (for the Western world) of the Thousand Buddha Caves at Dunhuang, at the northwestern end of the Great Wall of China, with its enormous cache of well preserved manuscripts—the library of the monastic community—that had been walled-up in a niche in the eleventh century. He had a special interest in the invasion route of Alexander the Great, about which he published a book in 1929 (On Alexander's Track to the Indus), which continued until the end of his life; his final study appeared in the Geographical Journal (London) in 1943, the year of his death in Kabul, Afghanistan. During the two years before his death he was engaged in field work in the Cholistan Desert of what is now Pakistan and in the Indian state of Rajasthan. Mohammad Rafique Mughal, in the article that follows, discusses the fascinating story of the exploration of the Cholistan, from Sir Aurel Stein to his own surveys of the 1970s and 1990s, and the contributions of its explorers to the study of the human history of the Indus Valley. —Ed.

Six decades ago, Sir Aurel Stein (Fig. 1) undertook an archaeological survey in the Cholistan desert of Pakistan, which is located in the former Bahawalpur State in the central Indus Valley (Figs. 2–3). By that time, he had already documented a number of ancient sites and monuments along the dry bed of the Ghaggar-Hakra River in the adjoining Indian territory of Rajasthan, and had traveled up to the border of Bahawalpur State. To continue his survey along the remaining old river course, called Hakra in Pakistan's territory, Stein started his explorations from Bahawalpur on February 14, 1941 (see Fig. 3). He first traveled east along the riverbed and then turned back to explore the

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Figure of Buddha, carved in living rock, in Yungang Grottoes near Datong, northern China. Date: A.D. 460-471. Story on pages 6-7.

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Figure 1. Sir Aurel Stein in 1929.

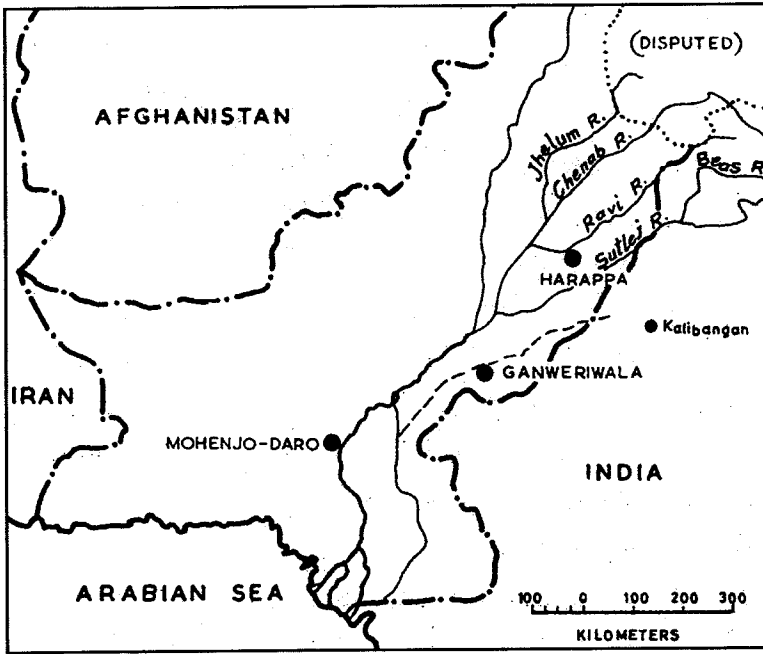


Figure 2. Map of southern Pakistan and surrounding countries. Ganweriwala, a large urban site, lies in the Hakra River valley.

tion without illustrations. By comparing the itineraries of Stein and Field (1959) the mystery of Kalepar was resolved. Kalepar was found to be an old name of Field's "Bhoot," an Early Harappan site (ca. 3,200–2,600 B.C.) Furthermore, other than the sites that Stein identified as belonging to the "Harappa Culture," it was not possible to place the remaining sites within a known time frame on the basis of mere description.

Stein must have prepared illustrations with his report which are still not traceable in India or Europe. Incidentally, it is the only work of that great Asian explorer of the twentieth century that has remained unpublished in its original form.

Following Stein's pioneering survey, A. Ghosh in the early 1950s carried out further reconnaissance within the Ghaggar-Hakra region in Bikaner, India (see Fig. 3). Although he added more sites to the known list, information from the two surveys was not integrated, and a full account of Ghosh's work was never published. Other Indian explorers and excavators who have since worked in or near the area are Katy F. Dalal, B. K. Thapar, B. B. Lal, K. N. Dikshit, J. P. Joshi and R. S. Bisht.

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southwestern area. Finally, he returned to Bahawalpur on March 11 because of excessive heat. He later returned to Cholistan and excavated at three sites: Sandhanawala Ther, Kalepar, and Ahmadwala Ther (not shown in Figure 3). He had intended to return for still more work in the area, but his special interests in the movements of Alexander the Great led him to southern Baluchistan (southern Pakistan, west of the Indus) between January and March, 1943. He then continued on to Kabul, the capital of Afghanistan, where he died at the age of 81 on October 26, 1943, and where he was buried.

Stein had written a detailed account of his surveys before he died, and had sent the manuscript, "An Archaeological Tour along the Ghaggar-Hakra River, 1940-42," to the Director General of the Archaeological Survey of British India at New Delhi. A summary account of his findings also appeared in England (Stein 1942). In 1955, the American archaeologist Henry Field, who conducted archaeological reconnaissance in western Pakistan (1959), happened to see the manuscript of Stein's report in New Delhi, microfilmed it, and sent a copy of it to the Library of Congress in Washington, D. C. (Stein 1943), where I consulted it while writing my Ph.D. dissertation (completed in 1970) at the University of

Pennsylvania. The manuscript had no maps, drawings, or photographs to illustrate the text, so that there was no independent way to identify the cultural association of the sites; we had only what was stated by Stein. In one case, the identification of several sites hinged on the identification of a single site, Kalepar. That is, Stein compared a number of sites with a place he called Kalepar, but it was not possible to determine its cultural associa-

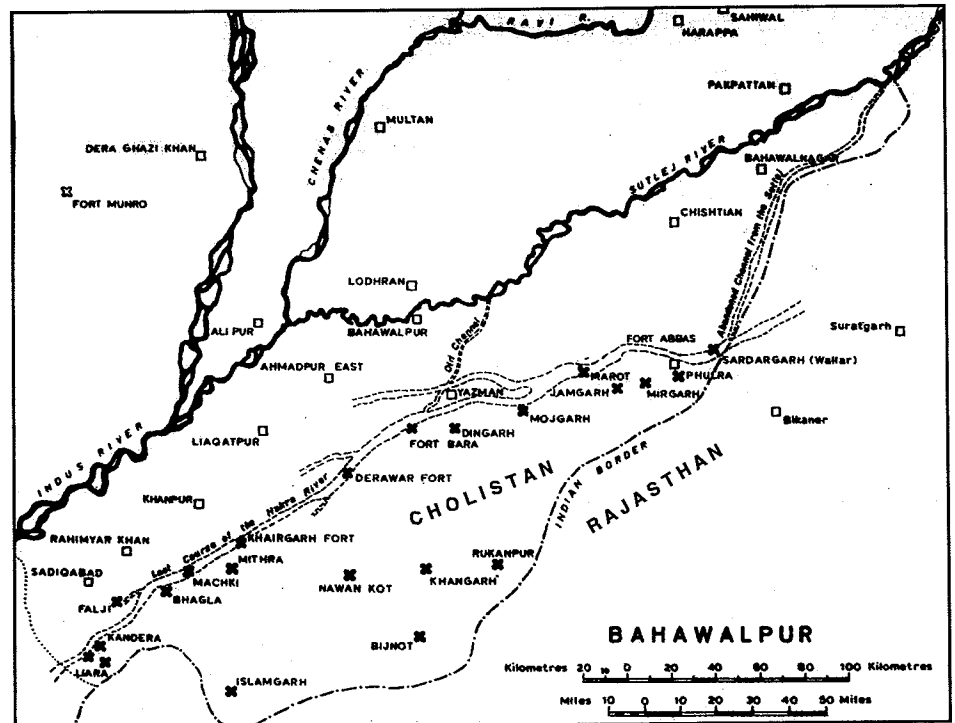


Figure 3. Map showing the former State of Bahawalpur in the central Indus River valley, and the principal course of the Hakra River, which skirts the western edge of the Cholistan desert.

Stein's survey zone in Pakistan was further studied by Field and by F. A. Khan, who visited eleven sites in the 1950s. The first major and comprehensive survey of Cholistan, however, was launched only in 1974, soon after my appointment as Director of Explorations in the Department of Archaeology, Government of Pakistan. Because of the great archaeological potential of this region, the survey under my direction continued for four annual field campaigns all along the old course of Hakra River in Bahawalpur (Fig. 4). More than 400 sites were documented at that time, and 37 sites were added in the 1990s when my research was supported by The World Bank. The sites investigated included almost all the sites named by Stein, and hundreds of others in addition. The strategy and methodology adopted in exploring the desert region produced important results (Mughal 1997), which are summarized below.

- (a) A continuous sequence of the Indus civilization from the fourth to the second millennium B. C. was revealed.
- (b) A new cultural component of the beginning of the Indus Civilization defined as Hakra Wares added at least five hundred years to the cultural sequence going back to the fourth millennium B. C.
- (c) For the first time in South Asia, the archaeological sites were classified into functional cate-

gories on the basis of material evidence such as specialized, craft-related industrial sites, as distinct from habitation, multi-functional, and sites of temporary (nomadic) occupation.

- (d) Based on size, a four-tiered hierarchy of settlements (defined as cities, towns, villages, and nomadic sites) emerged throughout the life history of the Indus Civilization in this region.
- (e) All the sites could be securely dated and related by comparison with known sites in India and Pakistan.
- (f) The discovery of another large urban center, Ganweriwala, which covers more than 80 hectares in area, has changed the age-old concept of "twin" capitals of the Indus Civilization. Situated between Harappa and Mohenjo-Daro, it has revealed a pattern of equidistant location of Indus cities in the Greater Indus Valley.
- (g) The data from Cholistan pointed to new directions for future research and generated several new fieldwork programs in the Greater Indus Valley, including in India.

These new discoveries with their significant implications made it imperative to resurrect Stein's manuscript and publish it with illustrations of pertinent materials collected by him and by his successors in Pakistan and India. What was needed was a fresh interpretation of the sites Stein recorded sixty years ago in the light of the new data now available. In the meantime, we had determined that all of Stein's unpublished materials from Pakistani and Indian territories of the Ghaggar-Hakra River were in New Delhi, India. Impressed with the need for this new research, the British Academy in 2000 awarded a modest grant from the Stein-Arnold Fund to enable me at least to begin the work. The first step to be taken, clearly, was to prepare for publication the relevant material from my own surveys in Pakistan, because large and representative samples from all the sites had been collected, which sufficiently

compensated for an absence of archaeological materials in Pakistan from Stein's survey.

The collections made during the survey of 1974-77 had been stored in Fort Lahore, in Lahore, Pakistan, and all were made available for our study through the courtesy of Saeedur Rahman, current Director General of the Department of Archaeology, and Saleemul Haq, then Director of Archaeology at Lahore. A small group of assistants, including some of my former students at Punjab University, and six draftspersons/artists, joined me at the fort in the (sizzling hot!) summer of 2000 to sort, catalog, and draw the artifacts we selected from the survey collections. Fortunately, two large halls of the Pakistan Institute of Archaeological Training and Research at Lahore Fort were provided for our work (Fig. 5). It was easy to select sites visited by Stein because almost all the site names had not changed; the rest of the work was staggering in its scope and detail. In all, materials from 44 sites were studied, selected, and cataloged. Measured drawings of 1,235 specimens of pottery were prepared, inked, and transferred onto large film sheets. In addition, 1,045 other artifacts were cataloged and photographed.

In associating the newly collected and analyzed material with Stein's site descriptions and interpretations, it is important to keep in mind that in the sixty years since he wrote his comments much has changed in our understanding of civilization in the Indus valley; even terminology has changed. When Stein was writing, Harappa and Mohenjo-Daro, still the most famous sites in the Indus Valley, were the two main reference points to compare and date the sites on the Hakra River. The Early Harappan/Indus, an early formative phase of the Indus Civilization, was not defined until the early 1970s. Similarly, our understanding of the so-called "Post-Harappan" period, which was traditionally associated with the last occupation at Harappa, has changed as a result of research undertaken during the past half

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Figure 4. Rafique Mughal and assistant, Shireen Pasha, in the Cholistan Desert.



Figure 5. Pottery and other artifacts from sites in the Cholistan Desert region first visited by Sir Aurel Stein were selected for illustrations and cataloging at Fort Lahore in summer 2000.

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century. It has become increasingly clear that the Harappan culture survived well into the middle of the second millennium B.C. in certain regions of the Greater Indus Valley, now recognized by distinctive assemblages of the Late Harappan culture. Stein's identification or interpretations of archaeological materials need, therefore, to be understood within the present framework; what might at first appear to be an error on his part, may be merely the absence at the time of more recently developed concepts. And if Stein's descriptions were sometimes insufficient to identify certain sites, the data gathered during 1974-77 provide a reliable basis for revising his conclusions and placing the sites in their proper context. As examples in line with these observations, a few comments on Stein's manuscript follow.

(1) Of 58 sites mentioned by Stein, ten are architectural remains (forts and tombs) of early historical (fifth century B.C. to seventh century A.D.) and Medieval (eighth to eighteenth centuries A.D.) periods, as understood in South Asian history. The remaining sites include twelve small places marked by scatters of potsherds (camp sites, as identified later in Cholistan). It proved to be impossible to locate these last sites on a map because of the absence of coordinates and adequate description.

(2) Stein's identification of the sites of "Harappa Culture" was correct in a general sense. His list, in fact, includes sites of the Mature and Late Harappan periods, as has now been confirmed by ceramics collected from Stein's sites in 1974-77.

(3) Stein's red "grooved" pottery of

"Kalepar" type has now been identified with the more recently designated, and extensively distributed, Kot Dijian wares of the Early Harappan period, about 3,200-2,600 B.C. Field called this site "Bhoot," but his itinerary matches that of Stein. The site still carries its old name, Kalepar, and represents an Early Harappan settlement. Stein correctly observed that Kalepar yielded a "new" kind of pottery, and that it compared with ten other sites. Kot Dijian assemblages were recognized in the 1950s as forming an early developmental phase of the Indus Civilization (Khan 1965).

(4) The Hakra Wares sites, named after their discovery and concentration on the Hakra River, are the oldest known settlements on the Ghaggar-Hakra River, representing a common cultural tradition in the Greater Indus Valley already established by the beginning of the fourth millennium B.C. These wares, handmade vessels with mud and grit applied to the surface, were first identified in 1972 at Jalilpur, about 80 miles southwest of Harappa on the Ravi River (Mughal 1974), where their presence overlapped the Kot Dijian occupation and therefore marked the first settlement of Early Harappan times. More recently typical Hakra ceramics have been found at Harappa dated about 3,400 B.C. and also recognized in contexts of the early fourth millennium B.C. in the Bannu Basin of the Northwest Frontier region of Pakistan (Khan *et al.* 1990); they may be somewhat earlier elsewhere. Stein found six sites distinguished by what is now recognized as Hakra Wares.

(5) Stein commented on the presence at two sites of an important type of pottery that has more recently

come to be known as Painted Grey Wares (PGW). Their appearance in Cholistan at the beginning of the first millennium B. C. is now believed to coincide with the arrival of Aryan-speaking people. The PGW also mark a time of environmental change; the Ghaggar-Hakra River dried up completely at about that time, as the environment of the Cholistan region deteriorated to conditions similar to those of the present.

(6) Stein recorded a number of nameless sites marked merely by a scatter of potsherds. As noted above in (1), such sites, in fact, represent temporary nomadic occupations; it has become apparent in recent years that campsites of a nomadic population existed throughout the human history of the Indus Valley. These people effectively utilized the desert environment in the same way as present-day nomads in Cholistan, who raise camels, cattle, goats and sheep. Stein, however, did not discuss the implications of his nameless sites.

In closing, we may note that work relating to Stein's unpublished papers has been completed regarding sites and materials in Pakistan; that work, however, is only half of the task at hand. Data on sites Stein located in Indian territory remain to be studied, and archaeological materials from those sites still need to be cataloged and illustrated. Additional financial support, however, is needed for us to continue the project in India.

Mohammad Rafique Mughal, former Director General of Archaeology and Museums of Pakistan, joined Boston University as Professor of Archaeology in September 2000.

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