Until recently, Oman's rich history was only partly documented. GIS is helping write the missing pages, as Paul Yule explains.

When the mainstream of archaeological research in the Sultanate of Oman began in 1972, virtually nothing was known of its successive ancient cultures. In 1977, the German Archaeological Oman Expedition began to identify and locate the ancient copper mines of Magan/Makkan, long known from cuneiform tablets written in the Sumerian and Akkadian languages. The texts date from the mid-third to early second millennia BC and reveal the economic importance of copper. Indeed, the Sumerians mythologised Magan, Dilmun (Bahrain and its hinterland), and Meluhha (lower Indus), as lands of plenty.

Magan's location in Oman and south-west Iran became clear only in the 1980s. Archaeologists had already roughly dated the successive cultures mentioned above, but those of the subsequent final Pre-Islamic period eluded them. In 1980, C.Weisgerber and B.Vogt excavated a grave that contained significant finds. Here, in a Pre-Islamic cemetery at Samad al Shan, 140 km south of the capital Masqat, handmade pottery and lathe-turned stone bowls were unearthed, together with iron weapons. Excavation continued, revealing many - even hundreds - of such graves.

By-product
Our GIS began in the late 1980s simply as a by-product of research on the Samad Culture and evolved as a card file to structure references and projects relating to 1,159 archaeological sites in the entire Gulf area. This catalogues the place names; geographic coordinates; type of site; periods represented; whether excavated or surveyed; year(s) worked; nationality of investigators, and site-related literature.

The database can present, select, and sort attributes in literally any way. For example, generating a chronological or geographic distribution for sites of a particular kind or period.

Geodata sources
A great many archaeological sites on the Arabian/Persian Gulf littoral have been nominally known for some time, but their documentation varies, ranging from the elaborate, to the

Left: Entrance to a communal tomb of the Umm an Nar Period (2700-2000 BC) at al Ayn.
In scope and dimensions:

the terms "cairns" and "beehive tombs" often cited in the sources. The first is neither unequivocally definable nor datable, and the second can date to the Hafit and/or Umm an Nar Period.

The dates of certain sites, e.g. the cemetery at Amlah, al Fueda (of the Northern Pre-Islamic Culture from centuries around the time of Christ), are not specified if they do not fall into a major category. Triliths (an alignment of standing stones) have been assigned to the Samad Period for purely chronological reasons. They are identified with a "T" in the data list. Similarly, shell midden are datable from the "Hafit and/or Umm an

With addition is the so-called Late Northern Pre-Islamic Culture (LNPC), as at Amlah/al Fueda.

As new data become available, our CIS is reviewed and updated. One must be careful how the GPS instrument is set for publication at a later date.

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PAUL YULE Ph.D. is an archaeologist at Heidelberg University in Germany and can be reached at phone/fax: 49-951-5191616; e-mail: paul.yule@t-online.de

Data describing the 'nature' of research are, perhaps, the most difficult to list as surveys are frequently undertaken at random during idle phases of excavation. The final column indicates the nationality of discoverer, writer, and/or project sponsor.

GSS outlook

While information describing all the known archaeological sites is now available, there is a surprising lack of research data relating to the Batinah plain. This is and was the most heavily populated part of the Sultanate. Striking research lacunae include Palaeolithic, Ubaid, Hellenistic, Parthian, and Sasanian Period/Cultures. A new set of published data containing new information from the Ministry for National Heritage and Culture, who have cooperated with us over the years, in particular Dr. Ali b. Ahmed b. Bakhit al Shanfari.

PAUL YULE Ph.D. is an archaeologist at Heidelberg University in Germany and can be reached at phone/fax: 49-951-5191616; e-mail: paul.yule@t-online.de

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