In early 1933 some very beautiful pots with very long beak-shaped spouts were sold in the antiquity market of Paris. Chronologically these jars, painted with elegant geometric animal and plant decoration in red on a cream background, belong to the Iron Age of Iran. Such very high quality decorated pottery attracted many scholars and antiquarians to find its origin. Very soon Andre Godard, the Director of the Antiquity Service of Iran, tracked down these wares to the site of Sialk, situated in the outskirts of the modern city of Kashan on the edge of the Kavir Desert in the centre of Iran, 250km south of Tehran.

Soon after the National Museum of France asked for government permission to carry out excavations at Sialk, and Roman Ghirshman, the Russian born French archaeologist who devoted his life to studying the archaeology of Iran, began three seasons of large scale excavations.

North and South
Sialk consists of two prominent mounds 500m apart – Sialk North and Sialk South. The more prominent is Sialk South crowned by a large brick-built monumental building, which was later popularised – probably wrongly — as being the Ziggurat of Sialk. In November 1933, Ghirshman began digging mainly on the South Mound and in September 1934 after nearly four months he reached virgin soil revealing that it began as an important Chalcolithic (Copper Age) and early Bronze Age site. However, Ghirshman then left the site and carried out two seasons of excavations on the Sasanian city of Bishapur, 500 miles further south. He returned in 1937 and in 1938 and not only finished his excavations on Sialk South, but also opened three trenches on Sialk North. This proved even more interesting for Sialk North was the earlier site, beginning in the Neolithic around...
further research in Iran. Then a new phase of investigation started in 2008-2009, run by Hassan Fazeli Nashli from the University of Tehran, with the collaboration of Robin Coningham from Durham University, as well as scholars from Stirling University and from the Iranian Cultural Heritage Organisation (ICHHTO) and the Iranian Centre for Archaeological Research (ICAR). They were particularly interested in the Neolithic, so they reopened and extended the old trenches of Sialk North to study the daily household activities of the Neolithic people.

From first farmers to silversmiths

The archaeology of Iran is dominated by the Zagros mountains, which run north to south along the western edge of modern Iran. To the west are the fertile plains of Mesopotamia, modern Iraq, rich in fertile agriculture, but poor in metals. To the east is the hilly upland country of Iran, rich in metals and in many places very fertile. The uplands of the Zagros mountains are where the ‘Neolithic revolution’ took place between 10,000 and 8,000 BC, for it was here that the wild ancestors of sheep and goats can be found and also the forerunners of early grain cultivation. And it was from here in around 6,000 BC – give or take 1,000 years – that the Neolithic revolution spread out, both westwards down into the plains of Mesopotamia to found Ur and Uruk, and eastward into Iran to found Sialk.

The 6th millennium Neolithic sites of the Iranian central plateau are mostly situated between 900 and 1200m above sea level, and the Tepe Sialk village, 4ha in size is one of the best as well as one of the biggest examples. The new radiocarbon dates suggest that it started around 6,000 BC and the site was abandoned around 4,900 BC. The village is located on the edge of alluvial sands that are useful for

6,000 BC and coming down into the early Copper Age: there is then a gap of about 800 years before the new settlement began at Sialk South. Ghirshman also worked on two Iron Age cemeteries, which are still unique discoveries from the Iron Age in Iran. But one of the main advantages of his work was that he rapidly published the results in two volumes in 1938 and 1939: the first volume covering the two great mounds, while the second volume covers the Iron Age discoveries.

But what were the dates of Sialk? Ghirshman wrote in the pre-radiocarbon era and radiocarbon changed everything, pushing all dates further back in time, and so after a long lull Malek Sageg Shamirzadi carried out a ‘Sialk reconsideration’ project from 2000 – 2006 to provide a secure radiocarbon chronology for Sialk. Numerous young Iranian students were involved in his 5 year multi-disciplinary project, many of whom have gone on to carry out
simple irrigation systems and thus the economy was based on the growing of wheat and barley and the herding of cattle, goat, sheep, and pig, though wild resources continued to be exploited. Each house was made up of multiple rooms, though there were also yards and specific areas to keep animals. It has also been suggested that it was surrounded by a defensive wall.

At first the villagers buried their dead beneath the floor of the houses 30–50cms down. The bodies were both flexed and non-flexed and covered with red ochre. But the burials were all of the same size: there was not yet any hierarchy among the villagers. However, during the 6th millennium the burial traditions changed, and cremation was introduced. After the bodies were burnt, the bones of different individuals were collected together and put in jars and filled with red ochre. This mortuary tradition continued right down into the Iron Age.

The occupation of Sialk North continues into the 5th millennium with the introduction of a major new technology: copper. This brings with it the more complex social systems of the Chalcolithic period. Not only was smelted copper introduced, but there were also a number of very fine ceramic pots painted with delicate designs. The houses too became more substantial with a wall height above 2m.

However, this new revolution did not last long at Sialk North and one of the mysteries of Sialk is that from 4,900 – 4,100 BC there is a gap in the occupation record until a new settlement was founded a kilometre to the south known as Sialk South. Why there is this gap is still unknown, but once Sialk South was founded, it continued to be occupied down into the Iron Age.

Sialk South has become one of the classic sites for the Copper Age. The country of Iran is one of the heartlands of metallurgy. Iran generally is metal rich – unlike Mesopotamia – so here we can see a development of metallurgy not only in copper but also in silver, and a fine silver pin from the site is said to be the oldest silver ornament in the world. A major feature of the recent excavations has been the excavation of a metal worker’s shop in which early metal working hearths have been discovered.

The finds from the workshop include 61kg of copper slag, six samples of silver litharge cake, and fragments of objects used during the smelting process, such as furnaces and crucibles. All such direct evidence of craft production was recorded in the industrial sector of Sialk South. Based on a combination of textual evidence and archaeological data it now seems clear that the Iranian central plateau was the birthplace of the silver extraction, with Sialk offering a classic example of the presence of such valuable goods at a site during the fourth millennium BC.

The Chalcolithic period is characterised by increased interaction between the Iranian central plateau, the central Zagros mountains and Mesopotamia. And Mesopotamian pottery, including Uruk trays have been found at Sialk. Very finely painted and unpainted wares, both buff and very pinkish have been recovered from Chalcolithic deposits.

All change

The Chalcolithic phases at Sialk are known as Sialk III. But Sialk IV, the Early Bronze Age, was a time of significant disruption across the length and breadth of Iran characterised archaeologically by the abandonment of the rural settlements and the interruption of social and economic developments. Houses of late Chalcolithic Sialk III were abandoned, destroyed by fire, and succeeded by a new architectural layout, which Ghirshman in 1934 saw as a case of ‘brutal conquest’ by incomers from Susa in the south. One of the major changes is reflected by the introduction of writing. In the Sialk phase IV, some proto-Elamite tablets mixed with numeral and numero-idiographic tablets were recorded by Ghirshman in the 1930s. And during the last season of excavation in 1937 he found in the Deep Sounding an important architectural complex dating to the late 4th millennium BC with abundant ‘Uruk—related’ (i.e. Mesopotamian) material such as ceramics and several numeral tablets. In his comparative studies, Ghirshman was able to correlate the Proto-Elamite levels of Sialk with the classic site of Jemdet Nasr in lower Mesopotamia where a large collection of proto-cuneiform tablets was discovered.

At the beginning of the Iron Age in the later 2nd millennium BC there is a marked cultural shift at Sialk as well as at other sites in Western Iran. New pottery types were introduced, and the dead were buried in extramural cemeteries. These changes are often associated with the arrival of new peoples speaking Indo-European (or more accurately Indo-Iranian) languages,
of which modern Persian is a descendant. How many people may have been involved in these migrations, or their ethnic identity, are questions that are frequently debated by archaeologists and linguists.

The major glory of Iron Age Sialk are the two cemeteries which Ghirshman excavated and which have provided a magnificent corpus of Iron Age pottery, including a number of the very odd, but very impressive beak-shaped jugs. Their very long spouts presumably played an important role in some unknown ritual.

The Iron Age at Sialk is dominated by the problem of the ziggurat. Was there a ziggurat at Sialk? Ziggurats are a feature of Mesopotamian archaeology — there was a famous one at Babylon — but they do not normally extend up into Iran. Malek Shamirzadi, who carried out the 2000–2006 excavations, argued that it was a ziggurat built during the 3rd millennium BC. However the younger generation are sceptical about calling it a ziggurat, >
and prefer to call it a major brick built monument, a citadel perhaps of the 1st millennium BC. It is certainly the most prominent feature of Sialk today, and a most impressive stretch of brick wall is conveniently on the side of the mound that faces the modern town of Kashan and is thus the first part of the mound to be seen by visitors.

Then in the middle of the 1st millennium BC, Sialk was abandoned. This was the time of the beginning of the great Persian Empire, when Cyrus and Darius and Xerxes established the greatest empire the world had ever seen, — even if they failed to conquer the Greeks. And yet there must be something, somewhere. Sialk lies geographically on the edge of the desert that forms the centre of Iran and there must have always have been traffic passing north to south along this crucial route. There is also an important oasis here. So where is the Achaemenid (=Persian) town and also the Parthian and Sasanian settlements?

The answer presumably is that they lie under the Medieval and modern town of Kashan, itself a favourite among admirers of Medieval and Iranian architecture. A programme of test pits throughout the town is surely needed to find the lost Achaemenid town and to turn Sialk and Kashan into one of the glories of Iran.

**The next chapter**

A major programme is underway to reinforce the position of Sialk as one of the most important archaeological sites in Iran and to ensure that it has due recognition inside and outside Iran. With the support of the ICHHTO and ICAR, a major conference was held at Asia House in London in March 2017, organised by the Iran Heritage Foundation, and another is planned for July 2018. Professor Hassan Fazeli, the Professor of Archaeology at Tehran University, and current excavator of Sialk, as well as Dr Jebrael Nokandeh, Director of the Tehran Museum, are pressing for UNESCO to recognise Tappeh Sialk as a World Heritage Site. It is intended that an international steering group, under the auspices of ICHHTO, should be established to advise on further archaeological work at Tappeh Sialk and neighbouring Kashan. This could lead in due course to the establishment of a site museum at Sialk and the creation of a research institute in Kashan.