# Ancient treasure rises from Berlin rubble

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When an incendiary bomb hit in World War II, Berlin's Tell Halaf archaeological museum went up in flames and its 3,000-year-old statues were smashed to smithereens.

It has taken nine years of piecemeal work, but 60 artifacts have now risen again, phoenix-like, from 27,000 fragments of stone found in the ruins.

The ancient treasure -- monumental deities from Aramaean civilisation and relief slabs depicting hunting scenes -- will soon be back on public display.

A century after it was first discovered in the Syrian desert and nearly 70 years after its bombed and broken shards were dumped into crates and buried anew in the cellars of Berlin's Pergamon Museum, the story of its salvation is itself an unlikely tale.

"We have reconstructed more than 90 percent of the artifacts from the Tell Halaf museum," said German archaeologist and restoration manager Lutz Martin, 56.

"Of the 27,000 pieces, there are only 2,000 left over" that could not be fitted back, he added.

The labour of love, undertaken by a small technical team, was financed by the banking family of Max von Oppenheim, the archaeologist who first discovered the Aramaean palace of Tell Halaf shortly before the

outbreak of World War I in an area today located in northern Syria, on the border with Turkey.

He stumbled across the ruined palace as German engineers toiled nearby on the Berlin-Baghdad railway line.

After two campaigns of excavations, from 1911 to 1913 and 1927 to 1929, he brought back many of his finds to Berlin where they were housed in their own museum.

The building was bombed in November 1943 and all artifacts made of wood and gypsum burnt. Only the basalt rock statues survived the inferno, but cold water used to put out the fire fractured them nearly beyond repair.

"The whole museum reached temperatures of over 1,000 degrees (centigrade) and then it was suddenly cooled down with water and this put severe stress on the stones which just exploded," said Kirsten Drueppel, an expert at Berlin's Technical University's department of mineralogy involved in the project.

Fitting the stones together again was a major technical challenge.

"At first we thought we might only be able to reconstruct one or two of the larger pieces", starting with some lions that stood at the palace gate entrance, said Martin.

"We didn't know how far we'd get because we didn't know how much of the original material was recovered from the destroyed museum," added Stefan Geismeier, the project's chief restorer.

The team considered using computers to sort out their giant puzzle, but costs were too great, results uncertain, and they needed to show sponsors

quickly that they could actually put things back together again.

"At first we thought we'd just reconstruct the outer shells and fill out the inner parts with cement. But after a couple of years we'd developed such a feeling for the basalt structure that we could also refit the inner parts so that most of the artifacts are pretty much complete," said Martin.

"But unlike an ordinary puzzle where things get easier as you get towards the end, things just got more and more difficult as left over pieces became ever more shapeless and we had to imagine where they might fit," he said.

"That was our biggest difficulty," agreed Geismeier.

Some pieces were as small as a fingernail, others weighed one and a half tonnes. One of the statues, a goddess, was broken into 1,800 pieces.

"And every artifact had to be put back together in a single operation" to ensure all the pieces fitted properly, Geismeier added.

"Sometimes there were also difficulties because von Oppenheim himself had put things in the wrong place. He mistakenly switched part of the hind legs of a male and a female lion and only during reconstruction did we realise what parts really fitted the lions," he said.

One goddess-like figure was discovered intact by von Oppenheim, but was damaged during World War I when his archaeological digs were sacked. The figure's pleats and nose were chopped off with an axe.

But von Oppenheim had made casts of the figure when it was first unearthed and the casts, taken to Germany, helped restorers not only to rebuild the statue, but to give it a proper nose job as well.

While archaeologists were able to determine what fitted on the outside of the artifacts because of the carvings, scientists analysed the core fragments' mineral content, properties, colours and shapes to allow them to be replaced, said Drueppel.

The restored works will be exhibited from January at the Pergamon Museum, before one day forming part of a new entrance to the museum's Near East department.

Asked why the museum had kept the broken debris so long in its cellars, Martin said: "You know archaeologists never throw anything away".