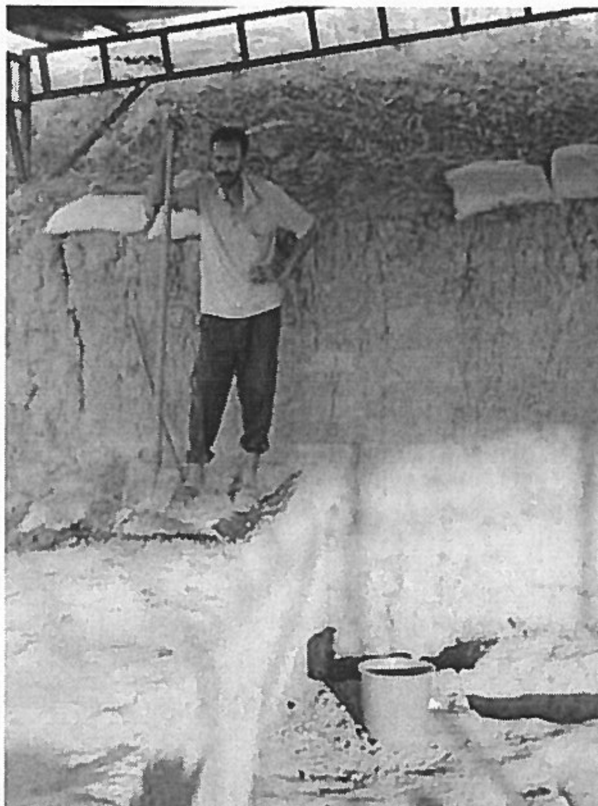
Deciding where to dig: Archeologists stake their futures on it

BY JENNY GREEN, THE OTTAWA CITIZEN JULY 29, 2010



Dawn at the dig.
Photograph by: Jennifer Green, The Ottawa Citizen

Tel Tayinat, Turkey — Archeologists stake their entire future on what happened generations earlier at one particular spot.

That educated guess may predict more about their futures than about humankind's past.

But it looks like Canadian archeologists have nailed it at Tel Tayinat, a University of Toronto dig in southern Turkey.

"It's a perfect little nexus of south, east, west and north, trade and immigration," says Ottawa archeologist Steve Batiuk. "It's a place that could change our view of history and how mankind evolved."

The pattern of habitation in the fertile lands suggests as many as 12,000 could have lived here off and on between 3000 BC and about the sixth century BC.

So far, the site has revealed a palace or monumental structure of some sort, two temples, and an iron workshop as well as a stream of artifacts: a tiny copper alloy sewing needle, delicate beads, drinking

cups, a magnificently decorated jug with rosettes and a charging bull, an Assyrian shield and a treaty tablet that comes tantalizingly close to revealing just who lived here and when. "We're still trying to get our minds around it," says Batiuk.

With its sister site Tel Atchana about 750 metres away, it would make an excellent research and visitor centre, to rival Catalhoyuk, a famous Turkish archeological dig often touted as the world's first city.

"It has a lot of potential," he says. "It could be a big tourist draw, and in time it will happen."

Right now, the excavation is focused on the first temple, about five metres into the ground. The most recent, or top layer, was the site of a temple in the Late Iron Age at around the sixth century BC and has a light chocolate colour. But that soil goes down a mere 30 centimetres or so, then lightens into sand-coloured stratas occupied as early as 3000 BC.

Directly north was a monumental structure — nobody knows just what it was — that was bulldozed for agriculture in the 1970s.

Fortunately, the temple was left, as was a second temple nearby, uncovered by the Canadian team two years ago.

So how do archeologists decide where to dig and how do they go about it?

University of Chicago archeologist Robert Braidwood first discovered Tel Tayinat in the 1930s, uncovering the first temple and the monumental structure that was later bulldozed. He never to the returned the site after the tensions of the Second World War, but Harrison, as a Chicago alumnus himself, was very eager to work here, and was finally able to about 10 years ago.

Batiuk said things were different in Braidwood's day. "In the past, archeologists just looked for the area that they thought would have the sexiest stuff and they would go dig that. Now we take a wider approach. We look at the entire project, (in this case, the Amuq Valley Project, where Tel Tayinat and Tel Atchana are located.)

"We look at the entire environment to try to basically date them and look for settlement patterns, how they looked at different time periods. That can give you an idea of the more important sites at different time periods."

The team began by simply walking the cotton fields where hundreds of potsherds were scattered about in among the crops. Farmers didn't bother winnowing them out, since most were no larger than a baby's fist.

The archeological team kept a record of where the pottery was found, and overlaid it first with the records from Braidwood's expedition, then with topographical and fresh survey information, and finally with a declassified satellite image. Voila! Pottery stopped right at what looked like a shadow of a city wall.

Then all the information they had was further plotted on a geographical information system that has shows both space and time to give a sort of three-dimensional chart.

Once on the dig, archeologists remove the top soil, usually with a pick, then look at the soil underneath for variations, scraping with their trowels, feeling for different textures. The trowel is like an artist's brush, "It becomes an extension of your arm."

The layers are relatively easy to peel back, as each has its own consistency: think of skimming fat off a cooled broth. At the Tayinat dig, each load is sifted and any bits are brought back to the lab for washing and examination.

This is one of the few digs that sift and wash everything; most find it too time consuming.

The samples go to each specialist; for instance, Molly Capper, a paleo-ethno-botanist will look for seeds, either wild or cultivated (but not grown for textiles.) She puts them through a "float" that allows them to rise to the surface, then examines the remains under a bright light, occasionally bringing a bead over to illustrator/registrar Fiona Haughey. Each significant artifact must also be photographed by staff photographer Jennifer Jackson, who this week was finding just the right light to photograph an Assyrian tablet so that she could e-mail the results to epigraphy Jacob Lauinger at home in Baltimore. Most seasons, she has 700 or more photographs to do.

Some of the specialists prepare seminars for their colleagues on the preliminary results.

At the end of season, usually late summer, the materials may go to the museum in the nearby city of Antakya for display, or as a study collection that can be examined later. The rest goes into a depot or large shed at the dig site.

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