Reconstructing Ancient (Biblical) Israel: The Exact and Life Sciences Perspective

This is an appeal for cooperation in the scope of a new research project described below. The call is directed at archaeologists carrying out excavations at Late Bronze Age and Iron Age sites in Israel and neighboring countries (mainly Jordan).

The project, titled ‘Reconstructing Ancient (Biblical) Israel: The Exact and Life Sciences Perspective’ (hereafter Ancient Israel Project), is funded by the European Research Council. The Advance Grant of ca. three million Euros was awarded to Israel Finkelstein of the Institute of Archaeology of Tel Aviv University (Principal Investigator) and Steve Weiner of the Kimmel Center for Archaeological Science at the Weizmann Institute of Science (Co Investigator). The project is planned for five years. Work began on February 1, 2009. Below please find a short abstract which introduces the project and specifies the ten research-tracks which are included in it.

We are writing to seek your cooperation in the following research tracks:

B2. Geo-archaeology: We are looking for sites with four-room houses that are planned for excavation in the coming months/years. We wish to take samples of sediments from these sites during excavation. We are also looking for survey sites which can be interpreted as representing pastoral activity, e.g., a few sherds with no evidence of permanent construction.

E1. Residue analysis: We are looking for unwashed Iron Age vessels from past excavations, mainly storage jars, or sites where Iron Age vessels are expected to be retrieved in near-future excavations.

C2. Metallurgy: We are looking for sites with evidence of metallurgical activity.

We are proposing cooperation along the following lines: 1) the research (but not the excavation) will be funded by the Ancient Israel Project; 2) the excavator will take part in the research and in the publication of the results for his/her site; 3) in addition to publication in scholarly journals, an article on the results will be submitted to the given site’s final report. The given site's results will be incorporated in the broader scope of the project.

If you can help us, or if you have questions, we would be grateful if you would write to us or to Shirly Ben Dor (bdeivan@gmail.com) and Yuval Gadot (ygadot@gmail.com) who are helping in the management of the project.

Israel Finkelstein and Steve Weiner

Abstract

The study of Ancient Israel's texts (the Hebrew Bible), material culture and history has been a keystone of European scholarship since the Enlightenment. Biblical exegesis and archaeology contributed impressively to our understanding of Ancient Israel. Yet, in certain areas conventional research has reached a stalemate. With very few real-time historical records, with the biblical testimony written a long time after the events described (if not mythical) took place, and with the strong theological agenda of both the original authors and some modern scholars, reconstructing the world of Ancient Israel is a complex matter.

The exact and life sciences are not restricted by these preconceptions and are able to reveal data that is not visible to the naked eye. Advances made in the last decade in archaeological science show that this is the wave of the future. The novelty in this proposal is to deploy an arsenal of 10 research tracks from the exact and life sciences in order to better understand Ancient Israel:

A. The time of Ancient Israel:

B. The genesis of Ancient Israel:
B1. Human genetics and paleodiet.
B3. Palynology: relating paleoclimate to settlement oscillations.

C. The life of Ancient Israel:
C1. Ceramic petrography: reconstructing trade patterns.

D. The mind of Ancient Israel:
D1. Daily mathematics of dimensions: pottery and architecture.
D2. Epigraphy: the use of advanced computational methodologies (e.g., artificial intelligence algorithms) in the study of writing in Israel and Judah.

E. The identity of Ancient Israel:
E1. Residue analysis of pottery vessels, and-
E2. Archaeo-zoology; both aim at elucidating diet, foodways and possibly identity boundaries.

This project has the potential to revolutionize the study of Ancient Israel. Such a broad research plan in the realm of archaeology and the sciences, focused on a single period/theme, has never been conducted anywhere.

The project will be directed by Israel Finkelstein and Steve Weiner, with the help of Shirly Ben Dor and Yuval Gadot. The different tracks of the project will be carried out by Elisabetta Boaretto, Alexander Fantalkin and Eliezer Piasetzky (radiocarbon); Ruth Shahack-Gross and a post-doc researcher (geoarchaeology); Thomas Litt, Frank Neumann and Moti Stein (palynology); Yuval Goren and a post-doc researcher (ceramic petrography); Naama Yahalom and Adi Eliyahu (metallurgy); Yitzhak Benenson and Elena Zapassky (daily mathematics); Eli Piasetzky, Benjamin Sass and Arie Shaus (epigraphy); Dvora Namdar (residue analysis); a post-doc researcher (archaeozoology). The project will support additional post-doctoral researchers and Ph.D. students.

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