Israel and Europe. Building Bridges via the History of Science

Abstract. Israel’s History of Science tradition is oriented towards the emergence of science in the European context. We explore the history of this tradition, assess the actual situation, and take a glance at future Israeli ties to European history and intellectual currents.

This is the third in series of articles that appears within the journal section dedicated to the European Society for the History of Science. The articles are based on interview material and feature scholars who report on the situation of history of science in their country. The third country under the spotlight is Israel.

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We interviewed:

Prof. José Brunner, Full Professor at the Buchmann Faculty of Law and the Cohn Institute for the History and Philosophy of Science and Ideas. He also serves as Director of the Cohn Institute.

Prof. Yossef Schwartz, head of the School of Philosophy, Linguistics and Science Studies at Tel Aviv University. He is Professor at the Cohn Institute for the History and Philosophy of Science and Ideas and was director of the Institute from 2009 until 2015.

Prof. Rivka Feldhay, Professor (Emerita) of History of Science and Ideas at the Cohn Institute, where she served as Director between 1997 and 2003. She is currently the Director of the Minerva Humanities Center at Tel Aviv University and head of the humanities section at the Israel Science Foundation.
The History and the Present

As the oldest university in Israel, the Hebrew University of Jerusalem has the longest tradition of research into the history and philosophy of science (HPS). José Brunner tells us that Professor Yehoshua Bar-Hillel taught philosophy of science as early as the 1950s in the Department of Philosophy. In the 1970s the graduate program for history and philosophy of science was founded within the faculty of natural sciences and mathematics, and a decade later it was reorganized as an interdisciplinary and inter-faculty program, anchored to the humanities and the social sciences: The program was dealing with history, philosophy and sociology of science. Today, the Program for History and Philosophy of Science at the Hebrew University in Jerusalem includes about 15 PhD students and a similar number of M.A. students. The program works in close collaboration with the Edelstein Center for History and Philosophy of Science, Technology and Medicine, which is integrated with the Hebrew University and which provides scholarships for postdocs and graduate students.

While HPS in Jerusalem has the longest tradition, Tel Aviv University offers the largest program with the broadest spectrum. In 1983 Yehuda Elkana and Amos Funkenstein founded the Cohn Institute for the History and Philosophy of Science and Ideas, which has the status of a department for graduate students in the Faculty of Humanities. According to Rivka Feldhay, the foundation of this institute was Elkana’s answer to the positivistic tendencies of the Jerusalem group. From 1983 onwards, the Cohn Institute adopted an approach that considered how social, economic, and political contexts co-determined scientific development. After three generations, many of the scholars who are now active in Jerusalem were actually educated in Tel Aviv.

The Cohn Institute of Tel Aviv University is very active in the area of HPS. Brunner describes how the graduate department includes more than 60 PhD candidates and about 80 Master’s students. On average the Cohn Institute also annually hosts six postdocs. Moreover, a couple of years ago the Cohn Institute established an extracurricular program in history and philosophy of digital culture, and about a tenth of its regular students are currently interested in questions that concern historical and philosophical aspects of new social media, virtual reality, the internet, and big data. Also among the topics that make up the wide variety of subjects pursued at the Cohn Institute’s department for history of science are the history of mathematics, the history of modern physics and technology, the history of mental trauma and psychoanalysis, Victorian science, interactions between sociological and biological thinking from the 18th to the 20th century, Greek astronomy, relations between Greek and Islamic philosophy and science, and medieval and early modern intellectual history with an emphasis on its inter-cultural dimensions, which bring together Jewish, Christian, and Islamic thought and knowledge of the period.

Looking at the entire faculty of humanities, Yossef Schwartz explains that, besides the Cohn institute, other departments have scholars who work intensively with HPS methods: History (7), Middle Eastern Studies (2), East Asian Studies (3), Judaic Studies (2)
Arabic and Islam (1). However, these figures indicate that despite impressive developments over the last 40 years, the institutional embedding of the history of science remains quite unbalanced and fragmented. This situation, continues Schwartz, creates a great disparity in research as each scholar is active in a different institutional setting and therefore guided by different demands and priorities. Topics such as the history, philosophy, and the social context of the emergence of traditional Chinese medicine and 18th-century Chinese astronomy can, for example, be studied at the Department of East Asian Studies, while the introduction of Western science and technology into a Middle Eastern setting, such as Egypt, is explored in the Department of Middle Eastern and African History.

Outside these significant institutions other institutional actors enrich the dynamic intellectual network of Israel’s history of science. While the Cohn Institute focuses primarily on the history and philosophy of Western science, Brunner notes that the Minerva Humanities Center was established in 2009 with the program ‘Migrating knowledge’ as one of its central subjects. The main merit of research at the Minerva Center, according to Feldhay is that it has widened the gaze, shifting the focus from Israel to the entire Near East region and so relating the history and philosophy of science to politics in its historical and present perspectives.

Finally, the interdisciplinary graduate program in Science, Technology and Society (STS) at Bar-Ilan University, located outside Tel Aviv, is the most recent academic center to offer research students the chance to complete an M.A. or a PhD in the history of science. So far, it has remained rather small and focuses mostly on 20th-century science and technology.

With such an institutional panorama, Schwartz is sure there is potential for HPS to make a stronger intellectual impact if means and structures are created to improve collaboration among research centers. There have already been moves in this direction. Brunner explains that—while there is, of course, some competition among the various Israeli university departments concerned with the History and Philosophy of Science, which are all looking for excellent research students and increased funding—primarily the atmosphere is one of cooperation. In fact, HPS at the Hebrew University and Tel Aviv University have a long tradition of joining forces. Their ties also include the Van Leer Jerusalem Institute, which hosts a substantial number of international HPS conferences and workshops every year. Together, these three institutions sponsor the Bar Hillel Colloquium—a lecture series in which leading scholars from around the world give talks and discuss their work with faculty and students—and an annual international HPS workshop that is held in Jerusalem and Tel Aviv. Currently, Tel Aviv University, the Hebrew University of Jerusalem and Bar Ilan University are also linked by a newly launched Interuniversity PhD Program in History and Philosophy of the Life Sciences, which has been funded by Israel’s Council for Higher Learning’s Humanities Fund. Finally, Israeli scholars from all universities meet at the annual conferences of the Israeli Society for History & Philosophy of Science (ISHPS). The ISHPS is a network that was established in 1999 in order to promote the
communal connections between the different actors in the field. But for Schwartz this is not enough:

‘its annual meeting is an important event but a one-day meeting once a year is far from being enough to create a true collaboration between the different departments.’

Source Material for the History of Science

Regarding material to work on—the historical sources—there is really no shortage in Israel. Brunner points our attention to the National Library of Israel. It contains a number of specialized collections that could be of interest to European researchers in the history of science and knowledge. The Gershom Scholem Collection specializes in the fields of Kabbalah, Hasidism, and Jewish mysticism. The Islam and Middle East Collection contains primary and secondary sources on Islamic law, theology, philosophy, mysticism, and legal codes. The National Library also has a collection of Newton’s theological manuscripts that are available to the general public in digital format and that can be accessed by researchers. Feldhay also highlights the impressive program that is collecting sources by Jewish scientists, which has been running since the 1970s. In this way, great archives are being created which are mostly related to Jewish, Hebrew, and Judaeo-Arabic materials. Schwartz moreover mentions the world heritage of manuscripts written in the Hebrew alphabet (Hebrew, Aramaic, Judaeo-Arabic and other Jewish languages) which is fully covered in Microfilm form. The different national archives include many personal archives of Jewish scientists. There is also an ongoing process of digitization, though some of the local archives do not have the means to pursue such a goal. The Wiener Library for the Study of the Nazi Era at Tel Aviv University is a good example of a unique archive in a developed stage of digitization (The Online Wiener Archive).

The Hebrew University houses the Albert Einstein Archives, which contains a large collection of original manuscripts by Einstein. Some of the material can be accessed digitally, too. And finally, the Edelstein Collections on the history of dyeing and chemical technology contain a number of rare books in this field.

The Future

Given this institutional and material context, a look at the current financial system of support for research and teaching might help us imagine future scenarios for the HPS discipline in Israel. Brunner first points out that important Israeli funding bodies such as the Israel Science Foundation do not currently recognize the history of science as a research domain of its own. This means that historians of science are at a disadvantage when they have to compete for research grants with scholars of other disciplinary areas on a national level. The system and amount of financial support seems to be adequate for the present
situation but in the future it might be helpful to distinguish between brilliant individual scholars and the discipline as such, as Schwartz suggests. Israeli scholars enjoy pretty good access to attractive research grants such as ISF, general European Research Funds, and some collaboration on a bi-national level such as that between Germany and Israel, which is the most active. The situation at the Cohn institute and in other Universities does, however, raise the question of how best to maintain the field and the discipline as such.

Israel, like many European countries, is noticing a tendency for the humanities to be marginalized in universities and the discipline of the history of science is not exempt from this trend. The Israeli rhetoric of ‘Start-Up Nation,’ Feldhay explains,

‘is slowly eroding the idea of the university—in Cardinal Newman’s words—disentangling technology and the exact science from the humanities.’

The latter are becoming more and more dominated by Jewish themes, while critical theory is often seen as not patriotic enough, and hence not really deserving of funding. A cultural mix of nationalism, religion, and overarching technology, separated from the humanistic values in which it used to be embedded, might cloud, hide, and eventually harm the intellectual independence of the HPS discipline in Israel. This is the reason why strong international ties, collaborations, and exchange of scholars with Europe are so essential for Israel now.

The Relationship to Europe

In this context, all forms of international support, collaboration, and intellectual exchange become essential. All Israeli scholars active in the history of science are determined to create new international links. These links can be promoted on different levels. On an individual basis, for instance, many scholars apply for European Research Grants, a form of financing that has become extremely relevant in Israel. Private donations are also a traditional form of support for research, especially thanks to Jewish US citizens. Other countries’ programs that support research in Israel can also have a considerable impact, as is the case for the Minerva Programs linked with the German Max Planck Society. Finally, because of the European intellectual roots of the HPS discipline, and because of the general intellectual orientation toward Europe of the Humanities in Israel, research institutions are keen to create a stable cooperation with research institutions abroad. As Brunner states,

‘due to the geographical proximity to Europe and the European roots of the study of the history and philosophy of science in Israel, a further intensification of cooperation with European partners is to be welcomed. The emerging close ties between the Cohn Institute, Minerva Humanities Center, and its partners in Berlin [Max Planck Institute for the History of Science] and Zürich [Centre for the History of Knowledge] show that there is tremendous interest among Israeli scholars and students in such academic connections. A broader framework for such cooperation, under the auspices of the EU would be fruitful.’

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Students and young researchers are constantly looking for possibilities to study and work in Europe. According to Schwartz, any improvement in the existing frameworks, such as Erasmus, might be helpful. It is with this in mind that Brunner has launched an appeal to the European Society for the History of Science to provide an infrastructure for cooperation on an individual as well as an institutional level.

To conclude, hosting one of the next conferences of the European Society for the History of Science in Israel could be a means to intensify international relationships. All Israeli scholars, Schwartz says, are obviously aware that in the context of the current political conditions some colleagues might refuse to visit Israel and some might be even prevented to do so, but others would be particularly attracted by a conference that takes place in Israel. To conclude with Brunner’s words, ‘The Cohn Institute would be happy to host it!’