Ben-Gurion University of the Negev

**The Jacques Loeb Centre
for the History and Philosophy
of the Life Sciences**

Racial *Zick-Zack* Curves:
On Methods For Visualizing Difference

Amir Teicher, The Hebrew University of Jerusalem

December 9th (Monday), Building 39, Room 106, 16:00

The Jacques Loeb Centre seminars provide an interdisciplinary forum, in which historians and philosophers of science, as well as scientists, present and discuss new research related to science with a special focus on the life sciences. Case studies and surveys examine the impact of political, socio-economic and personal factors on the conduct of science, the ethics of research, and the causes of progress and setbacks.
Faculty and students from all disciplines are invited!

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Identifying clusters and group differences among a collection of numerical data is one of the veteran problems of statistical analysis. This problem was of special interest to early 20th-century German anthropologists, who were striving to find the presumed racial components underlying existing populations. In 1907, the anthropologist Theodore Mollison came up with a novel 'deviation-index'. It was a compelling mathematical and visual tool which enabled users to turn average measurements on populations into curves, which were plotted on a single coordinate system and compared among themselves. The final product pointed to phylogenetic similarities between human races. During much of the twentieth century, but especially during the first three decades, Mollison's method proliferated in German-speaking anthropology. In fact, it became customary to conclude scientific articles by applying it to the examined material and using it to bring order to otherwise-opaque numerical results.

This lecture analyzes the visual and statistical characteristics of this curious tool. It has been shown that Mollison's method was highly problematic, and that indeed many of the scholars who used this tool, although partly aware of its drawbacks, found themselves falling into various traps due to its misleading visual dimension. To account for the rise of the 'deviation index' in the anthropological scientific community, the 'visual culture' of racial anthropologists is examined, as well as other cognitive and scientific motivations which characterized the works of racial anthropologists. The lecture thus sheds light on an unfamiliar story in the development of racial thought in the German-speaking world by closely analyzing the curious properties of graphs and their unique ability, in certain contexts, to persuasively strengthen particular perceptions and encourage essentialist scientific views.