



EINLADUNG

zum

VERA - SEMINAR

von

Mike Dee

Oxford Radiocarbon Accelerator Unit, Research Laboratory for
Archaeology & the History of Art, University of Oxford

Developing a Radiocarbon Chronology for Ancient Egypt

The Egyptian historical chronology was integral to the development of the radiocarbon method. Willard Libby verified his technique by obtaining measurements on Egyptian materials that were in good agreement with conventional dates. Over the next 50 years, radiocarbon dating was commonly employed on Egyptian samples, although the precision and accuracy of the method was at times unsatisfactory.

In 2006, the Oxford Radiocarbon Accelerator Unit began a 3-year project aimed at improving the performance of the technique in Egypt. Every potential shortcoming of the procedure was investigated, such as the possible influence of environmental processes and the importance of sample selection. During the final stage of the project, the knowledge gained from these investigations was used to develop a radiocarbon-based chronology for Dynastic Egypt. This involved obtaining samples from museums and galleries throughout Europe and North America that could be assigned to discrete historical periods, often to within one king's reign. In order to obtain the highest levels of precision possible, the resultant radiocarbon measurements were then modelled using Bayesian statistical methods. King-list order and the comparative length of reigns were incorporated as prior information in the analysis. Separate models were produced for the New, Middle and Old Kingdoms and variations run in each case to check the sensitivity of the models to the chosen priors. The resulting scientific dates were of comparable precision to historical estimates and together comprise the first radiocarbon-based chronology for ancient Egypt.

Donnerstag, 17. Juni 2010, 16:30 Uhr

**1090 Wien, Währinger Str. 17, "Kavalierstrakt",
1. Stock, Victor-Franz-Hess-Hörsaal**