

1976. However, it can be assumed that the reagents are not produced from biological sources. Some samples of vinegar that were supposedly produced from wine showed the same (too high) ^{14}C concentration; some contained the same concentration as wine of recent harvest. Also, samples of acetic acid produced from wood, technical-grade acetic acid and one from "ancient times" were analyzed. The results are discussed and a possible explanation is given.

REFERENCE

Schönhofer, F 1989 Determination of ^{14}C in alcoholic beverages. In Long, A and Kra, RS, eds, Internatl ^{14}C conf, 13th, Proc. Radiocarbon 31(3): 777-784.

ESR AND U-SERIES DATING OF PREHISTORIC SITES IN THE EASTERN MEDITERRANEAN

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The Eastern Mediterranean has been a thoroughfare for hominids since the time of the Acheulian culture. Sites that were occupied by the earlier populations (Middle and Lower Paleolithic) are beyond the range of ^{14}C , but can now be dated effectively by trapped charge techniques (TL, OSL, ESR), and in some cases, by U-series. A consistent chronology based on TL dates on burned flint and ESR on tooth enamel have been obtained at the Early Modern human site of Qafzeh, the Neanderthal site of Kebara and the Acheulian site of Yabrud. ESR dates for Skhul and Tabun have been obtained using museum specimens of teeth. The addition of U-series analyses of tooth enamel will further refine these dates. Concordance can be tested with high-precision mass spectrometric U-series on stalagmites at a few sites (eg, Hayonim and Nahr Ibrahim). ESR is uniquely applicable to the oldest sites (Ubeidiya, Gesher Benot Yaacov), whereas OSL may be useful for some coastal sites (eg, Evron).

FURTHER ANALYSIS OF THE INTERNATIONAL INTERCOMPARISON STUDY (ICS)

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The major findings of the ICS have already been published (Scott, Long & Kra 1990), but a number of questions remain unresolved. In this paper, we address a number of key issues broadly defined into two categories of user and technical relevance. These include:

1. The analysis of the known-age wood samples provided in Stages 2 and 3 of the ICS
2. Further investigation of the quoted errors and their relationship with the perceived precision and accuracy, which are of interest to users of ^{14}C dates
3. The influence of method of pretreatment and investigation of the corresponding $\delta^{13}\text{C}$ data base, of more technical relevance to laboratories.

REFERENCE

Scott, EM, Long, A and Kra, RS, eds, 1990 Proceedings of the International Workshop on Intercomparison of Radiocarbon Laboratories. Radiocarbon 32(3): 253-397.

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