alluvial plain is 2.4 cm/100 years. The $^{14}$C ages of thick deposits of Kankar also coincide with the glacial periods at 18,000 and 30,000 years. Alluvial drowning and meandering of the rivers in the Gangetic Plain have left in their wake many abandoned channels, ponds and lakes. Radiocarbon ages of marl deposit (shell layer) from an abandoned channel in Unnao district suggest that this process may be in response to sea-level rise during the early Holocene. The sedimentation rate for this channel has been calculated as 0.7 cm/100 years for the 40-cm-thick shell layer.

ON THE POSSIBILITIES OF USING THE $^{14}$C METHOD IN THE STUDY OF LATE PLEISTOCENE GEOCHRONOLOGY

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The use of radiocarbon dates in the study of Late Pleistocene geochronology is accompanied by two permanent problems: reliability of “old” finite ages and real precision of dates of Middle Weichselian age. The latter is much discussed in the study of the development of the last Scandinavian glaciation in the Russian Plain in East Europe. Skepticism about $^{14}$C dates is caused by objective and subjective reasons. One of the objective reasons – the presence of allochtonous material, leads to controversial results within a geological section, but in some cases, allows us to obtain additional information on the genesis of the studied deposits. From among the large number of subjective reasons for more serious mistakes, the leading dangers are the inability to avoid contamination and to measure very low radioactivity of samples.

RADIOCARBON DATING: A DIDACTIC VIDEOTAPE

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In order to familiarize archaeologists with the basics of radiocarbon dating and to acquaint users with the experimental procedure, we prepared a videotape in which radiocarbon dating by liquid scintillation counting is explained. The exposition is divided into the following sections:

- Geochemical basis of radiocarbon dating considering the carbon isotopes, their distribution, formation and disappearance of radiocarbon
- Measurement of $^{14}$C activity by liquid scintillation, explaining its basis
- Treatment of samples
- Synthesis of benzene
- Necessity of using a contemporary standard
- Age calculation and its range; justification of the uncertainty
- Calibration of radiocarbon ages and its justification

RADIOCARBON DATING IN THE SAN PEDRO VALLEY, SOUTHEASTERN ARIZONA

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In the San Pedro Valley in eastern Arizona, $^{14}$C measurements and major element chemistry were used to construct a geochemical framework for the interpretation of basin hydrology. Residence