

F-20. Technology, chronology and style: problems in the archaeology of ancient sluice control structures

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Exploration and recording of the remains of 9 ancient sluices, when combined with those in the literature and with various dating evidence, permits the initial differentiation of *bisokotuwa* type sluices based on construction attributes, as well as their tentative chronological seriation.

Ongoing archaeological impact assessment exploration of irrigation schemes earmarked for rehabilitation by the Irrigation Department under the National Irrigation Rehabilitation Project has provided an archaeologically random sample of 66 projects, most with ancient origins. 38% of these have traces of ancient (and/or colonial) irrigation structures in stone and/or brick, although the majority of these structures have been disarticulated by irrigation renovation activities during the past century. Two of these projects have semi-intact ancient sluice structures. For comparative analysis, this sample has been expanded by detailed field observations of 7 other sluices. The 9 structures were measured, photographed and described in detail in the field. Visible attributes of the structures were then identified and compared.

The field sample has been preliminarily grouped by various attributes of size, material and construction techniques into 2 fairly discrete groups. Although the small sample size makes conclusions tentative, these 2 groups can probably be attributed to chronological changes in design.

Dating evidence allows a tentative chronological seriation of the groups. The latter probably dates to the 11-12th centuries, and the other, less homogeneous group, probably several centuries earlier.

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