

## **Intra-site Spatial Analysis of the Wansan Site, Yilan County: The Application of the Geographic Information System (GIS)**

**Chih-hua Chiang<sup>\*</sup>, Yi-chang Liu<sup>\*\*</sup>**

### **ABSTRACT**

This paper aims to analyze the distribution of features and artifacts uncovered from the Wansan Site in Yilan County by using the Geographic Information System (GIS), particularly focusing on searching for possible house locations through assessing the relationships between the postholes and artifacts. We attempt to explore intra-site spatial patterns in order to set up a foundation for further understanding the Wansan people's daily life.

Three steps are proposed to explore possible locations of the houses. First, we inspect whether the postholes form any visually recognizable groups on maps. Second, we explore the characteristics, differences and spatial relations of these visually recognizable groups by overlaying different maps of burials and artifacts. Last, we use two spatial statistical methods to test whether these posthole groups are also statistically significant.

**Keywords:** Intra-site spatial analysis, Geographic Information System (GIS), spatial statistics, Wansan site

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<sup>\*</sup> Assistant Professor, Department of Anthropology, National Taiwan University

<sup>\*\*</sup> Research Fellow, Institute of History and Philology, Academia Sinica