The Nantaizi site and GIS based archaeological research on craft specialization

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Craft specialization

is a relative state that can be defined as the ratio between producers and consumers.

Craft specialization

is one of the crucial criterions for the evaluation of social complexity.
Archaeological method on craft specialization: intra-site distribution of artifacts and raw materials

**GIS:** computer-based system for handling spatially referenced databases that allow the description analysis

**GIS in Archaeology**
Chronology

- Xinglongwa culture: 6000-5000 B.C.
- Zhaobaogou culture: 5000-4500 B.C.
- Hongshan culture: 4500-3000 B.C.
- Xiaoheyan culture: 3000-2200 B.C.
Xinglongwa site a typical settlement of the Xinglongwa culture
Pottery and jade of the Xinglongwa culture
Stone artifacts of the Xinglongwa culture
Subsistence economy

hunting-gathering
broomcorn domestication
permanent settlement
Initial stage of social complexity

large inner-room burial
jade ornament
large house
Questions

Had craft specialization appeared?
Who controlled craft manufacture?
Plan of the Nantaizi site
Process

Scan site map

Digitalize site map by *cartalinx*

Design and fill in attached table

Export map and table to *Arcview*

Analyze data by *Arcview*
Distribution of stone artifacts at Nantaizi

Legend:
- Black: 12 - 29 pieces
- Gray: 4 - 11 pieces
- White: 0 - 3 pieces

Scale: 0 - 10m
Distribution of stone artifacts at Nantaizi
Conclusion

elementary specialization controlled by leading household might have emerged as early as in the middle Neolithic period in China