VisTA: An Interactive Visualization Tool for Archaeological Data

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VisTA in Meta-Museum

- Meta-Museum is a supportive environment for knowledge sharing between experts and non-experts, creating and promoting the communication between them.
- VisTA is an experimental sub-system of Meta-Museum project.

Goals

- To provide archaeologists a new tool for setting up and testing hypothesis about ancient villages evolution, allowing them to treat spatiotemporal data easily.
- To provide non-experts visually the knowledge discovered by archaeologists.

Features

Users can

- set each building's life span,
- simulate the change over time interactively,
- retrieve information on each building via a web browser,
- walk through the visualized village.

VisTA-walk

- For exhibition use, easier interface is required such as gesture.
- Users can walk through the reconstructed village with natural gesture interaction.
- With a 170 inch-screen, users can enjoy immersive presentation.

References

- Rieko Kadobayashi et al., "MetaMuseum as A New Communication Environment," in Proc. of DPS Workshop, IPSJ, pp. 71-78 (1995) (in Japanese).
- Rieko Kadobayashi et al., "Meta-Museum: A Supportive Environment for Knowledg Sharing," in Proc. of ATR MIC Intelligent Agents Workshop, p.140 (1996).
- Rieko Kadobayashi et al., "Space-time Simulation System for Ancient Village," Archaeological Information, JSAI, Vol.2, No.1, pp.48-55 (1997) (in Japanese).
- Wren, C. R. et al. : Pfinder: real-time tracking of the human body, Tech Report 353,MIT Media Laboratory Perceptual Computing Section (1995).

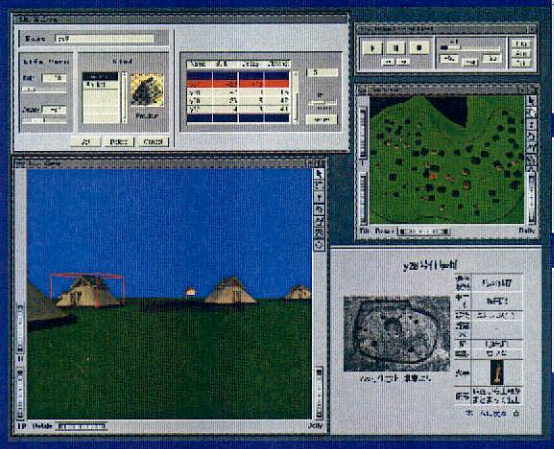
User Interface (for experts)

Edit Window

To set a building's life span and type

Walk-through Window

To show visualized village's image and walk through with a mouse



Simulation Control Window

Bird's Eye View Window

Information Window (Netscape)

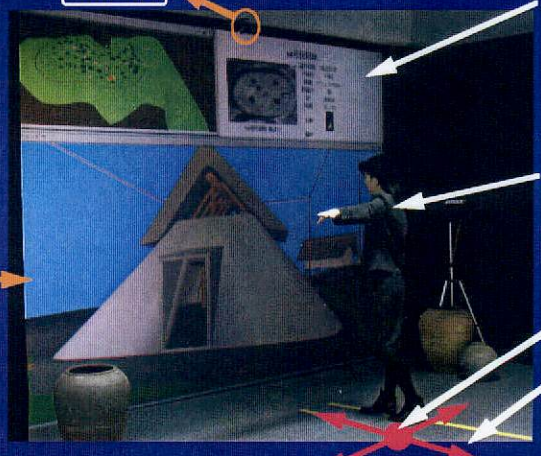
VisTA-walk (for general users)

pfinder ← camera

(This detects a user's position and gesture.)

↓

VisTA →



Information about the selected house

Gesture to select a house

Stop

Go ahead or back

Rotate left or right