

Features of the Internet Geographical Information System

The following informations give a short overview of the structure and the functionality of the developed Internet Geographical Information System (Internet-GIS) with the help of numerous illustrations. The images are explained in more detail by short notes. These remarks show not all possibilities of the system, but rather give an impression of the variety of the developed Internet-GIS. Analysis and processing functions can be recalled by the popup menu and the toolbar. You can find more detailed informations about the use of the system and the program Autodesk MapGuide Viewer in the assistance file, which can be called over the popup menu and the toolbar.

a) Presentation platform

- Simple, discreet and clearly structured internet presentation
- English text blocks and designations, in order to make an international use possible
- Linkage for the cartographic application and presentation of further important informations, as for example general informations about the project, illustrations about the investigation area or references to involve specialized scientists

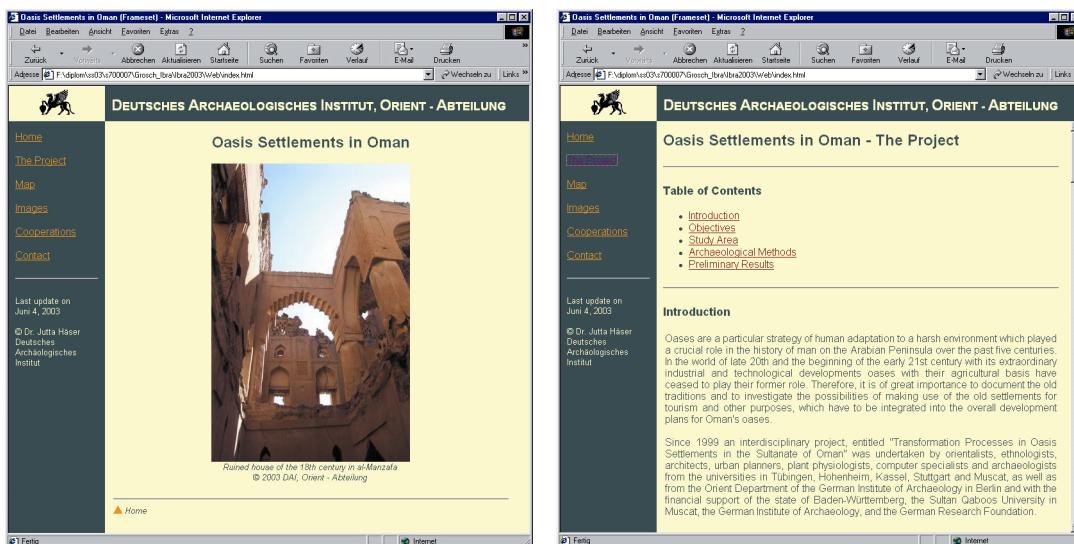


Fig. I: Web pages for the presentation of the developed Internet-GIS
Left: Main side. Right: Side with project presentation

b) Construction of the Internet-GIS

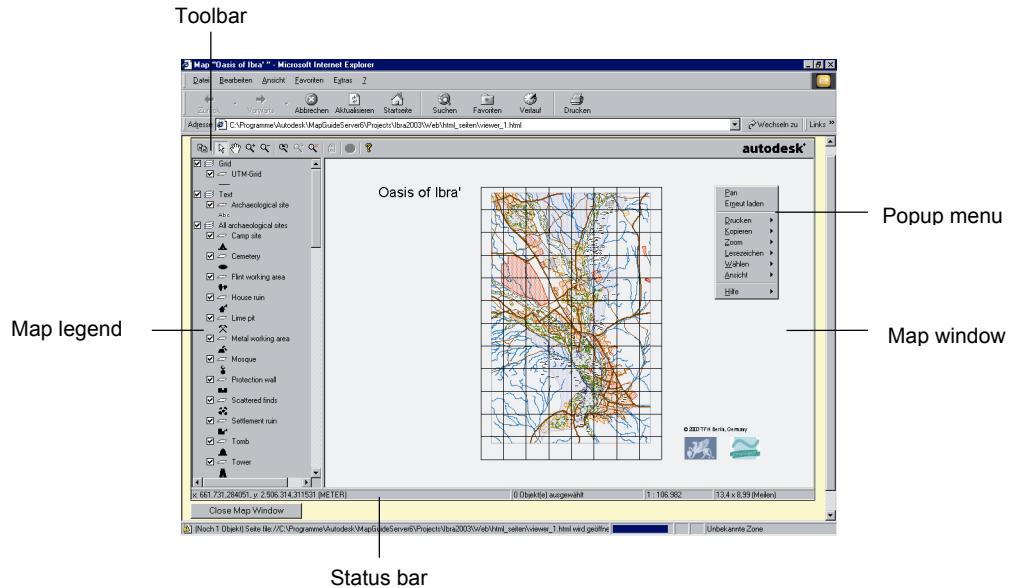


Fig. II: Screen surface of Autodesk MapGuide Viewer with additional comments

c) Design of the Internet-GIS

- Harmonious and clear map design (simple and close to natural colouring, intelligible hatching)
- High clarity by map information in the status bar (coordinate specification, scale etc.) and additional popup windows (MapTip) in the map surface (layer description, object name etc.)

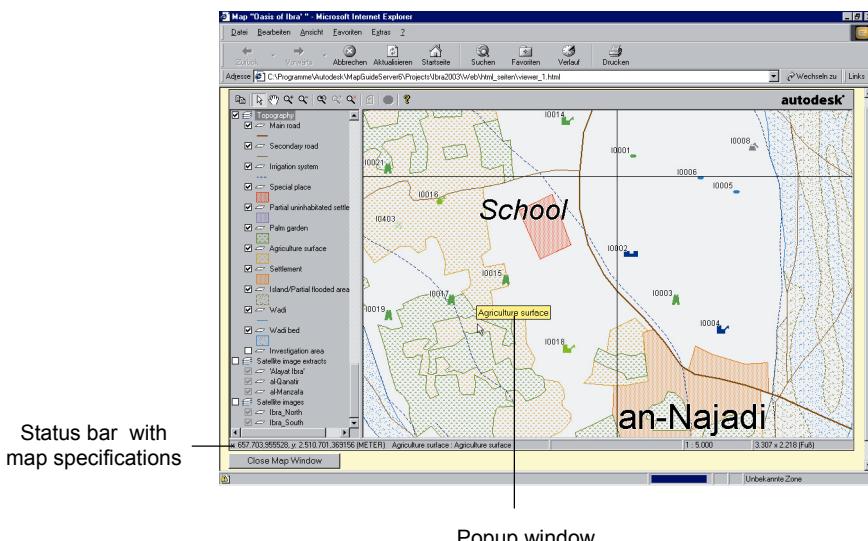


Fig. III: Detail of the map with different objects and additional comments

- High versatility in the view and study of spatial data by different representational variants (raster and vector data) – hybrid Geographical Information System

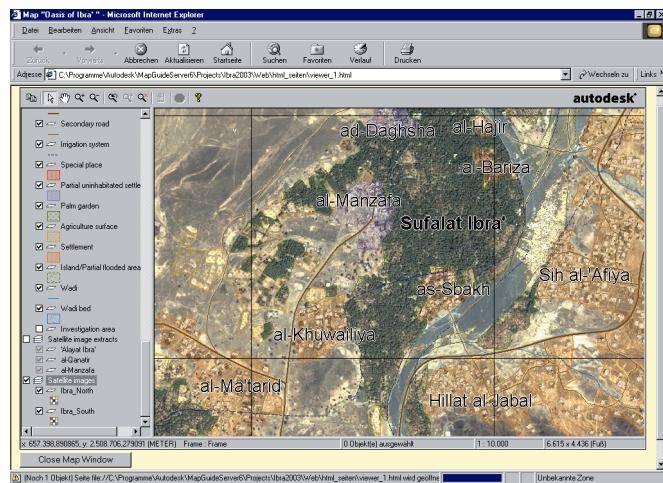


Fig. IV: Detail of the map with satellite image

d) Interactivity of the cartographic representation

- Simple interactive composition options for the map user by the representation of different and special map contents and circumstances

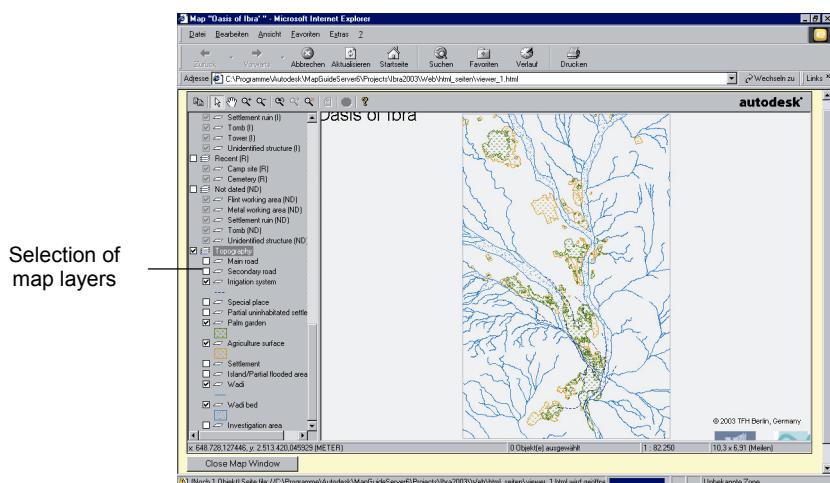
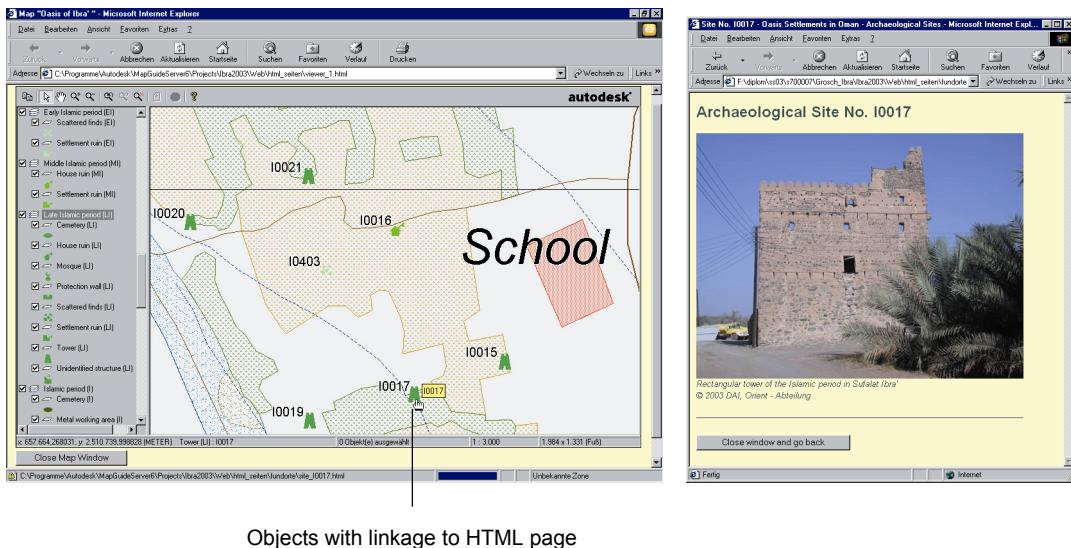


Fig. V: Represent special circumstances
Representation of the agriculture surface (palm gardens and fields) and the irrigation system

e) High information content

- Linkage of archaeological places with HTML pages, whereby additional information can be called up (images, short descriptions etc.)



Objects with linkage to HTML page

Fig. VI: Selection of a linkage to a web page
Left: Selection of the object. Right: HTML page with representation of the object

- Representation of detailed satellite image extracts, in order to clarify structures and connections within the map

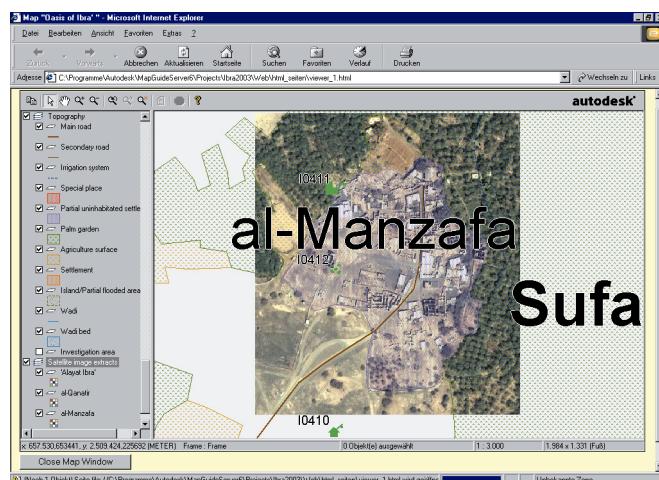


Fig. VII: Representation of the settlement al-Manzafa
Representation of special information by a satellite image and vector geometry (topographical conditions and finding places)

f) User friendliness

- simple and easy to use navigation inside the map (Pan, Zoom)

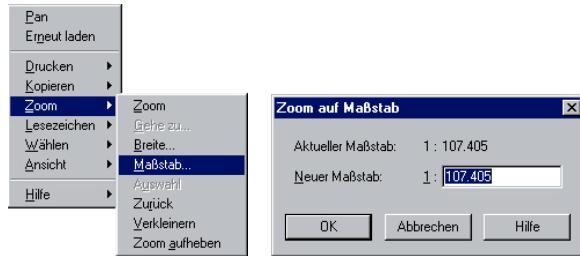


Fig. VIII: Attitudes for zooming to a scale
Left: Popup menu. Right: Dialog field Zoom scale

- simple and clear selection of objects



Fig. IX: Attitudes for selecting map features by name
Left: Popup menu. Right: Dialog field Select Map Features

g) Analysis and processing options

- Measurements of distances between individual points and over a longer distance (several intermediate points)

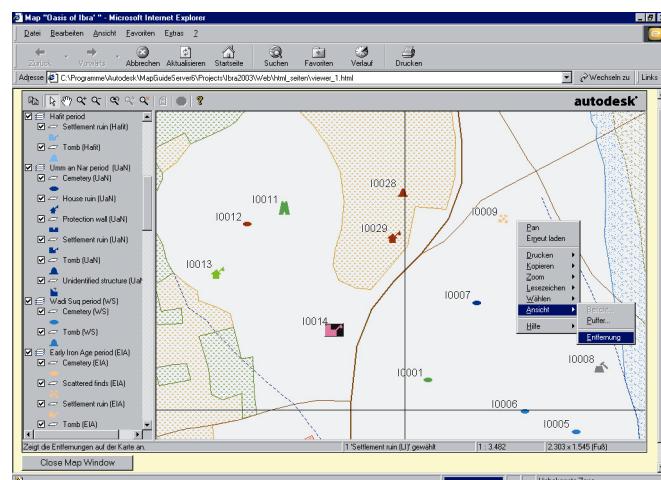


Fig. X: Selection of the function for the measurement of distances

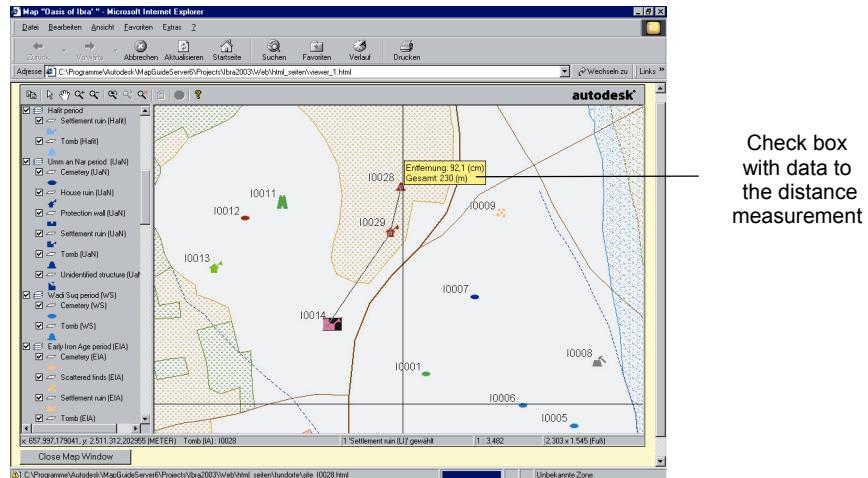


Fig. XI: Representation of a distance measurement over several points

- Creation of buffers around an object, in order to make additional analysis possible (relations between objects etc.)

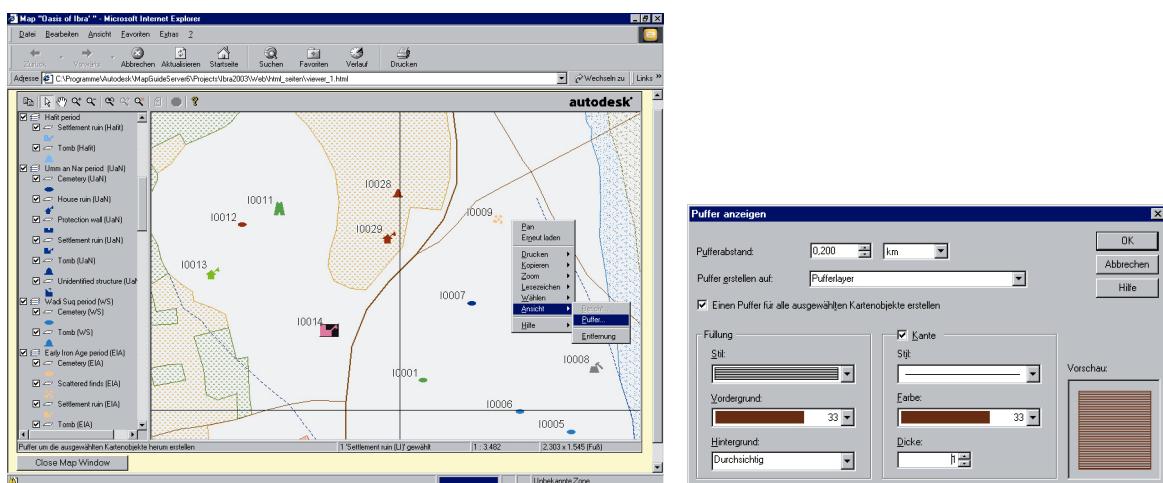


Fig. XII: Arrangement of a buffer

Left: Inquiry of the function for the creation of a buffer. Right: Dialog field View Buffer

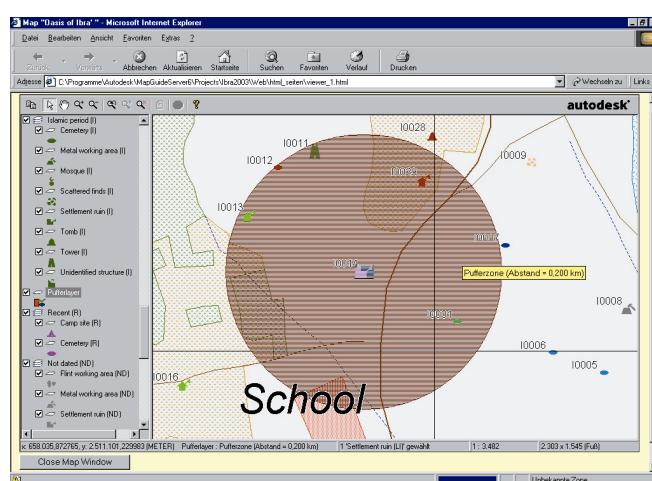


Fig. XIII: Representation of the provided buffer in the map