DANS is an institute of KNAW and NWO

Data Archiving and Networked Services

Dutch archaeological data depositing, processing, archiving and accessing at DANS

a repository with ten years of history, setting its sails to the future

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Data Manager

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DANS is an institute of KNAW and NWO
Data Archiving and Networked Services

- Established in 2005
  Predecessors dating back to 1964 (Steinmetz Foundation)
- Institute of the Royal Netherlands Academy of Arts and Sciences (KNAW)
- Co-founded by the Netherlands Organization for Scientific Research (NWO)
- Objective: permanent preservation of, and enabling access to scientific research data

E-Depot voor de Nederlandse Archeologie
(E-Depot for the Dutch Archaeology)
Main activities and services

**DANS**

- encourages researchers to archive and reuse data in a sustained manner, e.g. through the use of the Electronic Archiving System EASY: [https://easy.dans.knaw.nl](https://easy.dans.knaw.nl)

- provides access via the NARCIS portal [http://www.narcis.nl](http://www.narcis.nl) to thousands of scientific datasets, e-publications and other research information in the Netherlands

- manages the Dataverse network [https://dataverse.nl](https://dataverse.nl) for sharing and safe storage of data during research

- provides training and advice, and performs research into sustained access to digital information (Data Seal of Approval, Persistent Identifier Infrastructure)
Open Archival Information System
reference model for archives
(the most common slide in presentations about digital archiving)
International standards and guidelines

- **BASIC CERTIFICATION** is granted to repositories which obtain DSA certification
- **EXTENDED CERTIFICATION** is granted to Basic Certification repositories which *in addition* perform a structured, externally reviewed and publicly available self-audit based on ISO 16363 or DIN 31644
- **FORMAL CERTIFICATION** is granted to repositories which *in addition* to Basic Certification obtain full external audit and certification based on ISO 16363 or equivalent DIN 31644.

See: [www.trusteddigitalrepository.eu](http://www.trusteddigitalrepository.eu)
DANS policy

- It is not important where data is stored if the repository complies to international standards and guidelines of trustworthiness

- Funding organizations should oblige researchers to deposit their research data in a Trusted Digital Repository

- Researchers should share/deposit their research data: “Open if possible, protected if necessary”

- Persistent Identifiers should be used for referencing data sources in scientific publications
Data archiving and archaeology

Managing digital results of fieldwork: a growing concern
Pre-2004: no data archiving in Dutch archaeology
2004-2006
Pilot project EDNA
Universities & DANS-predecessor NIWI
=> Raising awareness and concern for archaeological data preservation, user enquiry
=> Inventorising datasets, archiving selection
Exemplary

ADS (Archaeology Data Service)
2005-2009

- Subsidies Gratama foundation / Leiden University
  => Scanning project ‘grey’ literature

- Subsidy NWO
  (Nederlandse Organisatie voor Wetenschappelijk Onderzoek / Netherlands Organization for Scientific Research)
  => Retrospective archiving of datasets

- Embedding in DANS EASY

- National regulation in KNA
  (Kwaliteitsnorm Archeologie / Quality Norm Archaeology)
2009-present

- NWO-subsidised Odyssee-project (2009-2010) => Project database for undeveloped research

- Improving accessibility through various projects

- Ongoing archiving and publication of datasets
EASY
Electronic Archiving SYstem

- Dataset overview
- Persistent Identifier
- Description
- Data files (N)
- Advanced search
- Search
- Browse
EASY
Electronic Archiving SYstem

- Download
- View details
- Data files (N)
- Size
- Accessibility
- Directories
- Checkbox
- File
Deposit dataset – Dublin Core metadata fields

- Title
- Alternative Title
- Creator
- Contributor
- Date created
- Rights holder
- Publisher

Repeat field

(Academic) Title(s)
Initials
Prefix
Surname
Digital Author ID (DAI)
Organisation
Rights

Open access
Unrestricted access for all registered EASY users

Restricted: archaeology group
Access restricted for registered group members

Restricted: request permission
Registered users after depositor permission is granted

Other access
Data accessible in another way or elsewhere
Before a dataset is made accessible to the public, an archivist needs to go through the general workflow, which comes down to:

- Check Dublin Core, edit/modify where necessary
- Assign project codes (if required)
- Download files, check for completeness
- Migrate files to preferred formats
- Modify directory structure (if necessary)
- Upload preferred formats
- Check individual file metadata, edit/modify if necessary
- Add individual file metadata
- Publish files (set visibility/accessibility rights)
- Create a ‘Jumpoff’ presentation page
- Check workflow
- Publish dataset
- Relate dataset to related datasets or web pages
- End administration
Files are converted to Preferred Formats. We also see if re-structuring files and folders would add to the clarity and coherence of the dataset.
A workgroup at DANS researched several file types in recent years (2008-2010) in order to compile a list of Preferred Formats. We are presently in the process of revising our list of Preferred Formats.

Avoid re-inventing wheels! Many wheels have been designed, or are in motion.

http://www.dans.knaw.nl/en
http://edna.dans.knaw.nl/

Also: the ADS/Digital Antiquity Guides to Good Practice
http://guides.archaeologydataservice.ac.uk/
Your 7 steps to sustainable data

Are you looking for sustainable storage of your research data? With EASY, the online archiving system from DANS, you can save your data in a secure and future-proof manner.

You yourself decide how your data will be accessible to others. At DANS, you set up your own digital archive in seven easy steps.

1. **Prepare your data**
   Select the relevant data files. Check them for privacy aspects and file format issues against the guidelines issued by DANS.

2. **Go to EASY**
   Log in at [http://easy.dans.knaw.nl](http://easy.dans.knaw.nl). If you are new to EASY, you will have to register for an account first.

3. **Start the deposit procedure**
   Go to ‘New deposit’, select your discipline and click ‘Start deposit’.

4. **Documentation and access level**
   Describe the dataset and indicate whether it is open access or conditionally accessible.

5. **Upload your data files**
   Select your data files and click ‘Upload dataset’.

6. **Submit your data files**
   Accept the license agreement and send your dataset to DANS by clicking the ‘Submit’ button.

7. **Publication by DANS**
   DANS will verify the dataset and publish it with the access level set by you. Your data have now been sustainably archived and will be accessible to others on a permanent basis.
Datasets in EASY

September 30, 2014:
22.679 archaeological datasets | 70% available without restrictions
Archaeological data deposited in EASY

- Field drawings (scans)
- CAD drawings/GIS maps
- Data tables (databases / spreadsheets)
- Photographs
- Images
- Publications
- Reports
RCE Rijksdienst voor het Cultureel Erfgoed / The Cultural Heritage Agency of the Netherlands
ARCHIS: GIS-based archaeological registration system
Provincial depots

Finds and documentation
Existing archives
Structured summary of research / site

Archis

Information Service

DANS data repository

Data / Documentation forms, field drawings, databases, GIS

Provincial depots

Municipal depots

RCE library

KB

Publications

Finds artefacts, samples
ABR: ‘Archaeological Basic Register’
The Cultural Heritage Agency of the Netherlands (RCE), 1992
Basic terminology for archeological information systems

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<td>Bracelet</td>
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Unstandardised field documentation / data tables
Digital ‘Pakbon’ (‘Packing slip’): XML-based standardisation

- General project metadata
- Basic description of materials and artefacts
- Includes ABR codebook standardized metadata
- Unique ID strings
- Part of the new specification of the KNA (national quality norm for archaeology)
- National exchange protocol for archaeological research data
- Developed by the SIKB network in co-operation with the Dutch archaeological sector
EASY on-line deposit procedure

Import (meta-)data from other sources

New deposit

Browse

Upload

If you do not have a ‘pakbon’ or Archis metadata, proceed to step 2

Import ‘pakbon’

Import Archis metadata

(optional step)
Data managing workflow
Data archiving standards
Certification for data archives

Guides to Good Practice

Preferred Formats

‘Digital Packing Slip’
Field and project data
XML-standard

Persistent Identifiers

EASY
data archive

National regulation in KNA
(Quality Norm Archaeology)

‘Archaeological Basic Register’
National Codebook/Thesaurus