Lightweight Information Describing Objects

Contributing Content to Cultural Heritage Repositories

Why a standard format for contributing content?

- Increasing relevance of internet presence for museums and other collections
- Increasing necessity to integrate your data in online services: facilitate resource discovery in a cross-collection and even cross-sectoral (archives, libraries, museums) manner
- Need for a convenient instrument to provide core data on museum objects
  - from different collections / object classes
  - from different data structures
  - from different software systems

LIDO

Lightweight Information Describing Objects

Purpose

Why

Zoological Museums

Archaeological Museums

Botanical Gardens

Computer Collections

Geological and Mineralogical Museums

Medical and Pharmaceutical Collections

Museums of Cultural History

Museums of Fire Fighting

Theatre History Collections

Art Museums

LIDO
Lightweight Information Describing Objects

Purpose

What it is

XML Schema for Contributing Content to
Cultural Heritage Repositories

- For delivering metadata, for use in a variety of online services, from an organization's online collections database to portals of aggregated resources – as well as exposing, sharing and connecting data on the web.
- Intended to represent the full range of descriptive information about museum objects, e.g. art, cultural, technology and natural science.
- It supports multilingual environments.

LIDO is NOT

- A fully developed data exchange format.
- A format designed for proper cataloging – it is not intended to be used as a basis for a collection management system or to support loan and acquisition activities.

Schema Design

Construction Principles

- Provide a specification and related XML schema that describes cultural materials appropiately
- Individual data providers can decide on how light – or how rich – they want their contributed metadata records to be
- Allow for delivering data and resources relating to your objects
- Include links from contributed metadata back to records in their 'home' context

Schema Design

Construction Principles

Cont.:

- Allow for delivery of full information: a record can include all the necessary information for display and retrieval of your object
- Allow for identification of each referenced entity, e.g. provide references to controlled vocabulary and authority files.
- Provide optimised metadata for retrieval on one hand and for display on the other -> distinction of display and indexing elements

Schema Design

Groups of Information

Descriptive and administrative information groups in LIDO

- Object Classifications –

Object / Work Type (*mandatory*)

Classification

-Object Identifications –

Title / Name (*mandatory*)

Inscriptions

Repository / Location

State / Edition

Object Description

Measurements

-Events –

Event Set

-Relations –

Subject Set

Related Works

-Administrative Metadata –

Rights

Record (*mandatory*)

Resource

Schema Design

Mandatory elements

- Object Classifications –

Object / Work Type (*mandatory*)

Classification

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Resource

Multilinguality

Full support of multilinguality

- xml:lang mandatory for default language on high-level elements
  descriptiveMetadata and administrativeMetadata

Two possibilities to provide multi-lingual entries:

- Repeat the high-level elements with different xml:lang attributes for fully multi-lingual resources

or

- Repeat text-level elements with different xml:lang attributes for providing translations only for just a few elements

Schema Design

Multilinguality

Full support of multilinguality - Example

```
<lido:lido>
  <lido:lidoRecID lido:type="local">1300_MFV 1893-237</lido:lidoRecID>
  <lido:category lido:source="CIDOC-CRM v5.0.1">E22.Man-Made_Object</lido:category>
  <lido:descriptiveMetadata xml:lang="de">
    <lido:objectClassificationWrap>…</lido:objectClassificationWrap>
    <lido:objectIdentificationWrap>…</lido:objectIdentificationWrap>
    <lido:eventWrap>
      <lido:eventSet>
        <lido:event>
          <lido:eventType>
            <lido:term>Production</lido:term>
          </lido:eventType>
          …
          <lido:eventMaterialsTech>
            <lido:materialsTech>
              <lido:termMaterialsTech lido:type="Material">
                <lido:term>Ton</lido:term>
                <lido:term xml:lang="en">clay</lido:term>
              </lido:termMaterialsTech>
            </lido:materialsTech>
          </lido:eventMaterialsTech>
        </lido:event>
      </lido:eventSet>
    </lido:eventWrap>
  </lido:descriptiveMetadata>
  <lido:administrativeMetadata xml:lang="de">…</lido:administrativeMetadata>
</lido:lido>
```

xml:lang on high-level element descriptiveMetadata

Material
Ton@de
clay@en

Schema Design

Identifier Handling

- Distinguish identifiers for an entity itself and a webresource about it!
- Identifiers are repeatable
- Entities including an identifier el.:

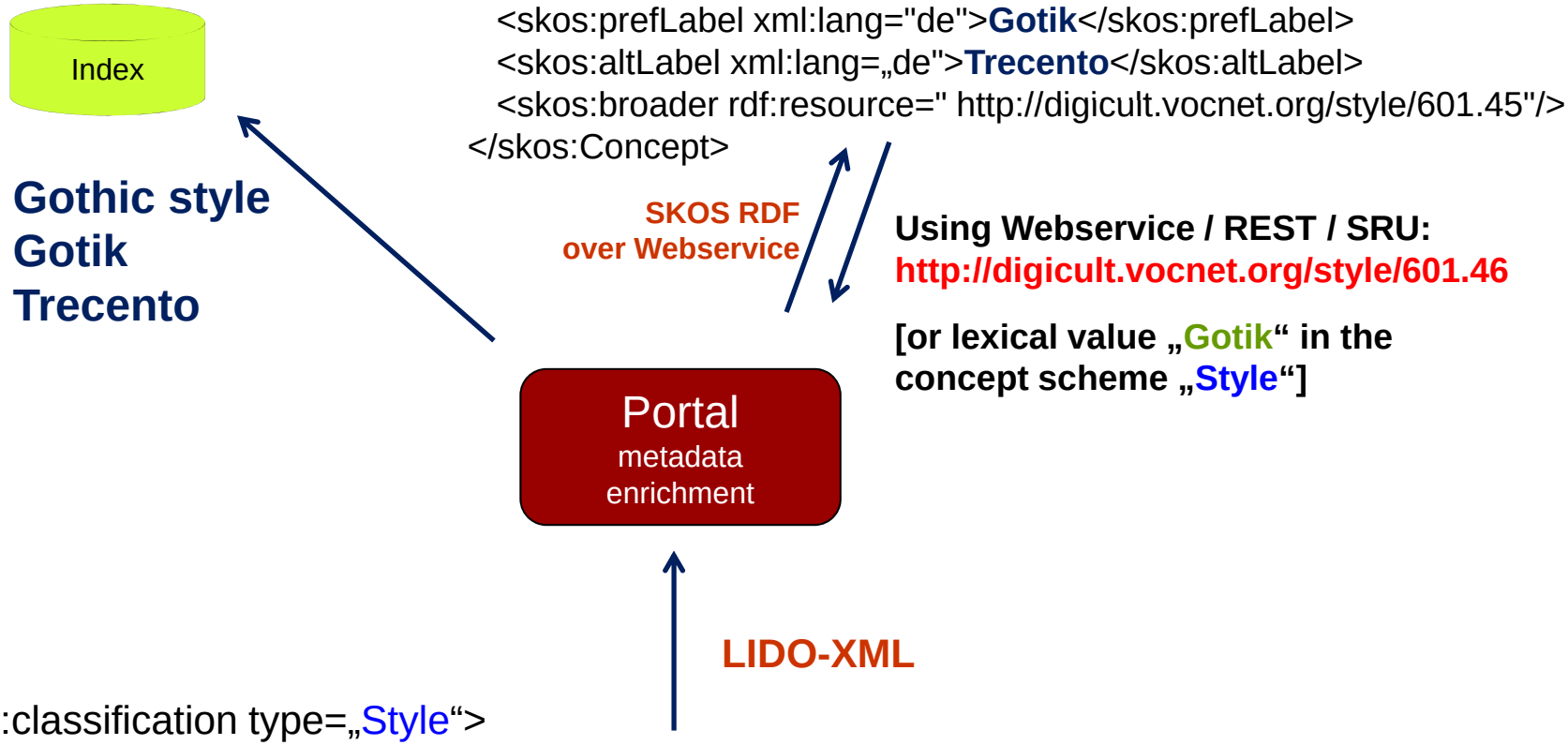
  - Concept
  - Actor / Legal Body Ref
  - Place
  - Event
  - Object

- Example:

<lido:conceptID lido:type="URL" lido:source="Iconclass"> http://iconclass.org/sw/44G123</lido:conceptID>

Schema Design

References to Controlled Vocabulary




```
<skos:Concept rdf:about=" http://digicult.vocnet.org/style/601.46">
  <skos:prefLabel xml:lang="en">Gothic style</skos:prefLabel>
  <skos:prefLabel xml:lang="de">Gotik</skos:prefLabel>
  <skos:altLabel xml:lang=„de">Trecento</skos:altLabel>
  <skos:broader rdf:resource=" http://digicult.vocnet.org/style/601.45"/>
</skos:Concept>
```

```
…
<lido:classification type=„Style“>
    <lido:conceptID lido:type="URL">http://digicult.vocnet.org/style/601.46</lido:conceptID>
    <lido:term xml:lang="de">Gotik</lido:term>
</lido:classification>
…
```

Schema Design

Display <> Index

Display and Index elements – basic structure:

xxxWrap (0-1)

- xxxSet (0-unbounded)
  - displayXXX (0-unbounded) (for language variants only)
  - XXX (0-1)

e.g.

objectMeasurementsWrap

- objectMeasurementsSet
  - displayObjectMeasurements
  - objectMeasurements

objectMeasurementsSet

displayObjectMeasurements: **44,3 x 35,4 cm (Blatt); 10 Bildfelder**

objectMeasurements

measurementsSet: (value: 44,3) (unit: cm) (type: Höhe)
measurementsSet: (value: 35,4) (unit: cm) (type: Breite)
extentMeasurements: **Blatt**

Structure

Object Classification

- Object Classifications –

Object / Work Type (*mandatory*)

Classification

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Title / Name (*mandatory*)

Inscriptions

Repository / Location

State / Edition

Object Description

Measurements

-Events –

Event Set

-Relations –

Subject Set

Related Works

-Administrative Metadata –

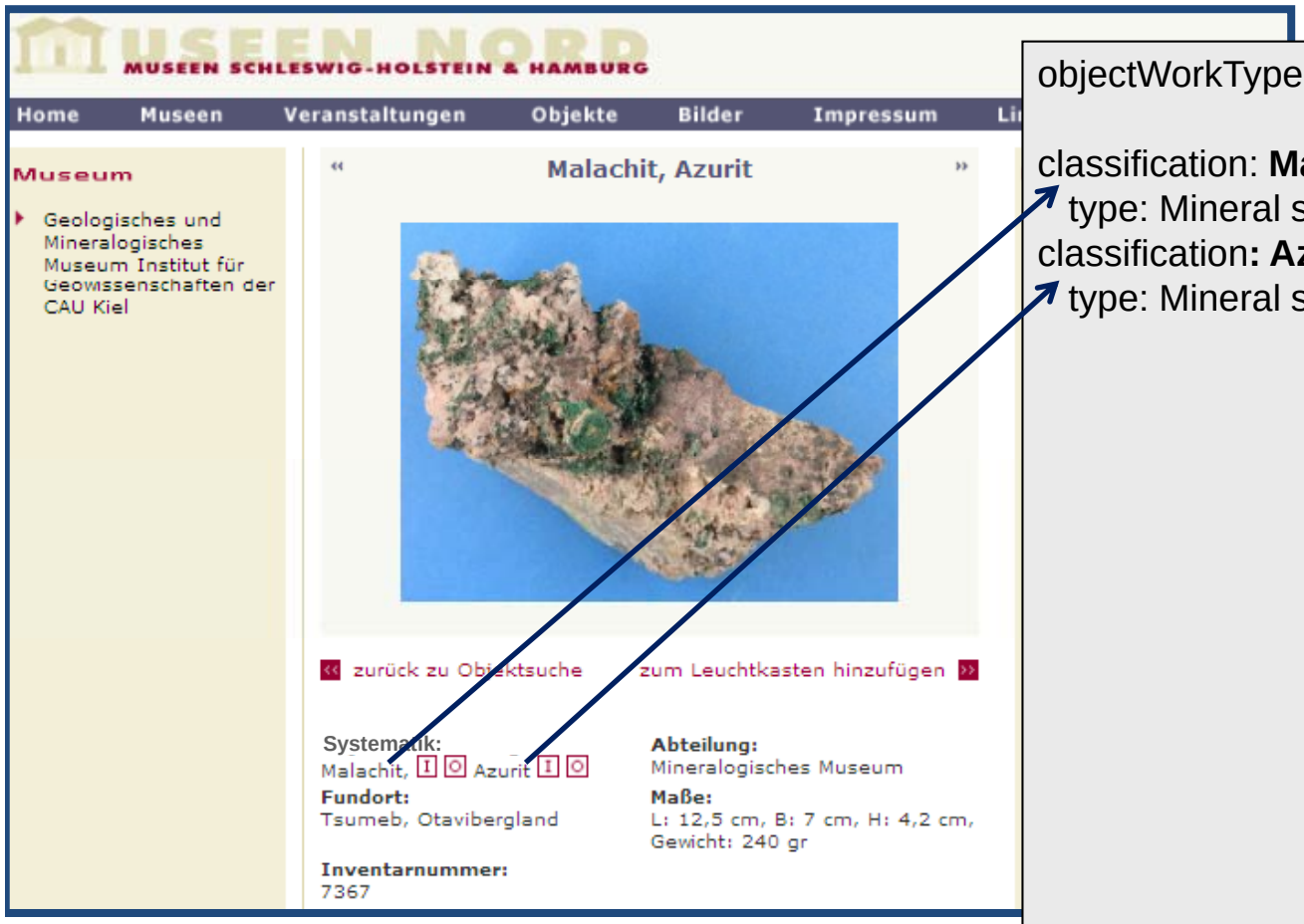
Rights

Record (*mandatory*)

Resource

Structure

Object Classification



objectWorkType: **Mineral**

classification: **Malachit**
type: Mineral systematic
classification**: Azurit**
type: Mineral systematic

Structure

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Resource

Structure

Object Identification

objectWorkType: **Mineral**

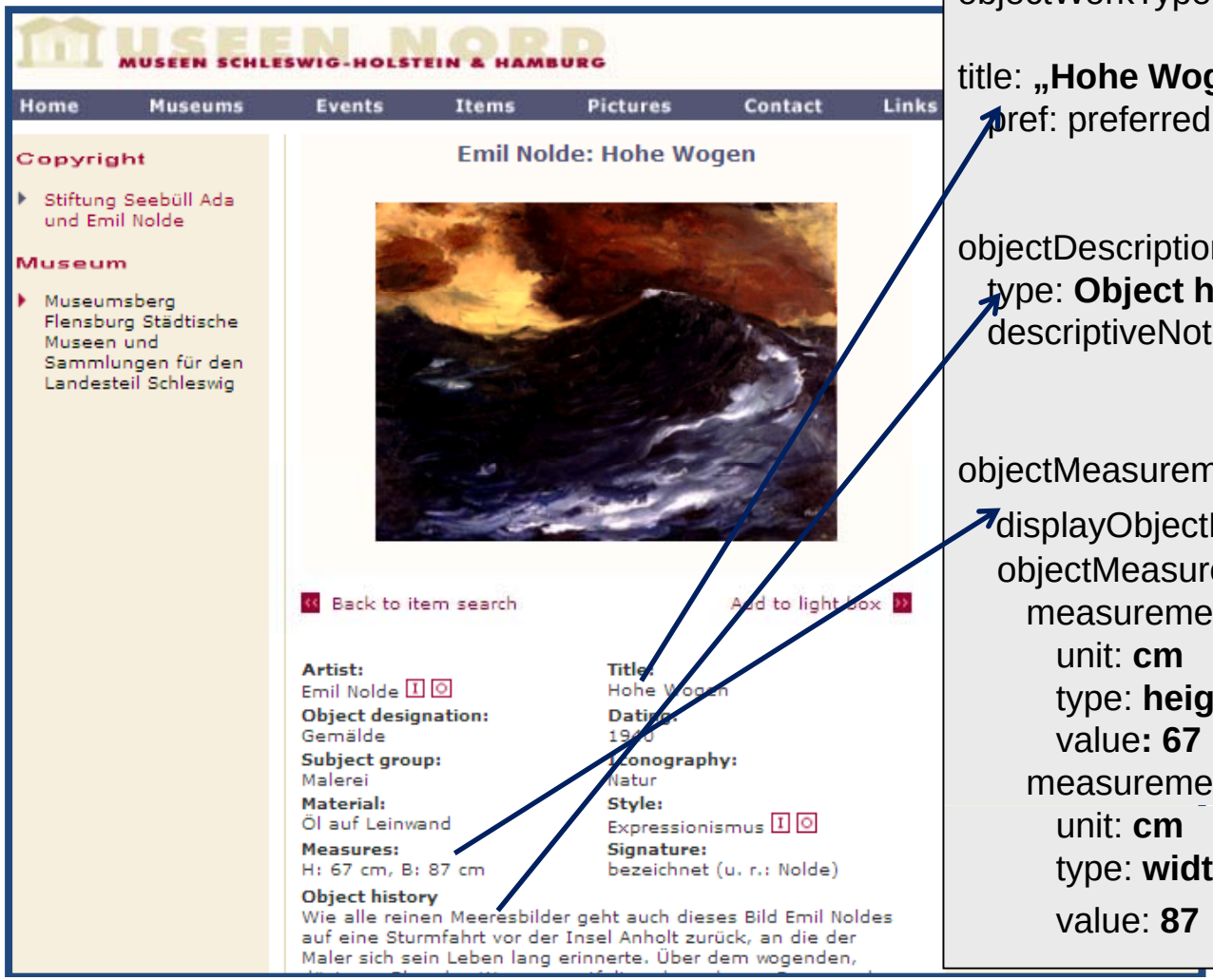
classification: **Malachit**
type: Mineral systematic
classification**: Azurit**
type: Mineral systematic

title: **Mineral**
type: **object name**

mandatory

Structure

Object Identification



objectWorkType: **Gemälde**

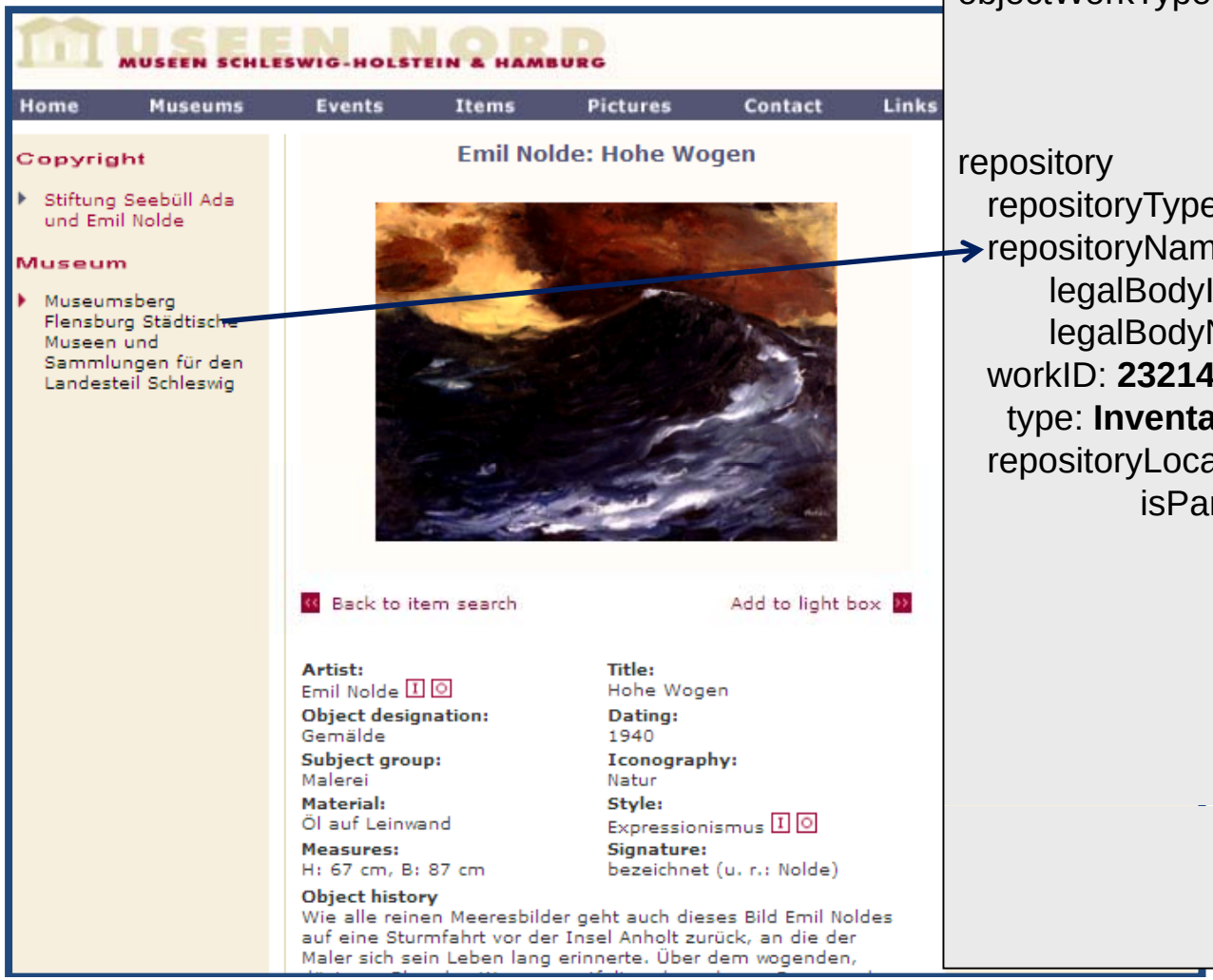
title: **„Hohe Wogen“**
  pref: preferred

objectDescriptionSet
  type: **Object history**
  descriptiveNote: **„Wie alle reinen Meeresbilder ...“**

objectMeasurementsSet
  displayObjectMeasurements: **H: 67 cm, B: 87 cm**
  objectMeasurements
    measurementsSet
      unit: **cm**
      type: **height**
      value**: 67**
    measurementsSet
      unit: **cm**
      type: **width**
      value: **87**

Structure

Object Identification



objectWorkType: **Gemälde**

Designation and unambiguous identification of the institution of custody

repository
  repositoryType: **current**
  repositoryName:
    legalBodyID **http://d-nb.info/gnd/2166186-8**
    legalBodyName **Museumsberg Flensburg**
  workID: **23214**
  type: **Inventarnummer**
  repositoryLocation: **House 1, Room Nr. 5**
    isPartOf **Museumsberg**
      isPartOf **Flensburg**

exact Location

Event <> Subject

No artist? No creation date? No finding place?

Museum objects may relate to any actor, date, or place in two ways:

- The object was present at an event (such as creation, find, use, …)
  - having participants / carried out by some actors
  - at some time
  - in some place

or

- The object refers to such entity by
  - depicting it
  - „being about“

Structure

Event

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Object / Work Type (*mandatory*)

Classification

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Inscriptions

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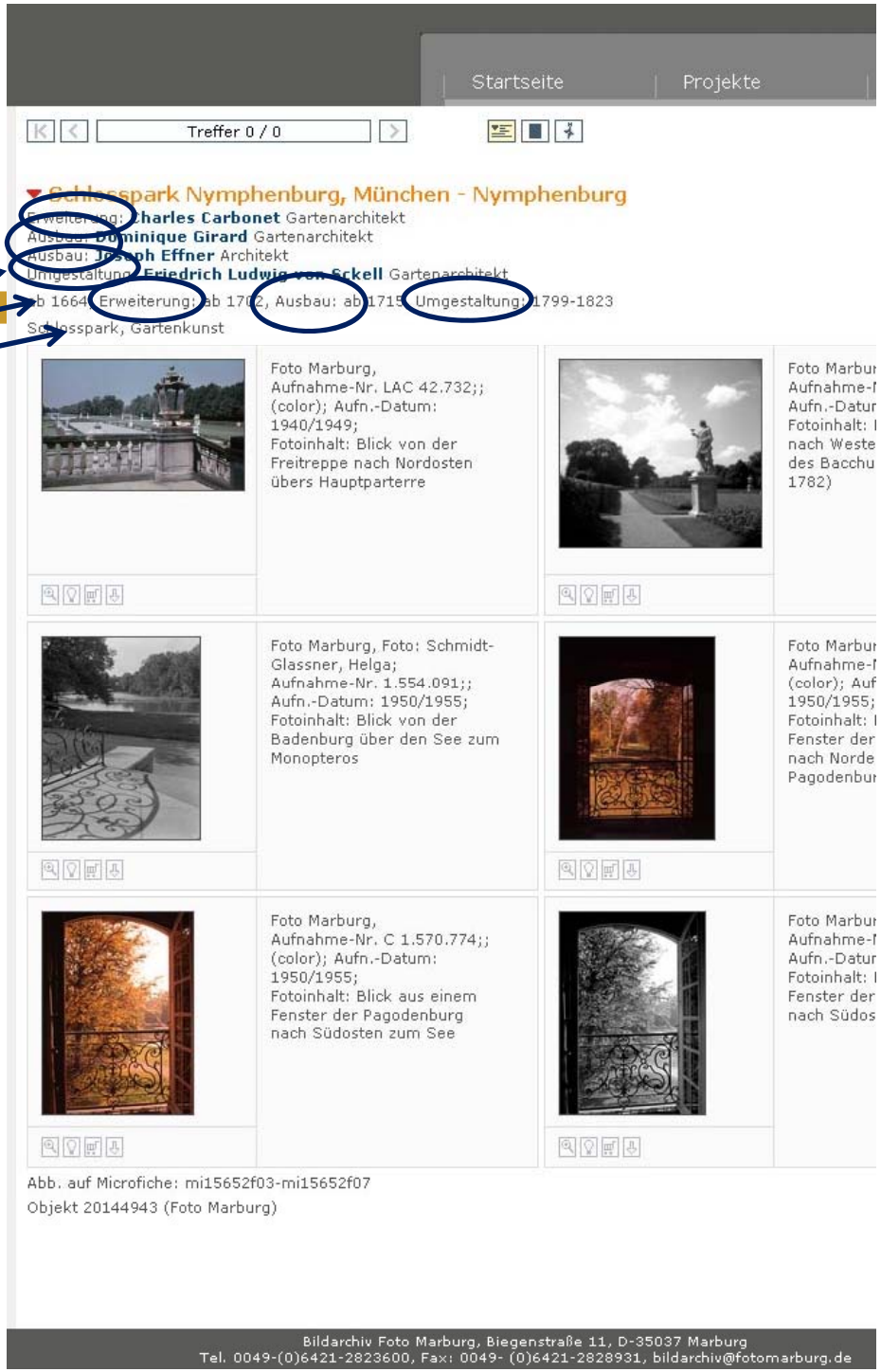
Resource

LIDO

Lightweight Information Describing Objects

Event

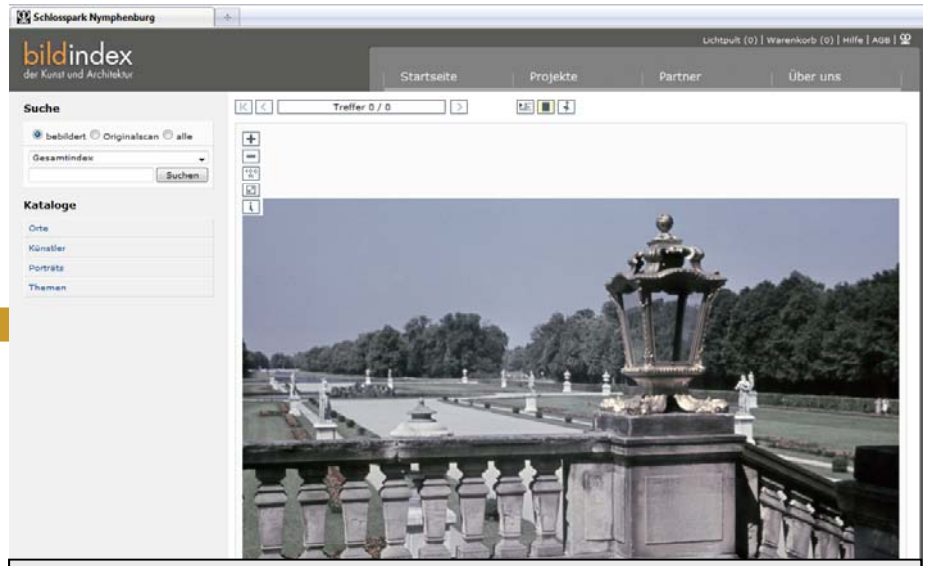
- Event Identifier
- **Event Type**
- Role in Event
- Event Name
- **Event Actor**
- Culture
- **Event Date**
- Period
- **Event Place**
- Event Method
- Materials / Technique
- Thing Present
- Event Related
- Event Description



LIDO
Lightweight Information Describing Objects

Event

- Event Identifier
- Event Type
- Role in Event
- Event Name
- Event Actor
- Culture
- Event Date
- Period
- Event Place
- Event Method
- Materials / Technique
- Thing Present
- Event Related
- Event Description



objectWorkType: **Schlosspark**
title: **Schlosspark Nymphenburg**

event
  eventType **Herstellung / Creation**
  eventActor
    displayActorInRole **unknown**

eventDate
    displayDate **ab 1664**
    date
      earliestDate **1664**
      latestDate **1664**
  eventPlace
    place
      namePlace **München - Nymphenburg**

LIDO
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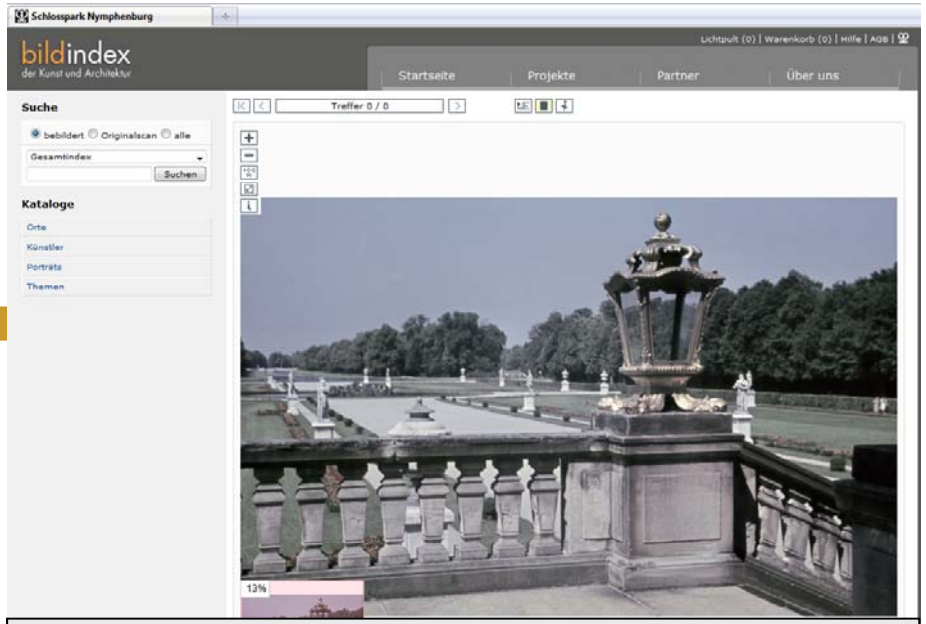
- Event Actor
- Culture
- Event Date
- Period
- Event Place
- Event Method
- Materials / Technique
- Thing Present
- Event Related
- Event Description

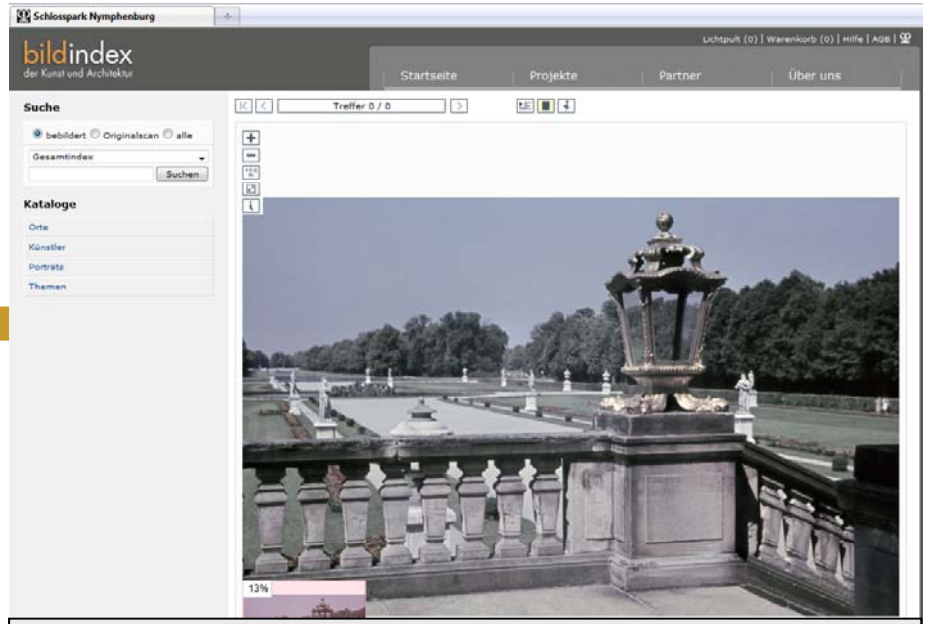


objectWorkType: **Schlosspark**
title: **Schlosspark Nymphenburg**

event
  eventType **Erweiterung / Part Addition**
  eventActor
    displayActorInRole **Charles Carbonet (1701?-171**
    actorInRole
      actor
        nameActor **Carbonet, Charles**
      roleActor **Gartenarchitekt**
  eventDate
    earliestDate **1702**
    latestDate **1702**
  eventPlace
    place
      namePlace **München - Nymphenburg**

Event

- Event Identifier
- Event Type
- Role in Event
- Event Name
- Event Actor
- Culture
- Event Date
- Period
- Event Place
- Event Method
- Materials / Technique
- Thing Present
- Event Related
- Event Description

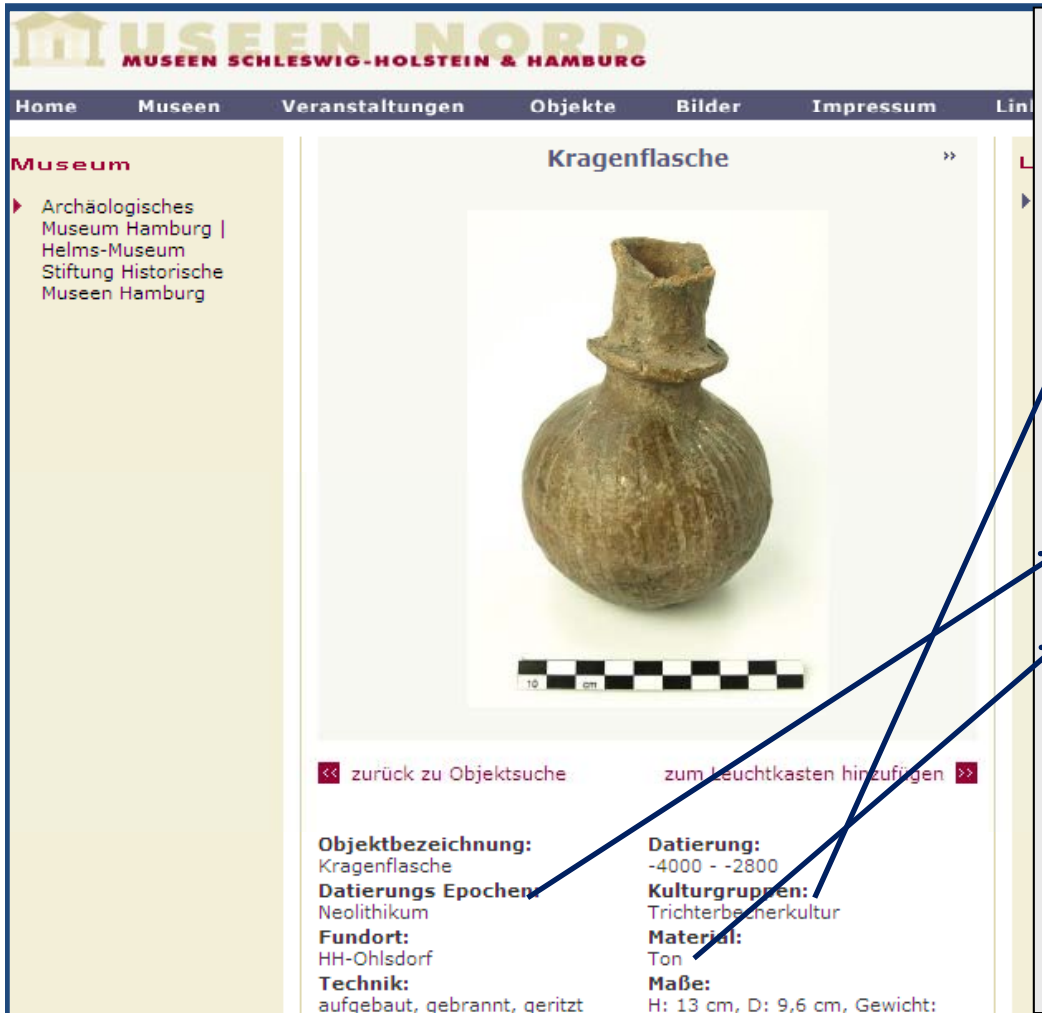


objectWorkType: **Schlosspark**
title: **Schlosspark Nymphenburg**

event
  eventType **Umgestaltung / Modification**
  eventActor
    displayActorInRole **Friedrich L. von Sckell**
    actorInRole
      actor
        nameActor **Sckell, Friedrich Ludwig von**
      roleActor **Gartenarchitekt**
  eventDate
    earliestDate **1799**
    latestDate **1823**
  eventPlace
    place
      namePlace **München - Nymphenburg**

Structure

Event



objectWorkType: **Kragenflasche**

event

eventType **Production**

culture **Trichterbecherkultur**

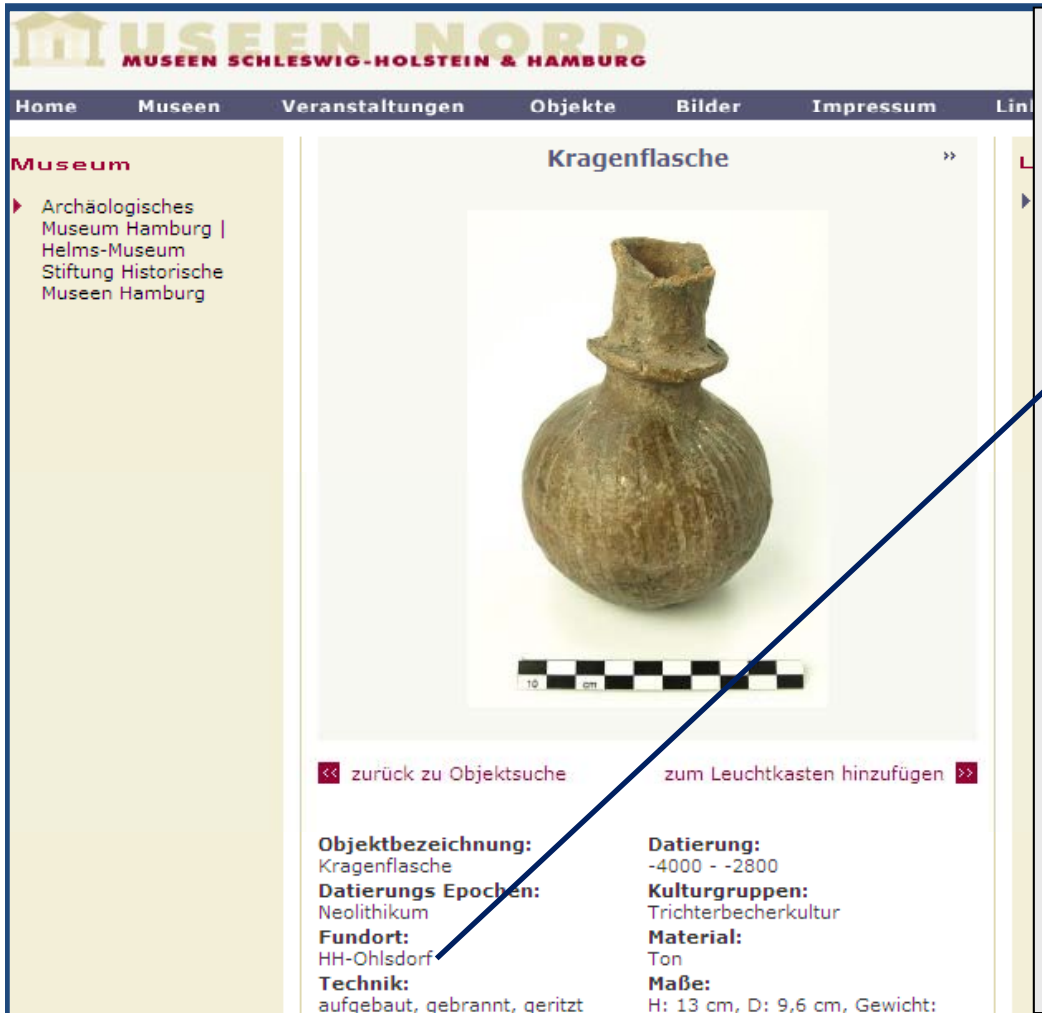
eventDate
earliestDate **-4000**
latestDate **-2800**

periodName **Neolithikum**

eventMaterialsTech
materialsTech
termMaterialsTech **Ton**

Structure

Event



objectWorkType: **Kragenflasche**

event
- eventType **Find**
- eventPlace
  - place
    - namePlace **HH-Ohlsdorf**
    - partOfPlace
      - namePlace **Hamburg**

Structure

Subject / Content

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Subject Set

Related Works

-Administrative Metadata –

Rights

Record (*mandatory*)

Resource

Structure

Subject / Content

–Extent Subject
–Subject Concept
–Subject Actor
–Subject Date
–Subject Place
–Subject Event
–Subject Object

subjectSet
subject (type: Ikonographie)
subjectConcept
conceptID: **25 I 24** (type: local) (source: Iconclass)
term: **Dorfbewohner, Dörfler**

subjectSet
subject (type: Ikonographie)
subjectConcept
conceptID: **46 A 13 2** (type: local) (source: Iconclass)
term: **öffentliche Straße in einem Dorf**

subjectSet
subject (type: Ikonographie)
subjectConcept
conceptID: **43 B 31** (type: local) (source: Iconclass)
term: **Gasthaus, Kaffeehaus, Kneipe, etc.**

Structure

Subject / Content

07010042,T
H 462a

Holzschnitt/Woodcut:
Bildnis des Johann Aventinus

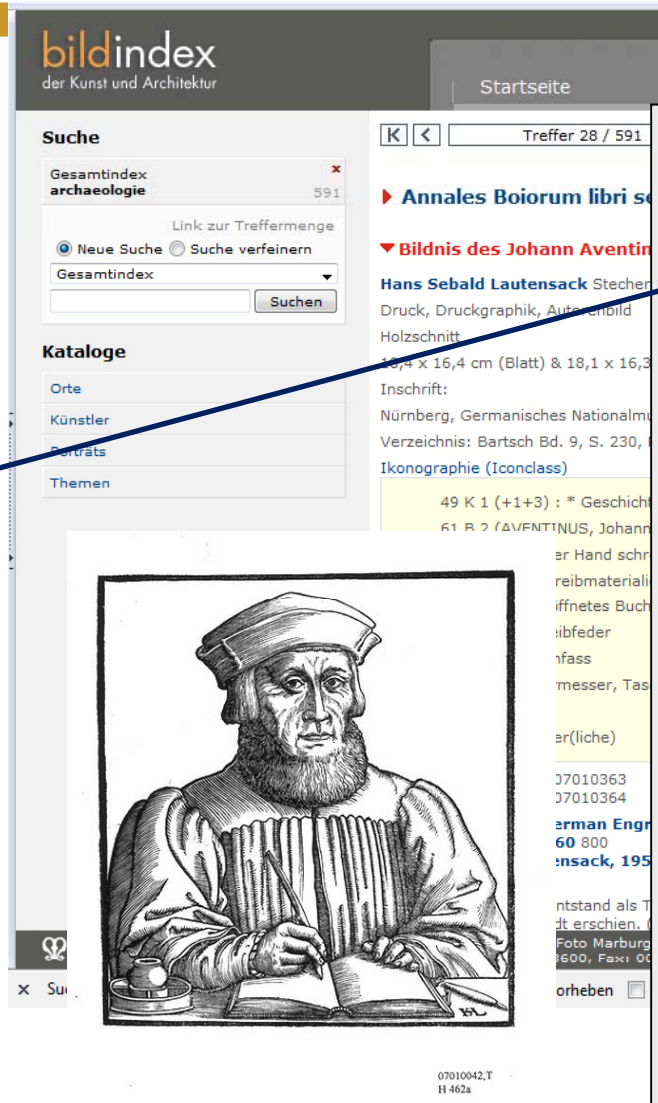
creator: Hans Sebald Lautensack -> Event

depicted Person: Johann Aventius -> Subject Actor

Structure

Subject / Content

–Extent Subject
–Subject Concept
–Subject Actor
–Subject Date
–Subject Place
–Subject Event
–Subject Object

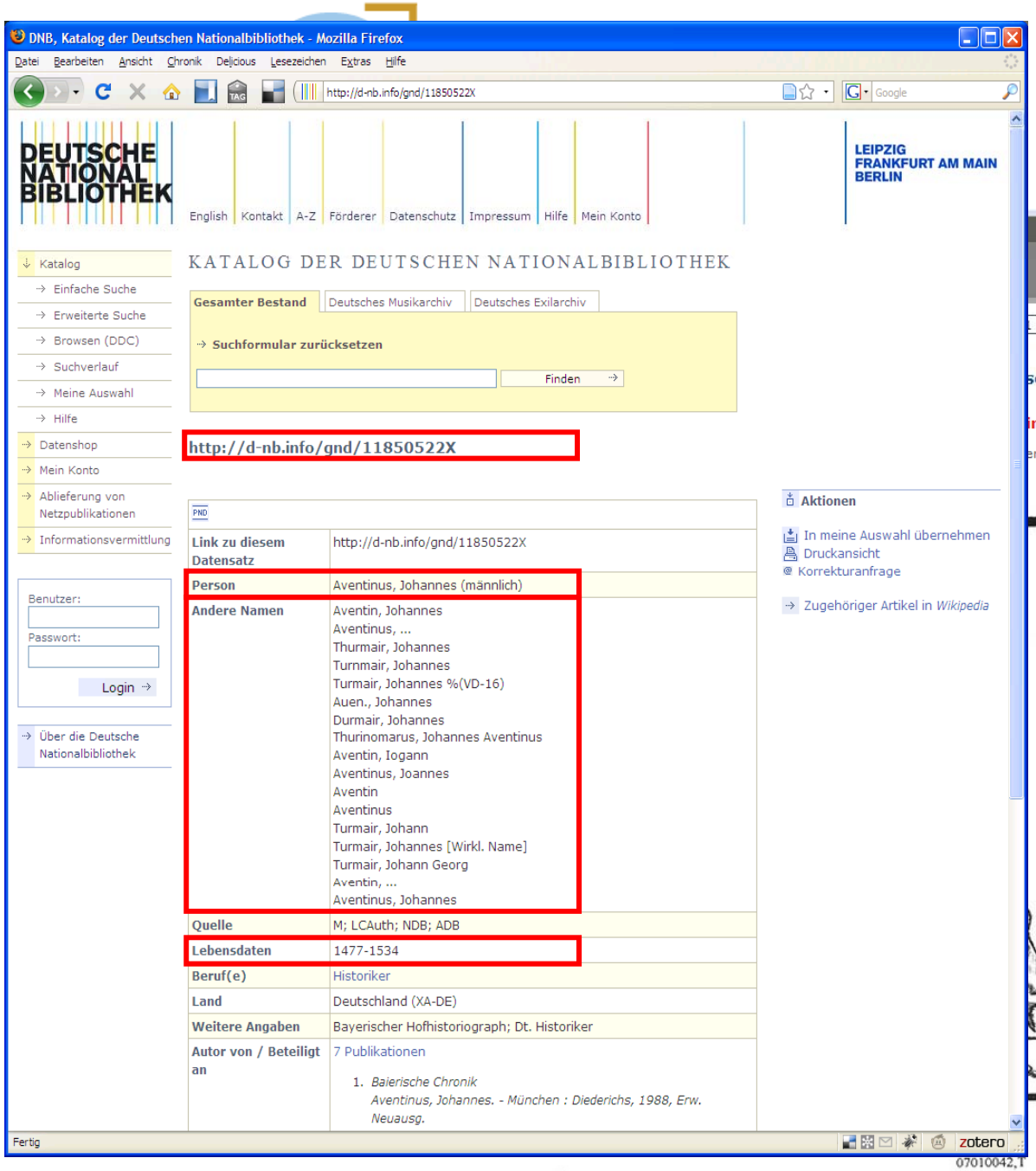


objectWorkType: **Druck**

subject
 subjectActor
  displayActor
   Johannes Aventinus
  actor
   actorID
    type **URL**
    source **GND**
    http://d-nb.info/gnd/11850522X
   nameActor
    pref **preferred**
    Aventinus, Johannes
   nameActor
    pref **alternate**
    Thurmair, Johannes
   nameActor
    pref **alternate**
    …
   vitalDatesActor **1477-1534**

Structure

Subject / Content



Lichtpult (0) | Warenkorb (0) | Hilfe | AGB

Projekte | Partner | Über uns

objectWorkType: **Druck**

subject
  subjectActor
    displayActor
      Johannes Aventinus
    actor
     actorID
        type **URL**
        source **GND**
        http://d-nb.info/gnd/11850522X
    nameActor
      pref **preferred**
     Aventinus, Johannes
    nameActor
      pref **alternate**
     Thurmair, Johannes
    nameActor
      pref **alternate**
      ...
    vitalDatesActor **1477-1534**

Structure

Subject / Content

Allows for full content description of event photographs

objectWorkType: **Photography**

title **Yalta summit in 1945 with Winston Churchill, Franklin Roosevelt and Joseph Stalin**

subject
  subjectEvent
    event
      eventType **Activity**
      eventName **Yalta conference**
      eventActor
        nameActor **Churchill, Winston**
      eventActor
        nameActor **Roosevelt, Franklin D.**
      eventActor
        nameActor **Stalin, Joseph**
      eventDate
        earliestDate **1945**
        latestDate **1945**
      eventPlace
        namePlace **Yalta**

Structure

Administrative Metadata

- Object Classifications –

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Measurements

-Events –

Event Set

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Subject Set

Related Works

-Administrative Metadata –

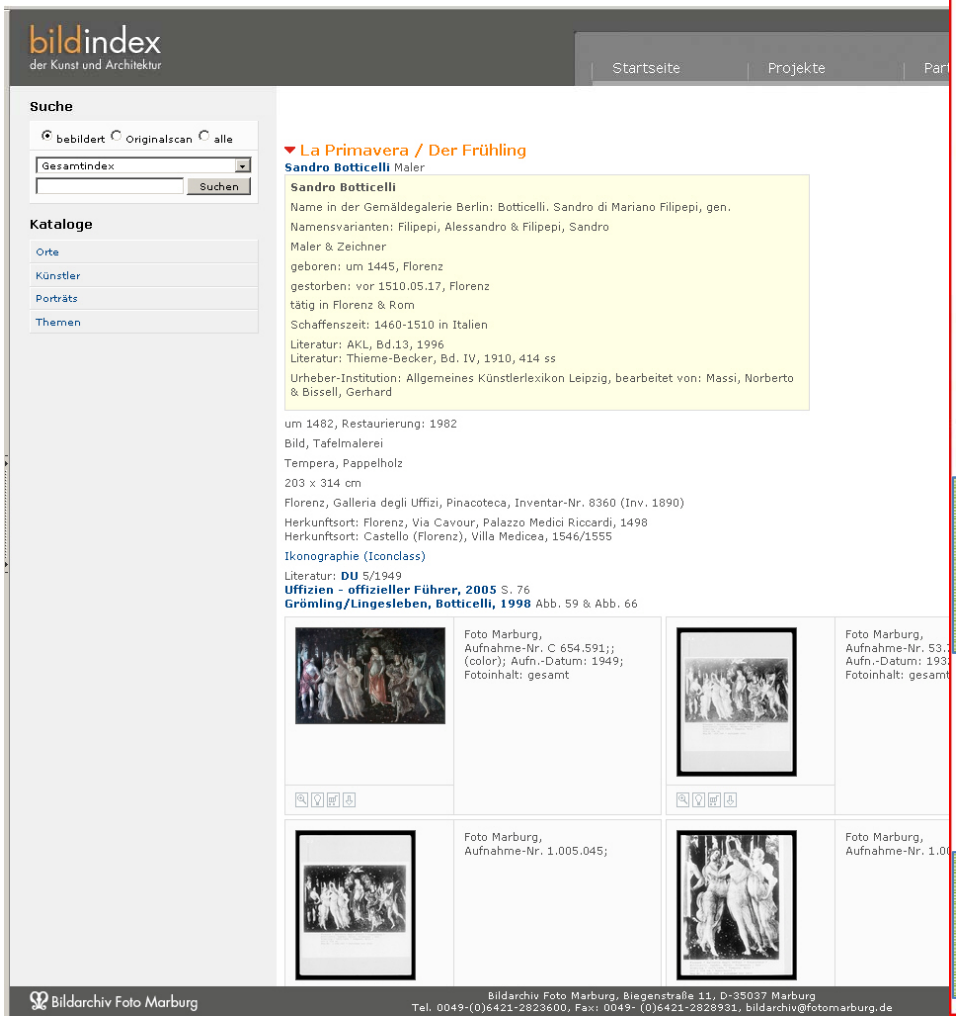
Rights

Record (*mandatory*)

Resource

Structure

Administrative Metadata



recordID: **00154983** (type: local)
recordType: **single object**
recordSource
legalBodyID: **info:isil/DE-Mb112** (type: URI) (source: ISIL (ISO 15511))
legalBodyName
appellationValue: **Deutsches Dokumentationszentrum für Kunstgeschichte - Bildarchiv Foto Marburg**
legalBodyWeblink: **http://www.fotomarburg.de**
recordRights
rightsHolder
legalBodyID: **info:isil/DE-Mb112** (type: URI) (source: ISIL (ISO 15511))
legalBodyName
appellationValue: **Deutsches Dokumentationszentrum für Kunstgeschichte - Bildarchiv Foto Marburg**
legalBodyWeblink: **http://www.fotomarburg.de**
recordInfoSet
recordInfoLink: **http://www.bildindex.de/dokumente/html/obj00154983** (formatResource: html)
recordInfoSet
recordInfoID: **oai:bildindex.de:lidoWrap::DE-Mb112/lido-obj00154983** (type: oai)
resourceSet
resourceID: **C 654.591** (type: local)
resourceRepresentation (type: image_thumb)
linkResource: **http://www.bildindex.de/bilder/t/fmc654591** (formatResource: jpg)
resourceMeasurementsSet
measurementType: **width**
measurementUnit: **pixel**
measurementValue: **120**
resourceType
term: **digital image** (addedSearchTerm: no)
resourceDescription: **overall view**
resourceDateTaken: **1949** (earliestdate: 1949) (latestdate: 1949)
resourceSource (type: holder of image)
legalBodyName
appellationValue: **Deutsches Dokumentationszentrum für Kunstgeschichte - Bildarchiv Foto Marburg**
rightsResource
rightsHolder
legalBodyID: **info:isil/DE-Mb112** (type: URI) (source: ISIL (ISO 15511))
legalBodyName
appellationValue: **Deutsches Dokumentationszentrum für Kunstgeschichte - Bildarchiv Foto Marburg**

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www.lido-schema.org