

RDF Data and Image Annotations in ResearchSpace

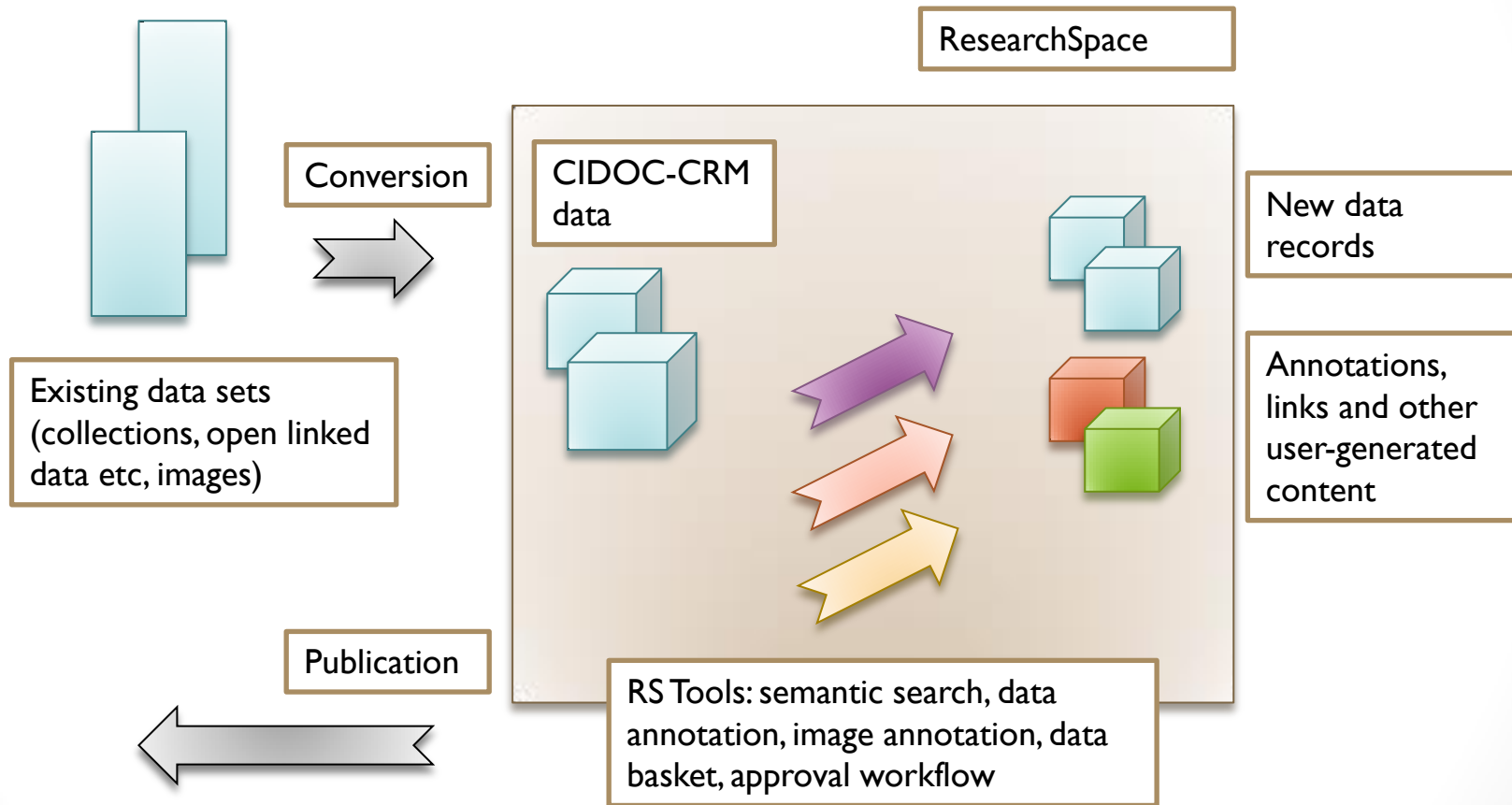
By Jana Parvanova, Vladimir Alexiev, Stanislav Kostadinov

DH-CASE 2013
Florence, Italy

The ResearchSpace Project

- Aims to provide a collaboration environment for research projects in the humanities area
- The British Museum manages the project
- Ontotext implements the application and provides semantic technology expertise; OWLIM is used as a semantic repository
- Proposed and Funded by the Andrew W. Mellon Foundation
- Part of a programme of Mellon Foundation Projects: CollectionSpace, ConservationSpace, ResearchSpace
- Stage 3 (working prototype) was developed in 2011-2012
- Stage 4 is expected to start in 2013

Data and Tools



Semantic Search

DashboardForumRRM552 Fragment of pottery jar, impressed on the....Asia and silk

Find all objects ☒ with images

made of

fibre

and

created in

Asia

SearchAdd To Data BasketExportPrint

16 Results

ListThumbnailsTimeline

Object Type

1 ceremonial equipment

3 dress

1 head-dress

1 head-veil

1 headscarf

4 veils

Creator

11 (missing this field)

4 Baluchi

1 Bedouin

Places

16 Asia

4 Baluchistan region

sorted by: Title

created in

located in

found at

from

about

date interval

identified by

keyword



[RRM186401 Embroidered veil made of cotton or linen....](#)
veil: RRM186401 Embroidered veil made of cotton or linen,...; silk; **Technique:** embroidered



[RRM186605 A woman's embroidered dress; ankle-length....](#)
dress: RRM186605 A woman's embroidered dress; ankle-length,...; **Created:** Syria, 1900-1974 ;; **Material:** cotton; silk; **Technique:** plain weave; cross stitch



[RRM186608 Woman's head veil, made of cotton or linen....](#)
head-veil: RRM186608 Woman's head veil, made of cotton or linen,...; **Created:** Palestine, 1900-1935 ;; **Material:** cotton; linen; silk; **Technique:** embroidered

Data Annotation

As1979,01.53 (BM Registration Number)

(Nuxeo UID : BM-RRM186876)

Current owner

The British Museum

Current keeper

The British Museum

BM Department Middle East

Former or current owner

University of Cambridge

Former or current keeper

University of Cambridge

Object type

dress

Material

silk

silver

Production & Techniques

used general technique embroidered

took place at Aleppo (Made)

Dimensions

Length : 115.00 cm

Width : 130.00 cm (across arms)

Annotations

Filter ▼

Sort ▼

Go to data field

Add annotation

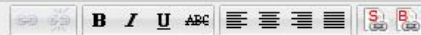
New Annotation

Title: dress RRM186876 - silk

Referred
value:

silk

Suggested
value:



After the fall of the Byzantine empire, the silk industry began to decline in Syria. The industry saw a huge international expansion, which caused the demand and the prices of silk to decrease drastically, no longer making it a profitable venture. This decline was again furthered by the introduction of the mechanical loom into the textile industry.

 silk production 

Syria, North East x

Add topic...

Add

Save

Cancel

[View all images](#)

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Go to data field

Filter

Sort

Add annotation

dress RRM186876 - silk

Referred value: silk



2013-09-12 11:54 AM, Administrator

After the fall of the Byzantine empire, the silk industry began to decline in Syria. The industry saw a huge international expansion, which caused the demand and the prices of silk to decrease drastically, no longer making it a profitable venture. This decline was again furthered by the introduction of the mechanical loom into the textile industry.

silk production

Syria, North East

2013-09-12 11:57 AM, Administrator

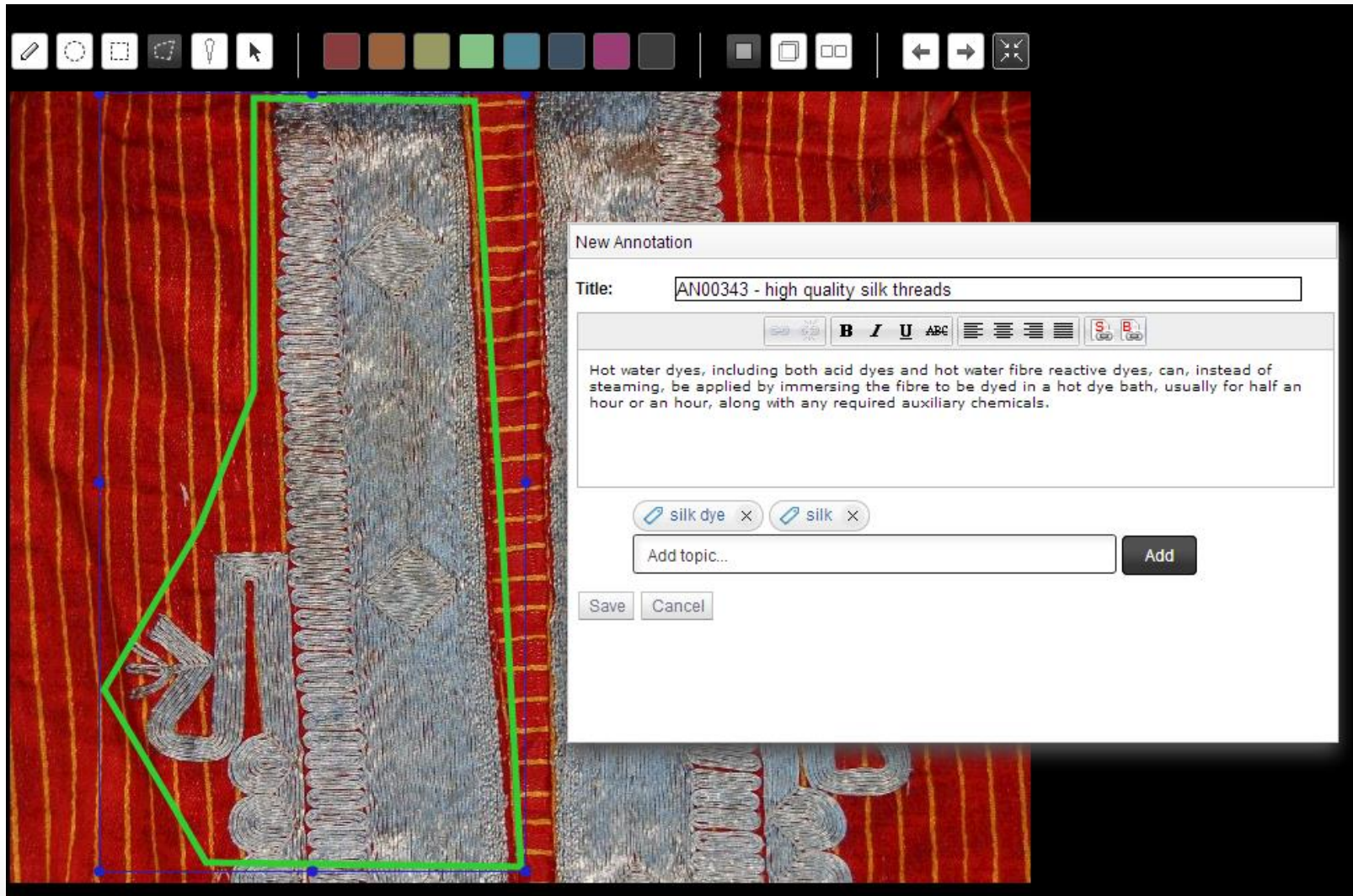
Same traditional patterns may be observed here: RRM186883
Woman's scarf (embroidered, with Arabic inscription)...

Object: RRM186883 Woman's scarf (embroidered, with Arabic inscription)...



[View all images](#)

Image Annotation



The screenshot displays an image annotation software interface. The main workspace shows a textile image with a red background and a central blue-grey patterned band. A green polygonal annotation is drawn over the left side of the image. A toolbar at the top contains various tools for drawing and editing, including a pencil, eraser, selection tools, and a color palette. A 'New Annotation' dialog box is open on the right side of the image.

New Annotation

Title:

B I U ABC **S B**

Hot water dyes, including both acid dyes and hot water fibre reactive dyes, can, instead of steaming, be applied by immersing the fibre to be dyed in a hot dye bath, usually for half an hour or an hour, along with any required auxiliary chemicals.

Image Annotation

ResearchSpace

search

Dashboard

Forum

RRM186876 Woman's dress (embroidered) made of cloth...

AN00343

Image details

Annotations

Relations



Overlay

Annotations

All Only This Level None

Filter

Sort

Add annotation

AN00343 - embroidery

2013-09-12 12:08 PM, Administrator

Traditional embroidery was typically produced by village and Bedouin women rather than town dwellers, who have usually worn Western or Ottoman attire. This fact probably explains why most of the research done to date on costumes and embroidered art has focused mainly on the rituals and social ceremonies in rural and Bedouin areas.

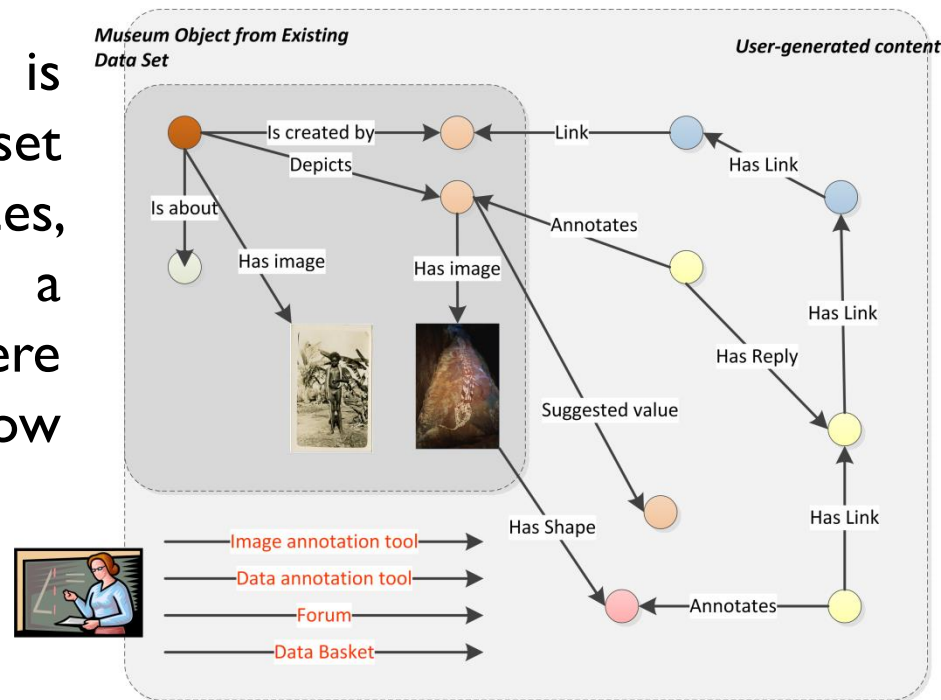
AN00343 - high quality silk threads

2013-09-12 12:06 PM, Administrator

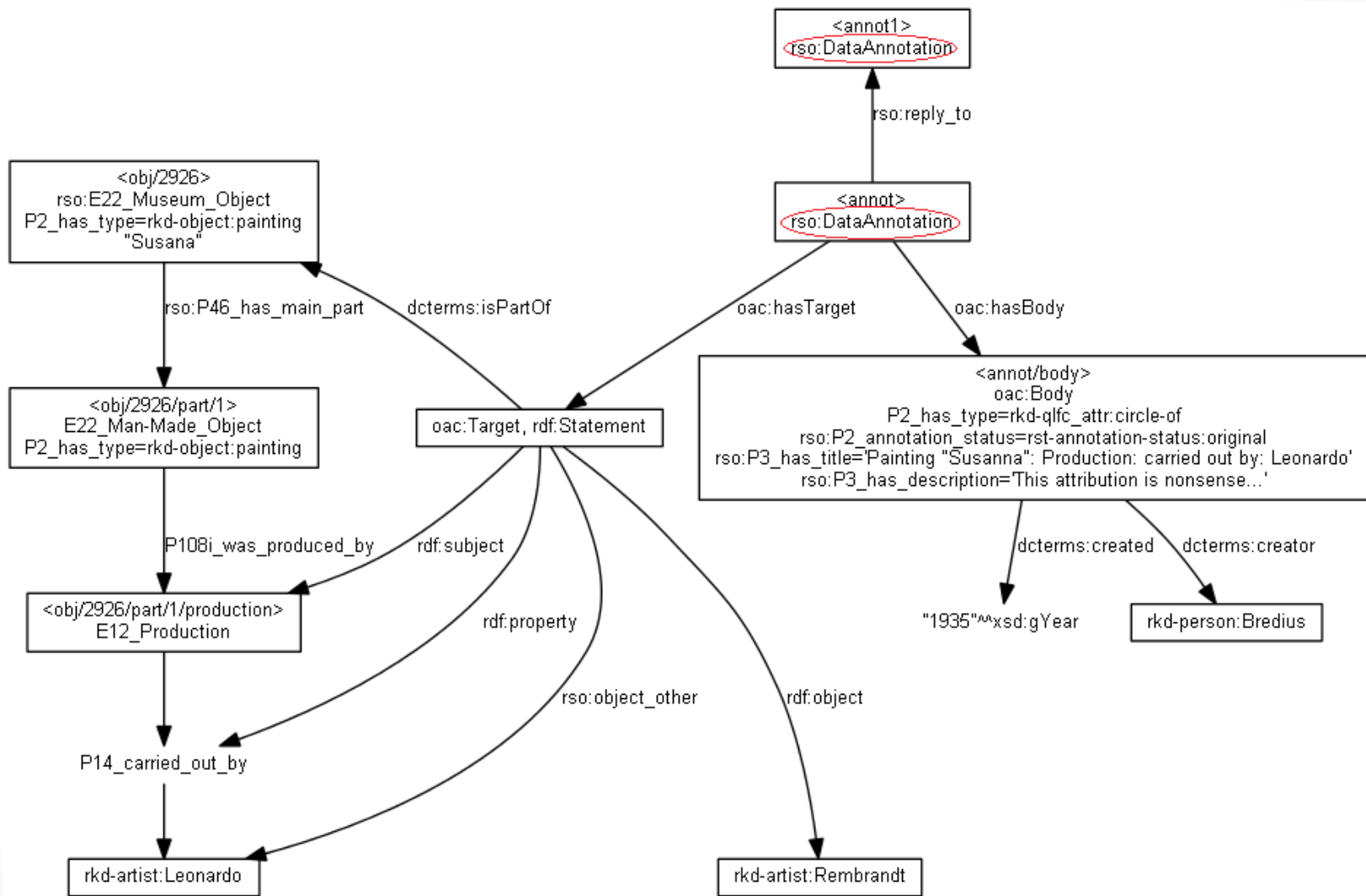
Hot water dyes, including both acid dyes and hot water fibre reactive dyes, can, instead of steaming, be applied by immersing the fibre to be dyed in a hot dye bath, usually for half an hour or an hour, along with any required auxiliary chemicals.

Implementation: Data models

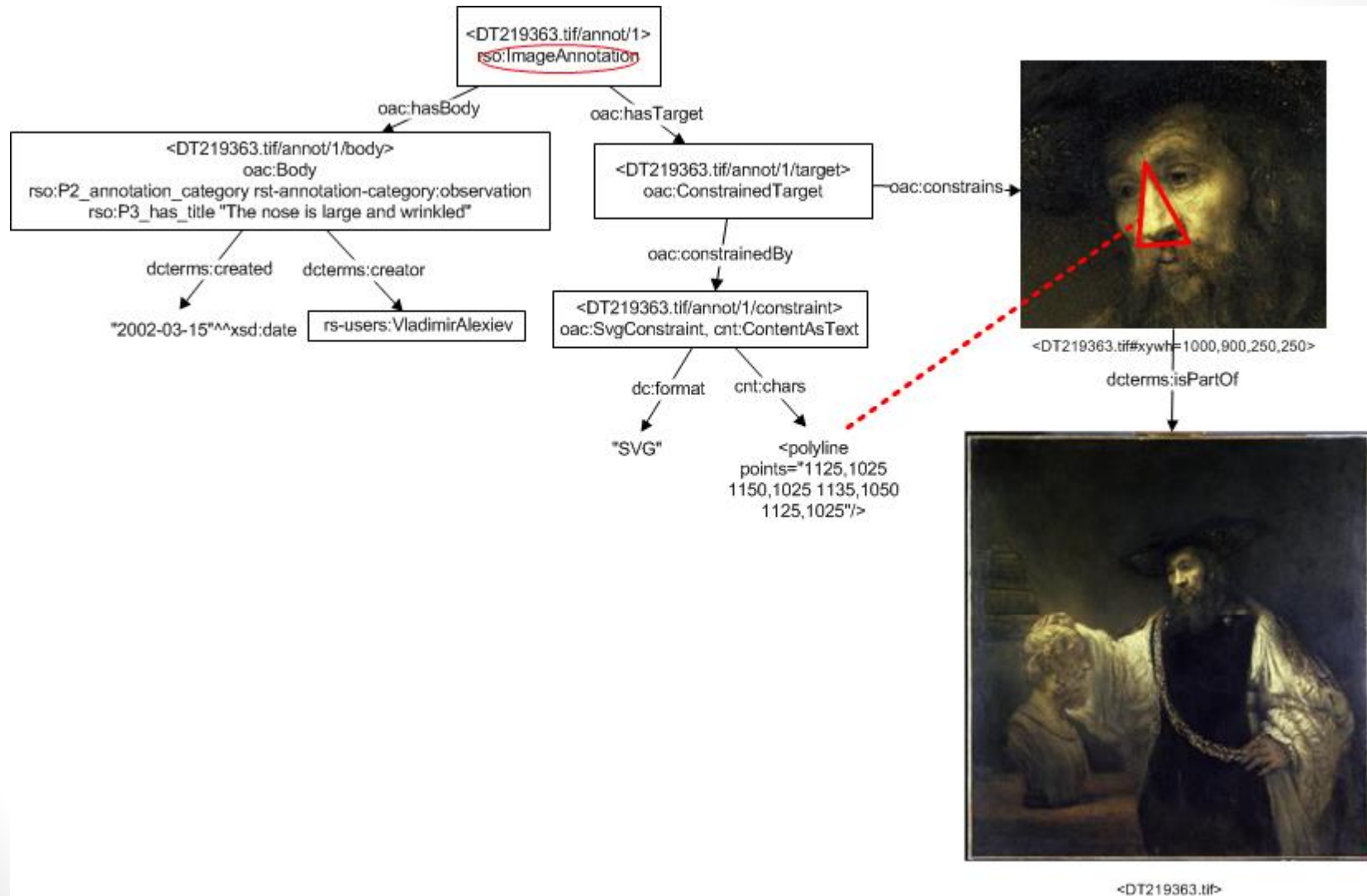
- CIDOC-CRM: provides definitions and a formal structure for describing the implicit and explicit concepts and relationships used in cultural heritage documentation.
- OAC: An Annotation is considered to be a set of connected resources, typically including a body and target, where the body is somehow about the target.
- SKOS



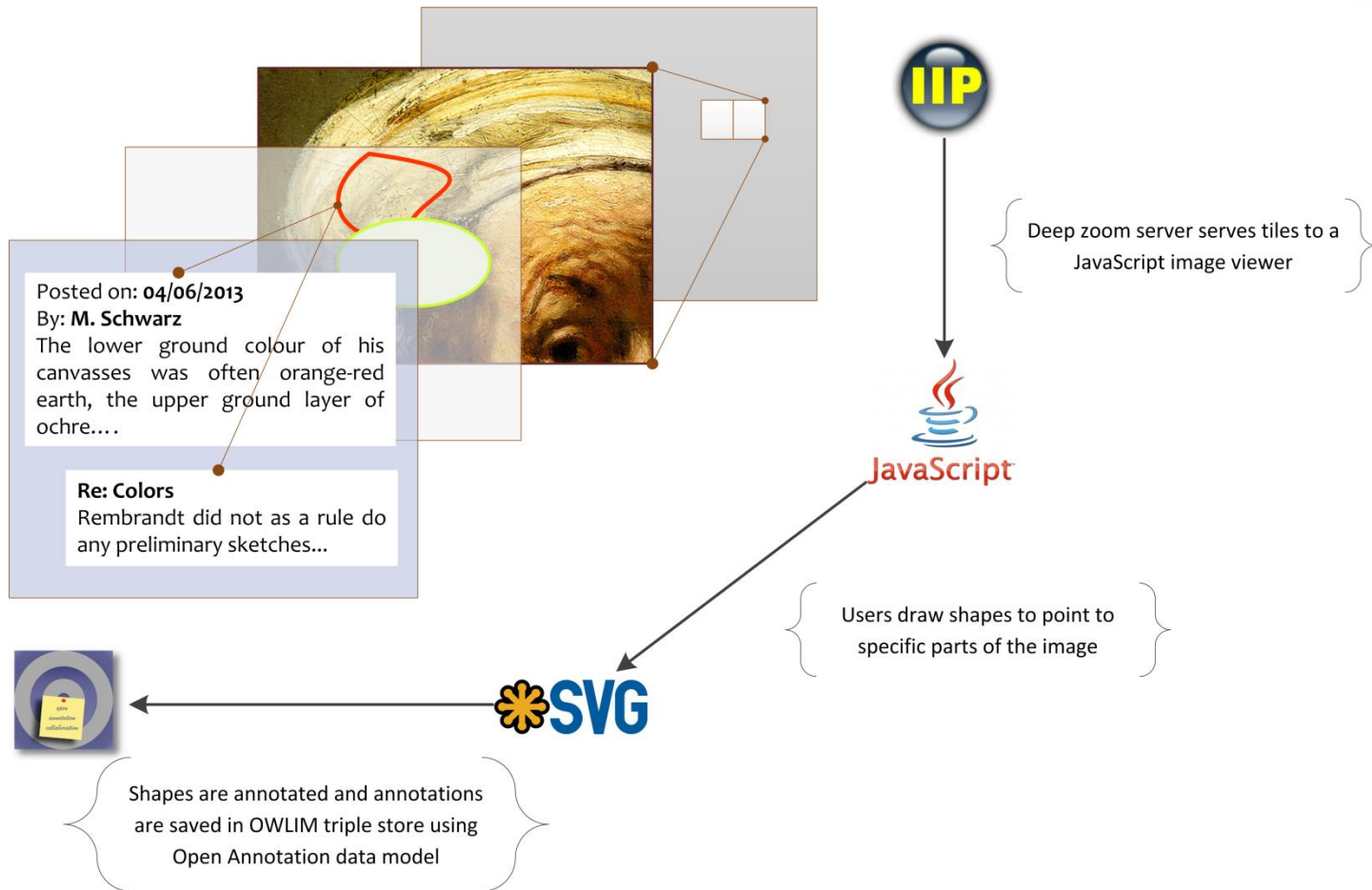
Implementation: Example



Implementation: Example



Implementation - Images



Some Numbers

- Museum objects: 2,051,797
- Thesaurus entries: 415,509 (a total of 90 ConceptSchemes)
- Explicit statements: 195,208,156. We estimate that of these, 185M are for objects (90 statements per object) and 9M are for thesaurus entries (22 statements per term).
- Total statements: 916,735,486. The expansion ratio is **4.7x** (i.e. for each statement, 3.7 more are inferred). This is considerably higher compared to the typical expansion for general datasets (e.g. DBpedia, GeoNames, FactForge) that is 1.2 - 2x.
- Nodes: 53,803,189. Includes unique URLs and literals (this dataset doesn't use blank nodes)
- Repository size: 42 Gb, object full-text index: 2.5 Gb, thesaurus full-text index (used for search auto-complete): 22Mb.

Wrap-up

- Future plans
- Questions?
- Contacts: jana.parvanova@ontotext.com,
vladimir.alexiev@ontotext.com
- Links:
 - <http://www.researchspace.org/>
 - [The British Museum, CIDOC CRM and the Shaping of Knowledge](#)
- by Dominic Oldman, principal investigator
 - [Implementing CIDOC CRM Search Based on Fundamental Relations and OVLIM Rules](#) – by Vladimir Alexiev
 - [ResearchSpace CIDOC CRM Search System](#) – screencast on YouTube
- Thank you!