

Adding Voices to Quire with Linked Art

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Linked Art

Linked Art is a usable, standards-based way to describe cultural heritage, providing museums with a shared data model

Linked Art is

- an activity-centric metadata profile based on the CIDOC CRM
- informed by lessons from past Linked Open Data initiatives
- an API with recurrent principles, providing JSON-LD
- easily understood by developers - Linked Open Usable Data



<https://linked.art/>

Quire

Quire is an open-source software project developed by Getty for authoring rich exhibition-centric digital outputs which are easy to write, build, deploy and maintain, including by smaller institutions and individuals

- Quire projects are written as text (Markdown), images, and metadata (YAML)
- The Quire tool turns these into simple and easy-to-maintain websites, PDFs, and/or ebooks

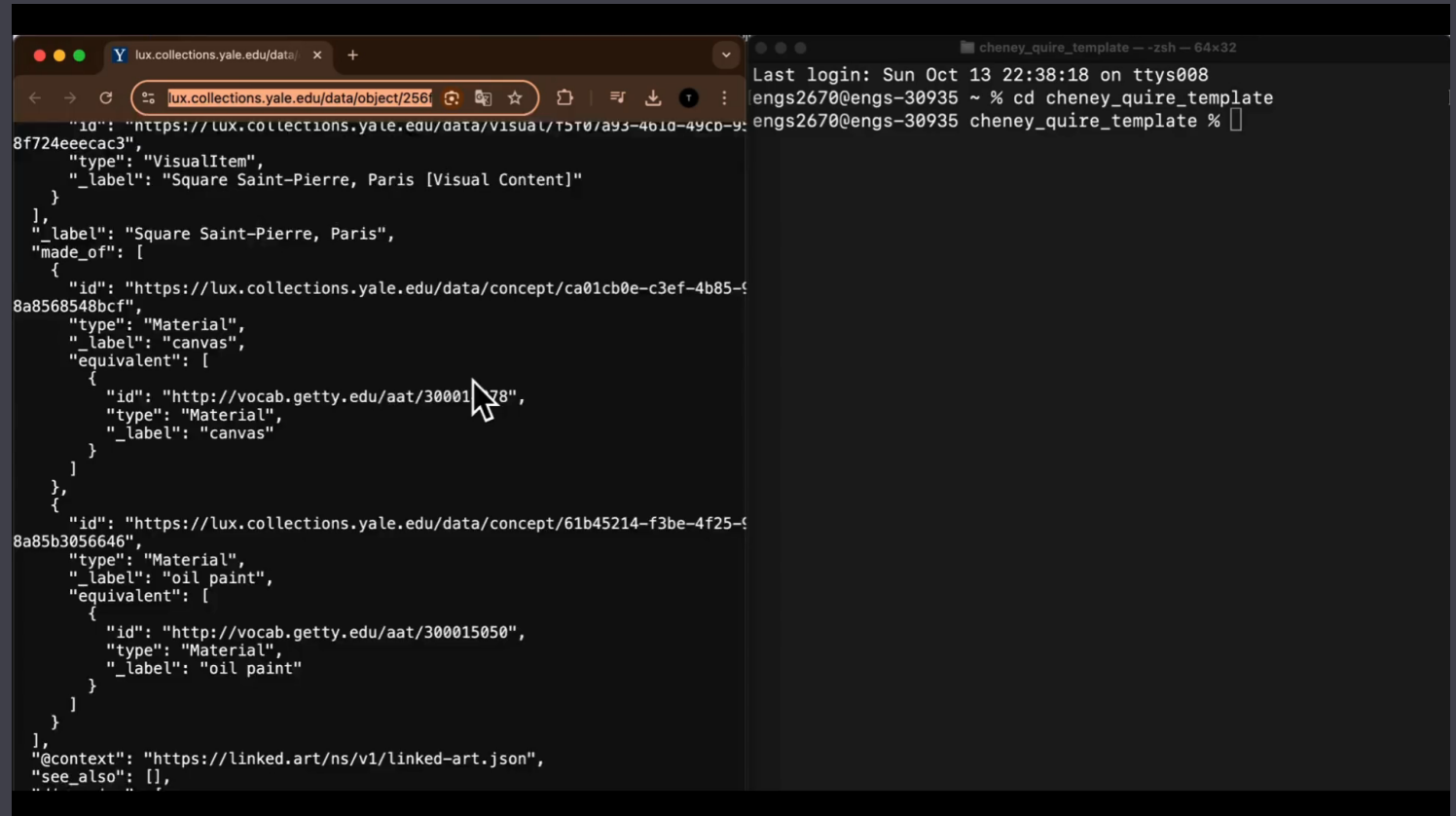


<https://quire.getty.edu/>

A Linked Art extension for Quire

Given a Linked Art URI, the extension

- Retrieves Linked Art JSON-LD and creates YAML object records, as used by Quire
- Respects existing Quire object IDs alongside imported existing IDs (e.g. accession numbers)
- Fetches images for use in Quire via IIIF from the Linked Art
- Can process multiple URIs, or activity resources containing multiple objects (e.g. exhibitions)
- Allows configuration of field selection, ordering, and (re-)naming
- Saves a ton of work!



The screenshot displays two windows. The left window is a web browser showing a JSON-LD document from `lux.collections.yale.edu/data/object/256`. The JSON data includes a `VisualItem` type with a label "Square Saint-Pierre, Paris [Visual Content]" and a `made_of` array of materials. The materials include a canvas (linked to `http://vocab.getty.edu/aat/3000178`) and oil paint (linked to `http://vocab.getty.edu/aat/300015050`). The right window is a terminal showing the command `cd cheney_quire_template` and the output of a command, indicating the last login was on Sun Oct 13 22:38:18 on ttys008.

```
lux.collections.yale.edu/data/object/256
{
  "id": "https://lux.collections.yale.edu/data/visual/1570/ays-4b1d-49cd-9:8f724eeecac3",
  "type": "VisualItem",
  "_label": "Square Saint-Pierre, Paris [Visual Content]"
},
{
  "label": "Square Saint-Pierre, Paris",
  "made_of": [
    {
      "id": "https://lux.collections.yale.edu/data/concept/ca01cb0e-c3ef-4b85-f8a8568548bcf",
      "type": "Material",
      "_label": "canvas",
      "equivalent": [
        {
          "id": "http://vocab.getty.edu/aat/3000178",
          "type": "Material",
          "_label": "canvas"
        }
      ]
    },
    {
      "id": "https://lux.collections.yale.edu/data/concept/61b45214-f3be-4f25-f8a85b3056646",
      "type": "Material",
      "_label": "oil paint",
      "equivalent": [
        {
          "id": "http://vocab.getty.edu/aat/300015050",
          "type": "Material",
          "_label": "oil paint"
        }
      ]
    }
  ]
},
{
  "@context": "https://linked.art/ns/v1/linked-art.json",
  "see_also": [

```

Labyrinth: Knossos, Myth & Reality

Exhibition ran February-July 2023

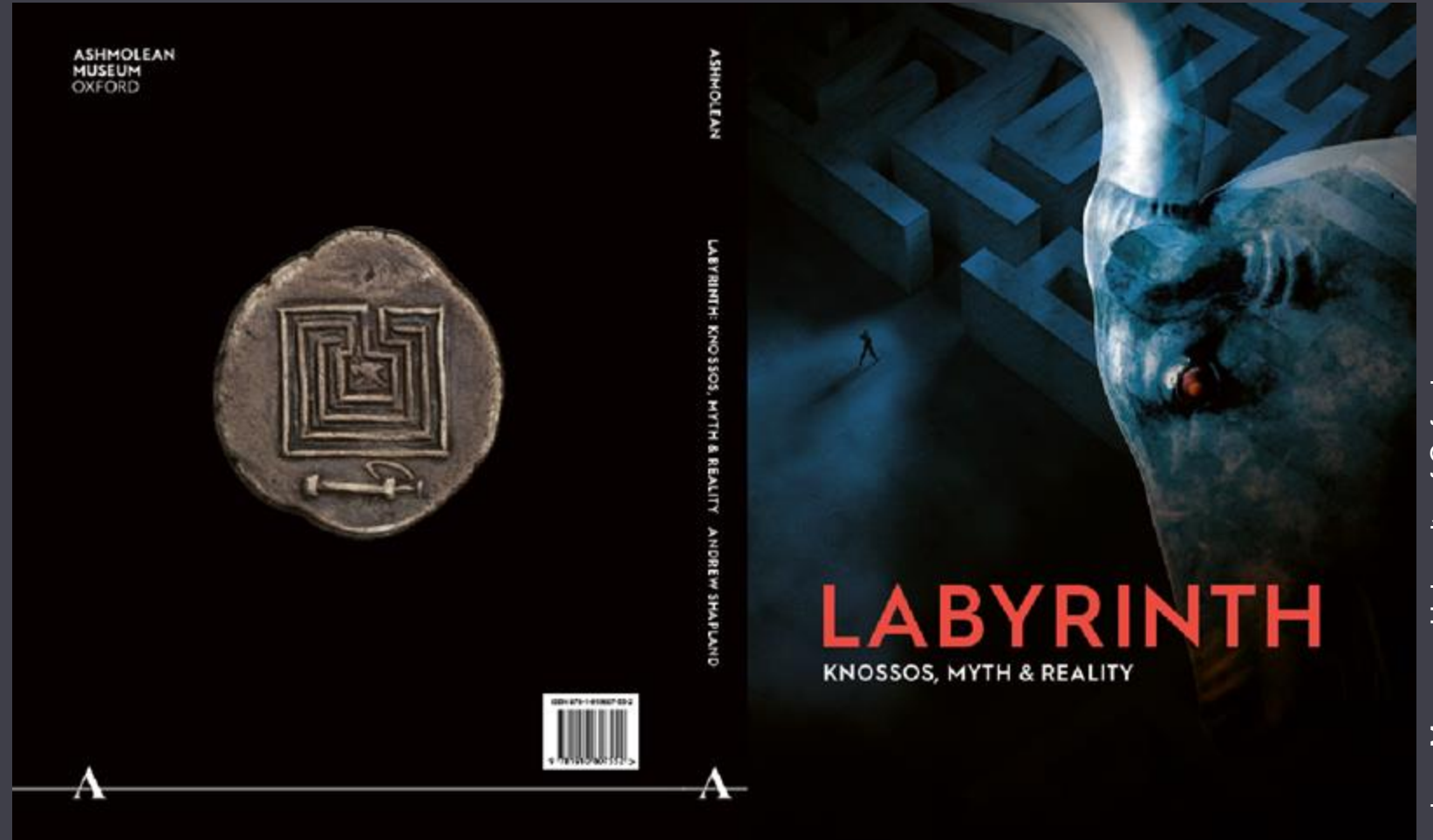
- 62k visitors
- 238 objects exhibited, of which 100 from Ashmolean collection (27 of which on permanent display)



Recycling content

The exhibition generated lots of content which can be reused

- Catalogue



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- Exhibition panels & labels



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- Website



Recycling content

The exhibition generated lots of content which can be reused

- Catalogue
- Exhibition panels & labels
- Website
- Enriched collection records

The screenshot displays the Ashmolean Museum Oxford website interface. On the left, a search bar contains the text "myths of crete". Below the search bar, a list of search results is shown, including "AN1896-1908.AE.2400 Replica bull's head rhyton" and "AN1896-1908.G.261 Attic red-figure cup depicting Theseus and the Minotaur". The main content area shows the details for the selected object, AN1896-1908.G.261. The object is an Attic red-figure cup depicting Theseus and the Minotaur. The details include the object title, date/period (circa 500 BC), object name (cup type B), persons (attributed to Apollodoros, artist), and geographical references (find spot: Chiusi, place of creation: Attica). The object is made of ceramic and is currently in the Ash/New/0F/Aegean World/S101 collection. The details section also includes information about the object's dimensions (h 8.1 cm, dia: rim 20 cm, w 26.7 cm, rim thickness 0.3 cm), material (pottery), technique (painted), and ware (red-figure).

Search (13 found)

Search: "myths of crete"

Domain Filter: [v]

Sorting: [v]

Advanced search History

AN1896-1908.AE.2400
Replica bull's head rhyton

AN1896-1908.G.261
Attic red-figure cup depicting Theseus and the Minotaur - preferred (descriptive)

AN1911.256
Attic black-figure pottery amphora

AN1924.63
Bee-smoker, also known as 'Ariadne's

AN1937.983
Attic red-figure calyx-crater showing the

AN1938.1129
Gold signet ring with design of male and

AN1971.822
Gilded bronze mirror depicting Europa and

GB/1648/AJE/4/1/11/...

Objects (13 found)

Object Numbers: AN1896-1908.G.261 (accession number) Online Status: **yes: bronze**

Record Type: ceramic

Object Title: Attic red-figure cup depicting Theseus and the Minotaur - preferred (descriptive)

Date / Period: circa 500 BC (date of creation) Object Name: cup type B

Persons: attributed to Apollodoros, artist

Geogr. ref.: find spot: Chiusi place of creation: Attica

Basic data Location Acquisition Further Texts Preservation Condition Iconography References

Current loc. **Ash/New/0F/Aegean World/S101**

Normal loc. [v]

Mat. / Tech.: Display: pottery, with painted decoration

Material: pottery

Technique: painted

Ware: red-figure

No. of objects: 1

Dimensions: h 8.1 cm

dia: rim 20 cm

w 26.7 cm

rim thickness 0.3 cm

State: [v]

Edition Size: [v]

Inscriptions and marks: [v]

Recycling content - Educational Resources

The exhibition generated lots of content which can be reused

- Catalogue
- Exhibition panels & labels
- Website
- Enriched collection records

This content is most relevant to the permanent Aegean World gallery - existing learning resources show there is interest in object-focussed teaching in gallery

Focus on The Palace at Knossos and Crete

ASHMOLEAN

Notes for teachers

Objects from Knossos and Crete at the Ashmolean

- Most of the objects linked to Crete and The Palace at Knossos are on display in Gallery 20: Aegean World.
- Displays cover finds from the excavations of Arthur Evans from the early 1900s of the Palace at Knossos, and also explore his interpretation of the site.
- Other displays include Mycenaean objects and ancient objects from the Cyclades, including carved Cycladic figures from cist graves.
- The gallery can also be used to explore objects related to Crete's most famous myths: Theseus and the Minotaur.

Other galleries containing ancient Greek objects:

Gallery 16: The Greek World
Gallery 18: Ancient Cyprus
Gallery 14: Cast Gallery
Gallery 7: Money
Gallery 21: Greek and Roman Sculpture

Gallery 20: Aegean World

1. Attic red-figure pottery cup attributed to the Apollodoros Painter, Chios, Italy c500 BC.



The illustration shows Crete's most famous myth. Confined by King Minos in the labyrinth, the Minotaur, half-man, half-bull, survived by devouring youths and maidens sent as tribute from Athens until it was finally slain by Theseus.

AN1000.1008.0.261

Gallery 20: Aegean World

2. Octopus jar, 1450-1400 BC.



This partially restored jar is from the Palace at Knossos, Crete. It is decorated with a six-tentacled octopus, using purple red dye from murex shells, a popular colourant for murals across the east Mediterranean. The design reflects a society with a close relationship to the sea.

SEA_ASH101.008


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Lines of enquiry: Classics

- Palaces, with special emphasis on the Palace at Knossos: their function and use
- Tombs and and burial practices
- Materials and technology: frescoes, pottery, jewellery, metalwork
- Building and engineering: waterworks, palaces, building materials
- Minoan culture and its significance for trade
- Economy and society: Linear B tablets, content, discovery, interpretation and significance
- Early Cretan hieroglyph and Linear A
- The myth of Theseus and the Minotaur
- Excavation and archaeological methods: compare and contrast with approaches today
- Explore the styles of pottery from different palace 'phases' from the Palace at Knossos. Learn about how they were used to date excavations.

Working with objects: key questions

- Who made it?
- Where and when was it made?
- What materials is it made from?
- How was it made?
- What was it used for? How was it used?
- Who used / owned it?
- How might it be interpreted by different people? at different times?



Chest (shaped) from (left) cemetery at Knossos, 1175-1000 BC.

AN1000.1008.0.161

Lines of enquiry: Art & Design

- Explore different design motifs from ancient Cretan pottery and create new designs to reflect Minoan culture.
- Research how myth and legend have been represented in art across different times and cultures through objects and artworks.

Further resources

Further information about Arthur Evans and the Palace at Knossos is available at:

www.ashmolean.org/collections/evansknossos.htm

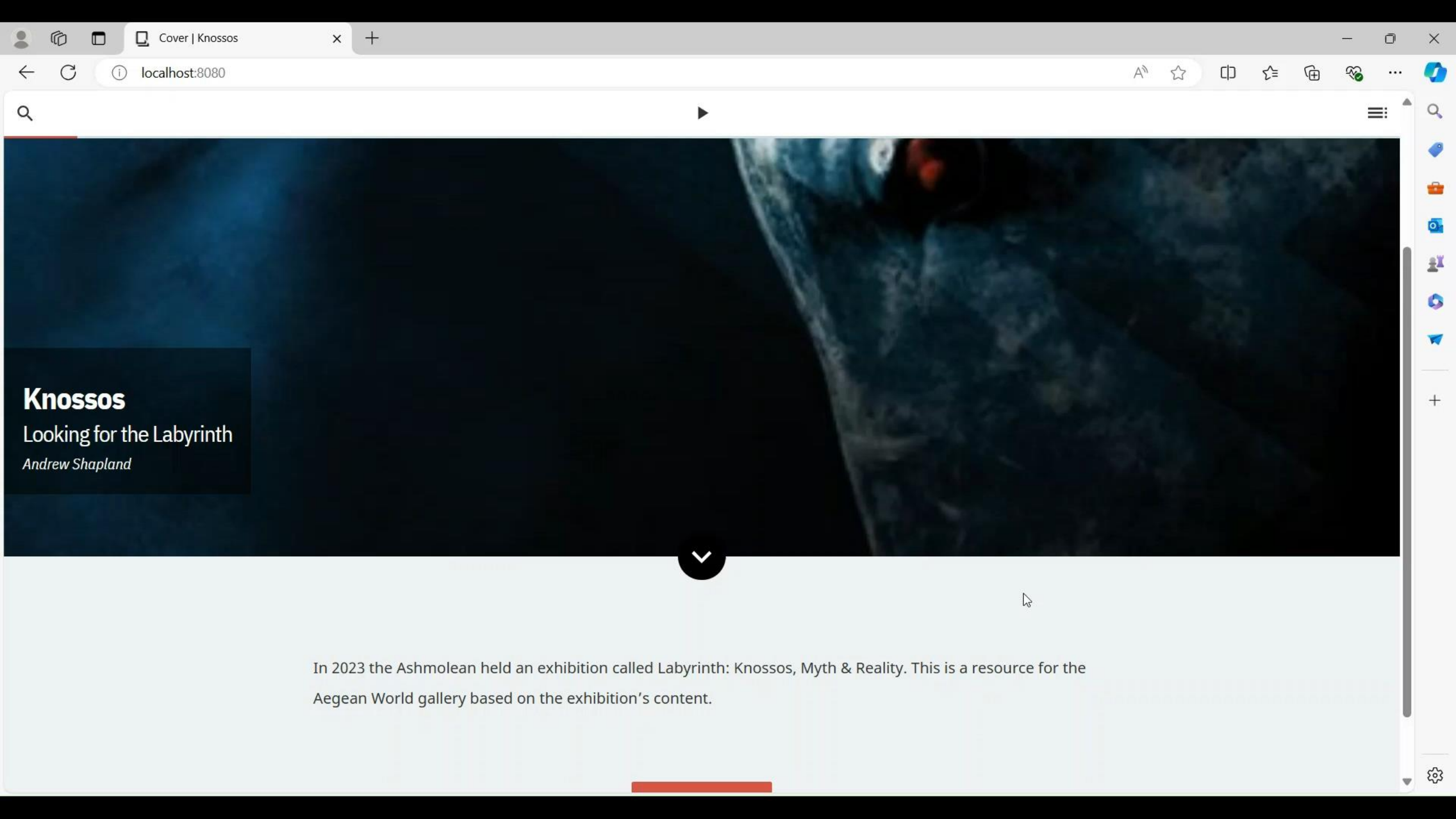
[www.ashmolean.org/collections/](http://www.ashmolean.org/collections/evansknossos.htm)

Cross curricular links

- History: rise and expansion of the Minoan culture and its influence in the Mediterranean
- English: explore myths and legends
- Maths: currency and coinage in the ancient world

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Knossos

Looking for the Labyrinth

Andrew Shapland



In 2023 the Ashmolean held an exhibition called Labyrinth: Knossos, Myth & Reality. This is a resource for the Aegean World gallery based on the exhibition's content.

School outreach activities

Cheney School is a comprehensive secondary in East Oxford. Working with the school and our colleagues at the Ashmolean, the aims of our partnership were

- To introduce elements of documentation, cataloguing, and computing into museum outreach
- To engage computing students with aspects of culture & history, and vice versa
- To overcome perceived barriers of access to museums and museum-related careers
- To situate the value of the school's Rumble Museum as equal (or greater!) to the Ashmolean
- To demonstrate a variety of information organisation tools and techniques as the foundation for critical evaluation when used to encode and share (cultural) information
- For the class to collectively create a Quire book documenting their observations and interpretations of museum objects, which the school could publish



School activity 1: Ashmolean school visit

24 students split into two groups of 12, working in pairs

Handling session

- Introducing curation
- Observations made in a structured record sheet
- Draw their own sketches and take photos



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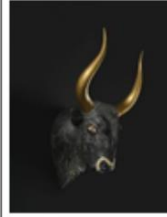

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- Introducing curation
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Aegean World Gallery visit

- Make connections with Rumble Museum collections
- Explore approaches to gallery documentation
- Gallery hunt, recording observations using the same format records as for handling
- Also asked to record personal reflections in a video

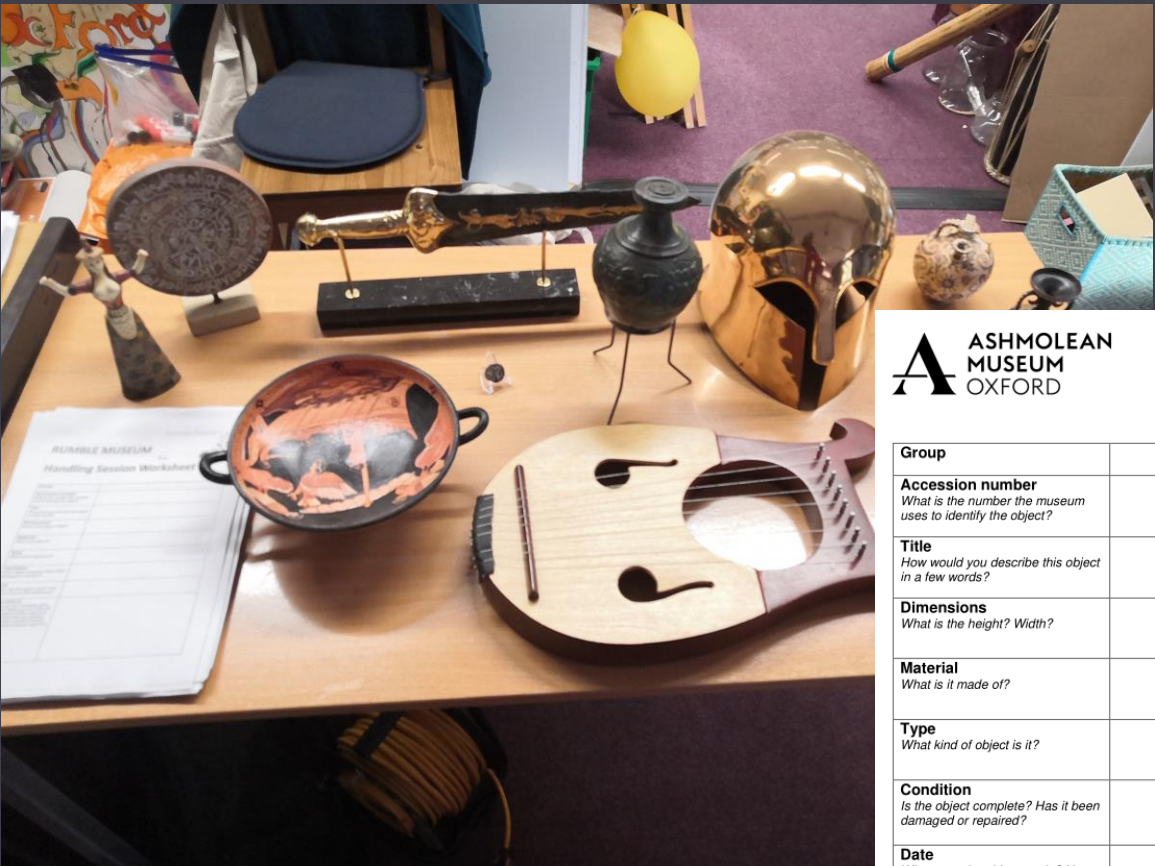


ASHMOLEAN MUSEUM OF ART AND ARCHAEOLOGY UNIVERSITY OF OXFORD			
	<p>Find out what these objects are.</p> <p>How would you describe them? How might they have been used?</p> <p>What might these objects tell us about Minoan women and their place in society?</p>		
	<p>This is an example of fresco - wall painting onto wet plaster.</p> <p>What do you notice?</p> <p>What questions does it prompt?</p> <p>What impressions does this painting give of the palace's decoration and status?</p>		<p>Look closely at this seal ring. What do you think it is depicting?</p> <p>What material is it made from?</p> <p>What evidence does this object give us about the Minoan culture?</p>
	<p>Find this Replica bull's head rhyton.</p> <p>Why is this object so important?</p> <p>What value do replica objects have in a museum?</p>		<p>What do you think this jar might have been used for?</p> <p>What does the design remind you of?</p> <p>If you had to choose another object to display alongside this one, what would it be and why?</p>

School activity 2: School Rumble Museum class

Learning objectives

- Apply the museum observation and handling skills learnt at the Ashmolean Museum to the Rumble Museum handling session
- Contribute to an extended and enriched Rumble catalogue
- Articulate a narrative story based on the museum objects, reflecting their own thoughts and experiences
- Use formatting within a document to more effectively convey their story
- Identify cultural (or other contextual) connections between objects from different museums, and the role museums play in formulating these connections



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OXFORD**



Group	
Accession number <i>What is the number the museum uses to identify the object?</i>	
Title <i>How would you describe this object in a few words?</i>	
Dimensions <i>What is the height? Width?</i>	
Material <i>What is it made of?</i>	
Type <i>What kind of object is it?</i>	
Condition <i>Is the object complete? Has it been damaged or repaired?</i>	
Date <i>When was the object made? How can you find out this information?</i>	
Observations <i>What do you find interesting about the object? What was it for? Why did someone make it? Who might have owned it? Does it tell you anything about the owner's wealth or status? Is it like any object that you might find at home?</i>	

School activity 3: History & Computing class

Each pair of students were asked to

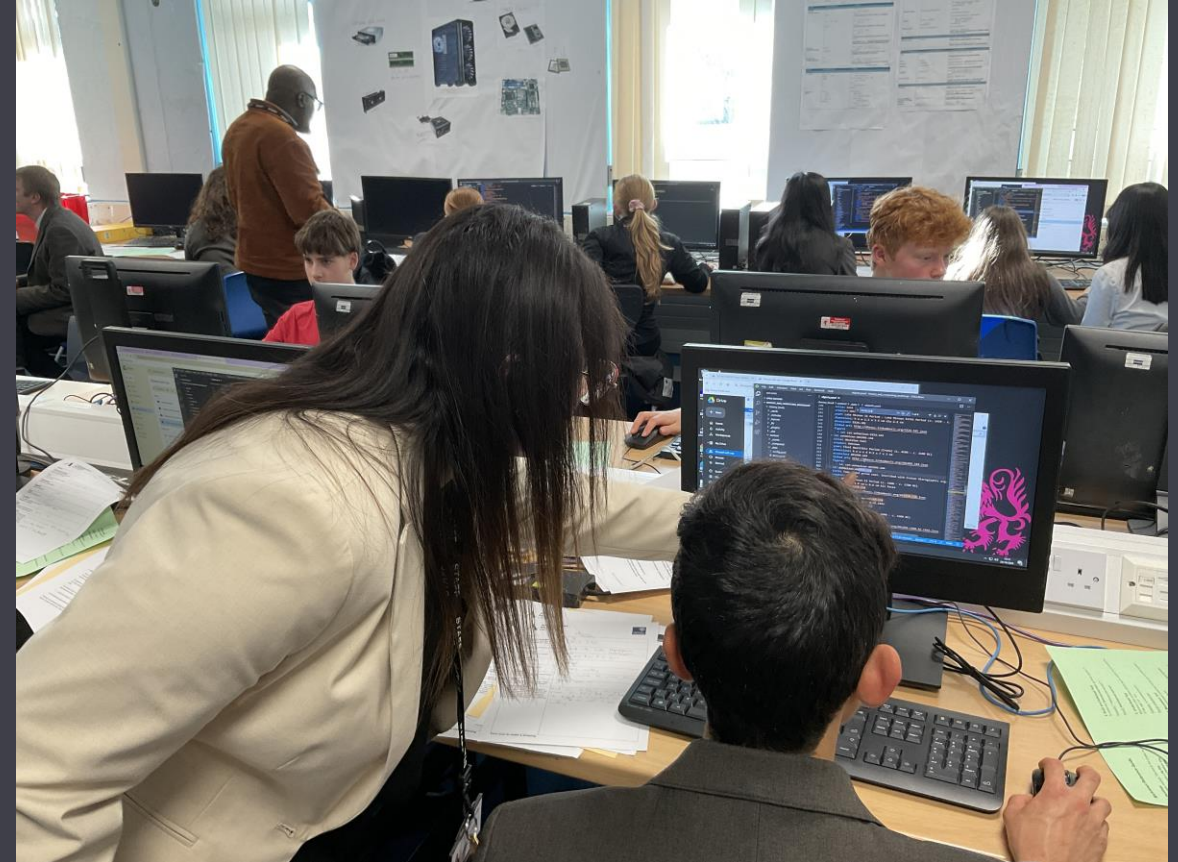
- **Supplement Quire object YAML with observations from their handling sessions**
 - Learnt about the relative strengths of JSON-LD and YAML, and the information impacts of conversion between them
 - Contextualising YAML with key-value pairs and Python dictionaries (curriculum content)



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- **Mark-up their interpretations about their object as a Markdown page for the book**
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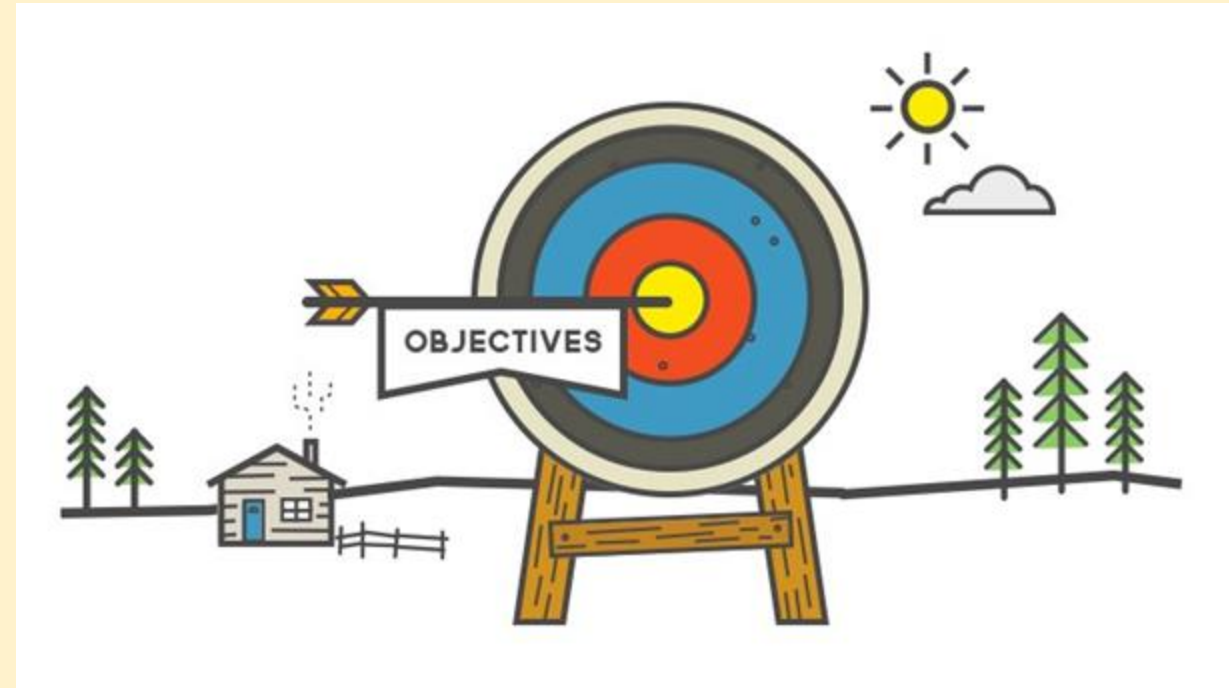
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- **Mark-up their interpretations about their object as a Markdown page for the book**
 - Contextualising Markdown with HTML (curriculum content)
- **Use identifiers to add their YAML object data to their Markdown story**
- **Hyperlink their own object photos into their story**
 - Creating new figure YAML and identifiers as part of this task



History and Computing workshop

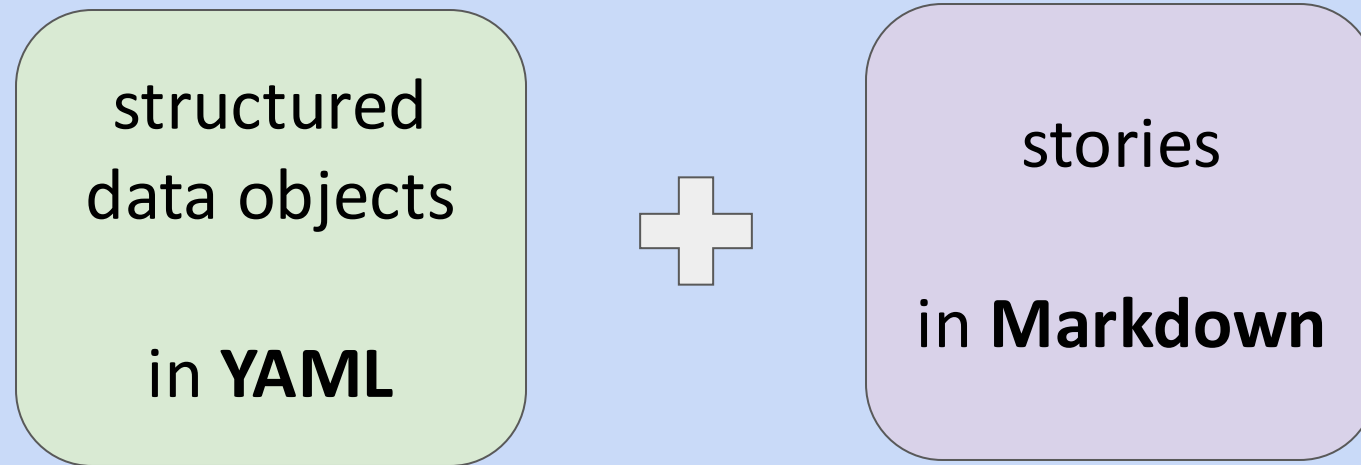
Lesson objectives - to be able to:

1. record observations as **structured data** in a digital catalogue
2. edit catalogue mark-up templates to reflect objects studied
3. encode personal stories about museum objects as **text with presentational mark-up**
4. use Quire to include catalogue data and marked-up text within a digital book
5. explain how marked-up text and catalogue data enable Quire to automate book creation



Combining information using Quire

Quire uses two types of information processing to build our book

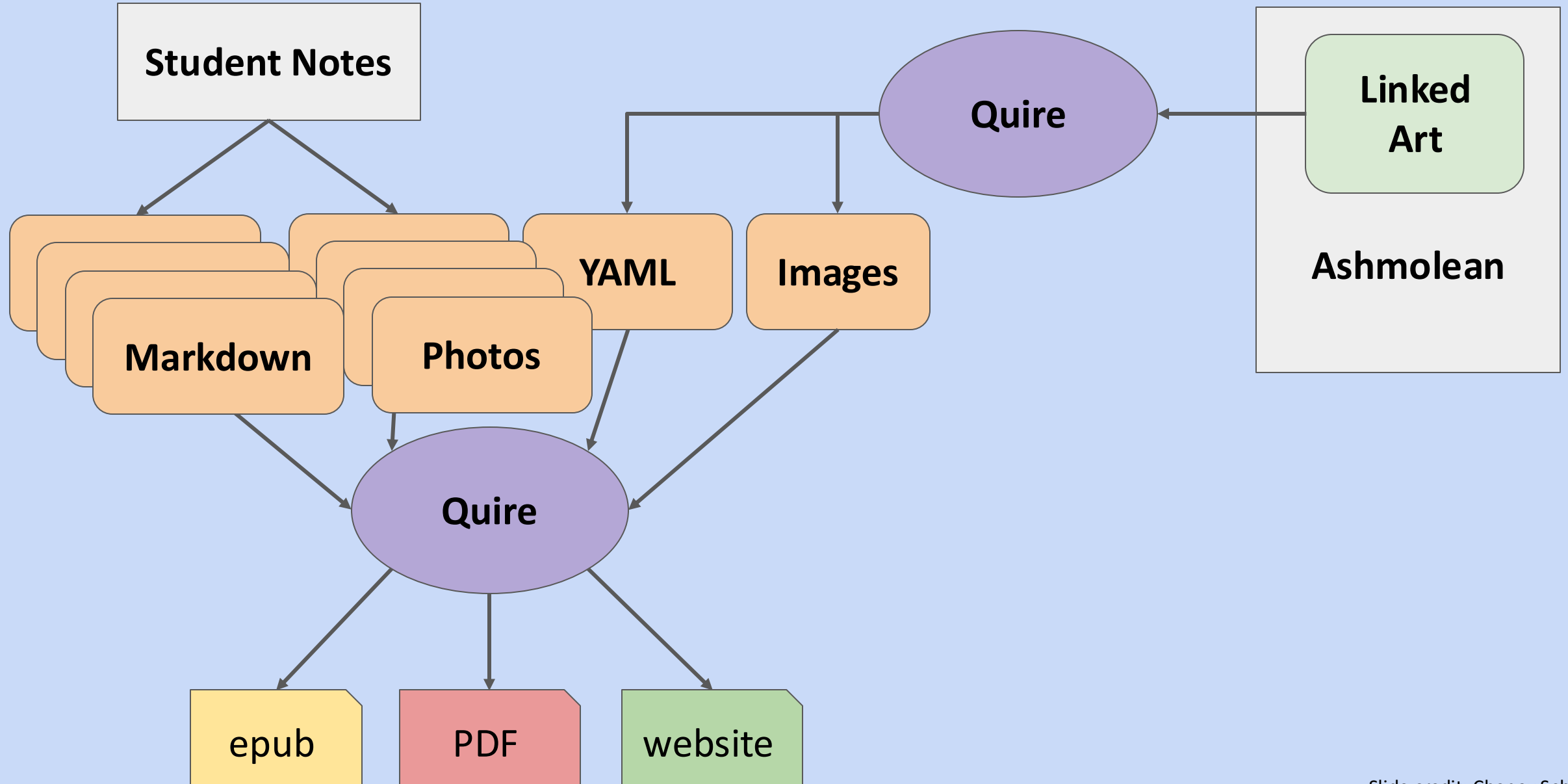


Using the **identifier** allows the story (in Markdown) to reference the structured data (in YAML)

Why do we want to use an **identifier**? How unique does the **identifier** need to be?

How could the **identifier** help with data at scale?

Combining our stories with the structured (Linked Art) data



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Feedback

"I liked going from the Ashmolean [visit] to publishing [the experience of] it"

"Most of the students, although they hear that we have a Rumble Museum, they've no idea what it is about. Making the links in that session explicit between us having a museum and that big old fancy building was really helpful."

"I think I would have liked to have been a bit tighter on their completed [handling] worksheet [...] Acknowledging that those sections weren't just reflective learning. This is something you're going to be using later, and it needs to be right."

"I felt we crammed too much into the Rumble session, I think we had enough material to cover two hours rather than one."

"I do wish that we had two or three separate [computing] lessons where we did one thing per lesson. The pacing had to move fast. I would like the lessons to be over separate days."

"I liked that [...] all children could attend"

"When we built the book, and they could see the output, that was really a motivating point for them."

"I like that the worksheet was really simple, they [the children] could follow it"

"Quire is really excellent in that it produces a professional looking output. I really like the way that you have these different files, so you can actually have lots of different pairs of students working on different catalogue files and then bringing them together."

"I think the navigation of the folders can end up confusing learners."

"The terminal is not really user friendly; I would prefer a user interface."

"Having people in pairs I wonder whether we should assign roles. One doing the writing and one being in charge of navigating the file system. One group was doing that."

"What I liked the most was the experience that we gave our children"

Enriching Exhibition Stories: Adding Voices to Quire with Linked Art

Project website including extension code, training materials, Labyrinth exemplar, the full set of resources for school outreach (lesson plans, slides, worksheets, etc.) available for reuse, and more:

<https://linked.art/community/projects/ees2/>

Many thanks to all our project team members and partners

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Martin Daniels
Louise Elias
Sophie Quantrell
Lorna Robinson
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Getty Quire team

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Research Council

