

Digitizing objects: Photographing and Scanning

Visualizing the past



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HPHI7010 Introduction to Digital Humanities

Heritage, archaeology, history and photography

- ❑ Photography – and now scanning as the new technological visual application – for a long time use in archaeology to document material culture
- ❑ BUT: still missing – critical examination of production, consumption, interpretation of photography across various heritage domains in order to define role photography played in emergence, expansion and delivery of heritage in diverse sociocultural contexts
- ❑ Need to understand role photography has played and continues to play in
- ❑ shaping experiences and conceptualisations of heritage. One of
- ❑ the core

Problem setting

- ❑ On site – expected to use Digital Cameras in order to allow better record on excavation and material culture → relying on automatic setting to get needed photograph
- ❑ BUT: photography = one of 4 basic records within archaeology/heritage next to Written, Drawn, Surveyed
- ❑ Stages of mastering
 - Novice – able to use automatic setting camera to take general recording shots + fill in photo record sheet (close supervision)
 - Competent – Understands basics of manual camera use, scales, lighting; preparing an area for photography + produce photo record sheet with minimal supervision
 - Proficient – masters digital + fully manual 35mm camera including Digital SLRs; produce a photographic record without supervision

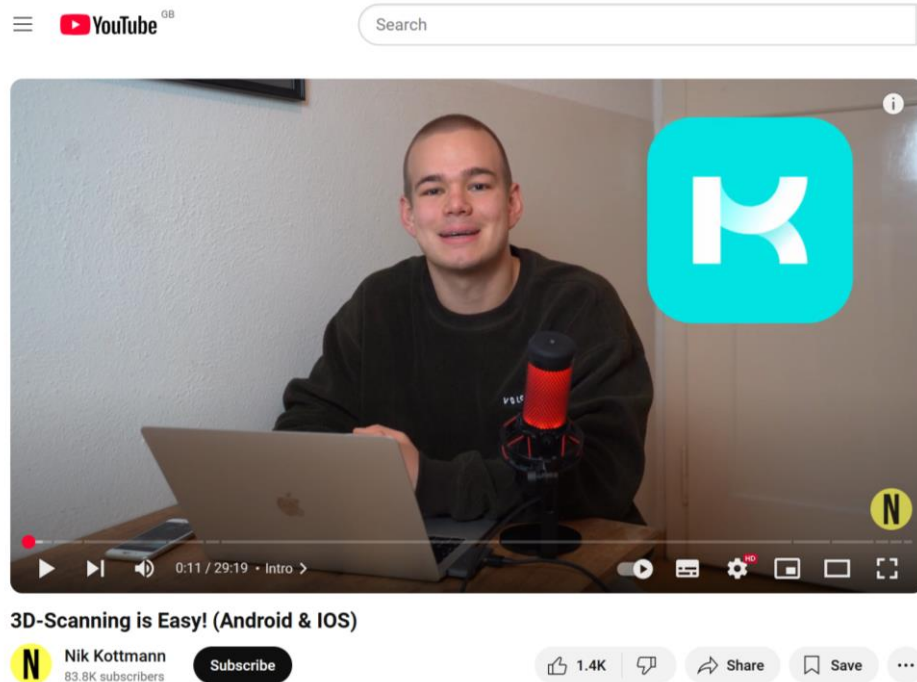
Most important!!!

□ Practice,
practice,
practice....



Especially for photogrammetry and 3D scanning!!!

YouTube ^{GB} Search



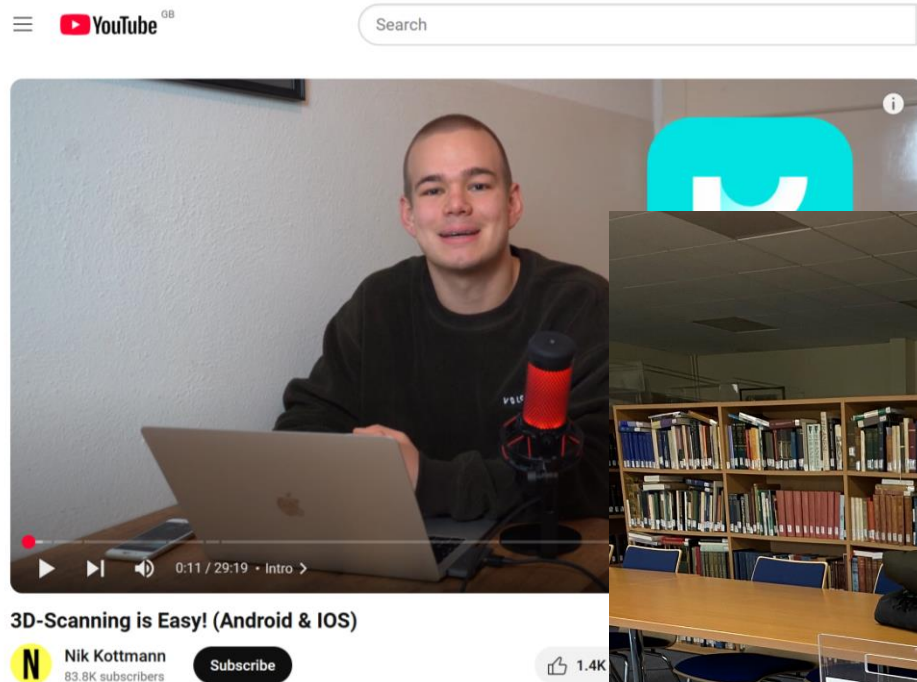
3D-Scanning is Easy! (Android & iOS)

N Nik Kottmann
83.8K subscribers

Subscribe

1.4K Comments Share Save ...

Especially for photogrammetry and 3D scanning!!!



Digitizing objects: Photographing and Scanning

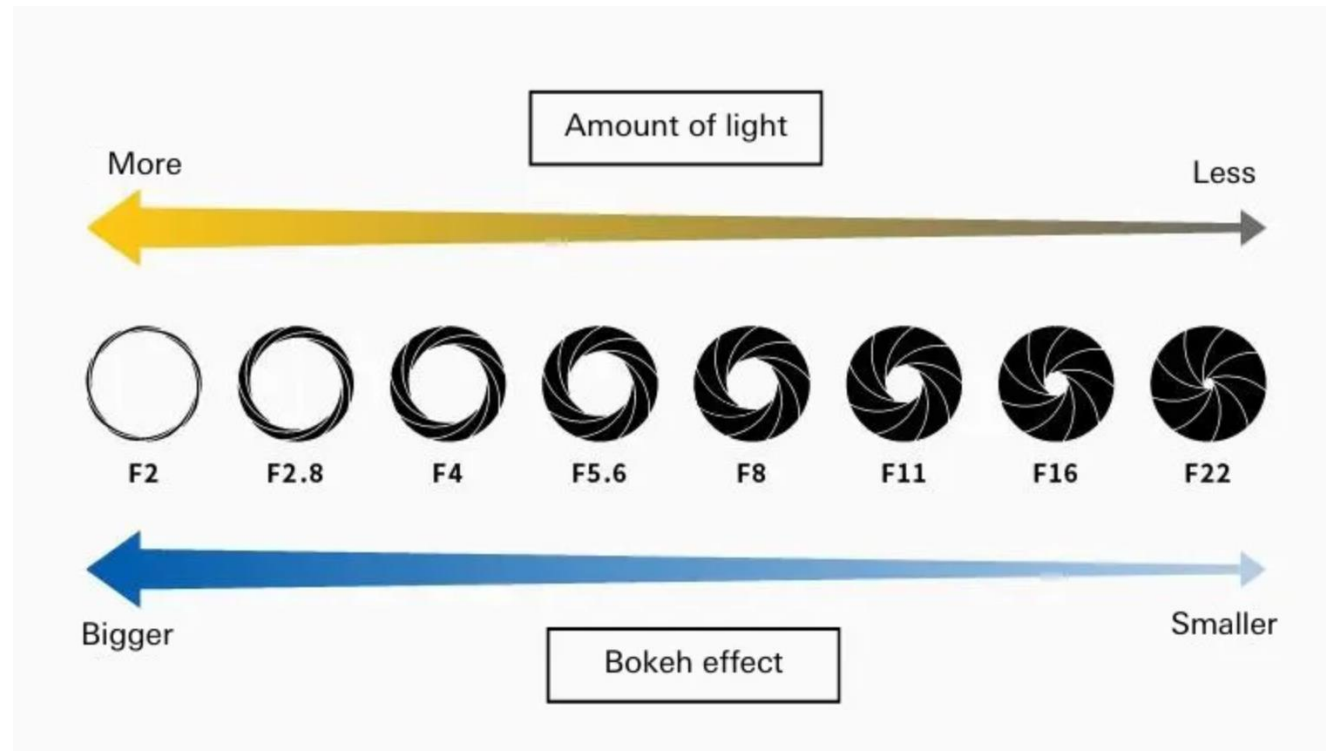
ARCHAEOLOGICAL AND HERITAGE DOCUMENTATION



First professional tips:

- A large f-number (ie f16 – F/ aperture: number = measure of speed and clarity of optical system) creates a large depth of field where subjects both near and far will be in focus

bokeh = aesthetic quality of blur produced in out-of-focus parts of image (foreground/background or both)



First professional tips:

- ❑ A tripod keeps the shot steady, if you don't have a tripod, breath in then fully out before taking the shot
- ❑ For capturing landscapes or video → tripod = absolute must-have: stable foundation for camera + allows sharp shots even in low-light conditions; enables o experiment with slower shutter speeds (without risking camera shake-induced blurriness)



First professional tips:

- Depending on your site you may have a Photoboard, North Arrow and Scale



- At least a scale has to be in the image



First professional tips:

- ❑ Record each shot and use the camera image number (saves mistakes in the sequence later on if you accidentally miss a photo, delete it or take two.)



First professional tips:

- ❑ Consider what you are trying to photograph before you take the shot, and ensure the area is clear of buckets, tools and people's feet



-
- Mastering difficult to photograph objects
- “play around”



Please put with your
collection

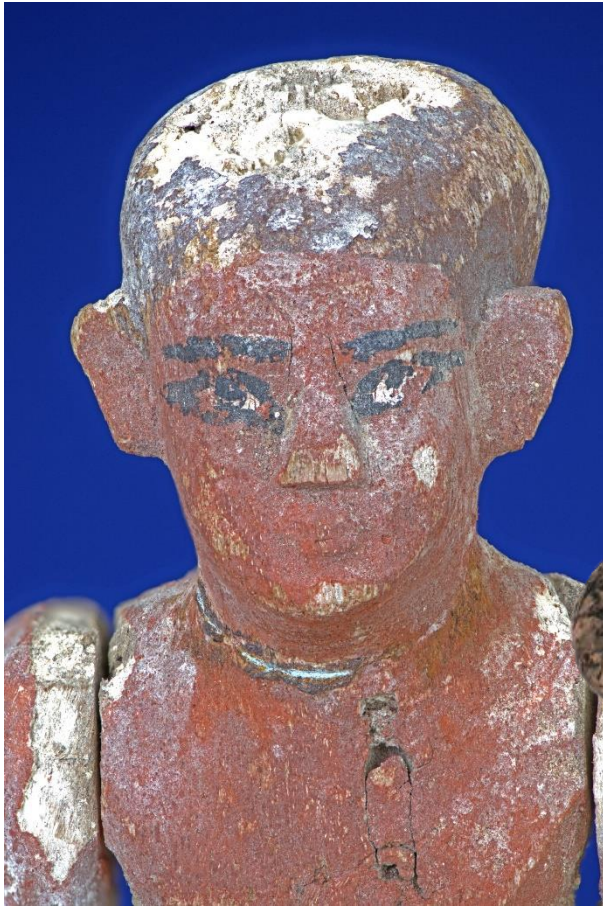
310.004

Ancient Egyptian
necklace
of cylindrical beads
No. 900.

Excavated at Gurob by
Prof. Hendrick Pease
Here a quantity of beads
taken from each of a
series of



The Egyptian Collection at Cyfarthfa Castle Museum and Art Gallery Merthyr Tydfil





portalis



Tionól Réigiúnach an Deiscirt
Southern Regional Assembly



Clair Chistí Eorpacha Struchtúrtha
agus Infheistíochta na hÉireann
2014-2020

Cómhaoinithe ag Rialtas na hÉireann
agus ag an Aontas Eorpach



UNDEB EWROPEAIDD
EUROPEAN UNION



Ulywodraeth Cymru
Welsh Government

**Cronfa Datblygu
Rhanbarthol Ewrop
European Regional
Development Fund**



**SE
TU**

Ollscoil
Teicneolaíochta
an Oirdheiscirt
South East
Technological
University



**Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David**



Cyngor Sir
CEREDIGION
County Council



**Waterford
Chamber**
Advancing business together



Evidence based – Archaeology

- Excavation in Wales
 - 2022
 - 2023
- With public and student volunteers





Connect new finds with museum objects in Aberystwyth and Waterford



Portalis on Scetchfab – similar objects already in participating museums

Sketchfab EXPLORE BUY 3D MODELS FOR BUSINESS Search 3D models LOGIN SIGN UP

SUMMARY 86 MODELS **COLLECTIONS** 2 LIKES

Portalis Project - Welsh Collection

3D Models

SUBSCRIBE EMBED SHARE REPORT COLLECTION

6 models - 0 subscribers



Portalis - Late Mesolithic Flint Flake (Wales) 17 0 0



Portalis - Late Mesolithic Bladelet 22 0 0



Portalis - Neolithic Axe Head 15 0 0



Portalis - Late Mesolithic Flint Microlith 46 0 0



Portalis - Late Mesolithic Crested Blade 14 0 0



Portalis - Late Mesolithic Bipolar Flint Core 16 0 1

Project highlights – with project partner Ceredigion Museum



- Exhibition
 - May/June 2023 – temporary exhibition
 - From July 2023 – legacy exhibition



Nikon D5600, 29mm, f/4.2, 1/60s

Project highlights – with project partner Ceredigion Museum





Nikon D5600



Nikon D5600, 86mm, f/4.8, 1/60s



Nikon D5600, 140mm, f/4.8, 1/25s



Nikon D5600, 70mm, f/4.5, 1/50s

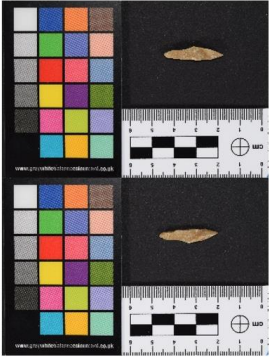


Nikon D5600, 130mm, f/4.8, 1/60s

Challenges

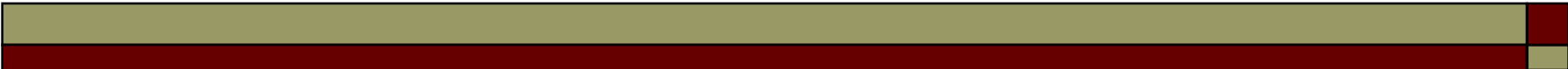
How to translate the finds into an interesting VR simulation?



Artefact	Useful images and videos	Time period (generalised dates)	Purpose of artefact	Toolmaking	Significance
2. Microlith 	   	Late Mesolithic (c8,000 to c3,500 BC)	Composite piece of a tool which could be used as an arrow or dart, a harpoon or a grater	Material: Flint Composition of tool: Fits into wooden or bone haft, secured with birch tar or pitch (see images) Provenance of tool or material: Pebbles collected on beach	Variations of this tool type are found in Britain from the end of the last ice age (11.5 thousand years ago) until well into the Neolithic (5.5 thousand years ago) This was a popular and versatile tool in use for around 6 thousand years

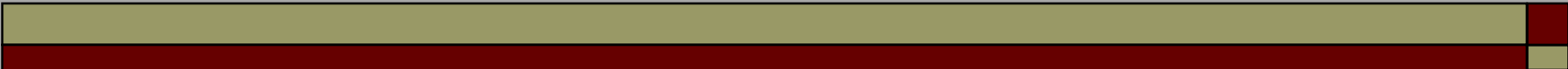
Digitizing objects: Photographing and Scanning

CREATIVE INTERVENTIONS

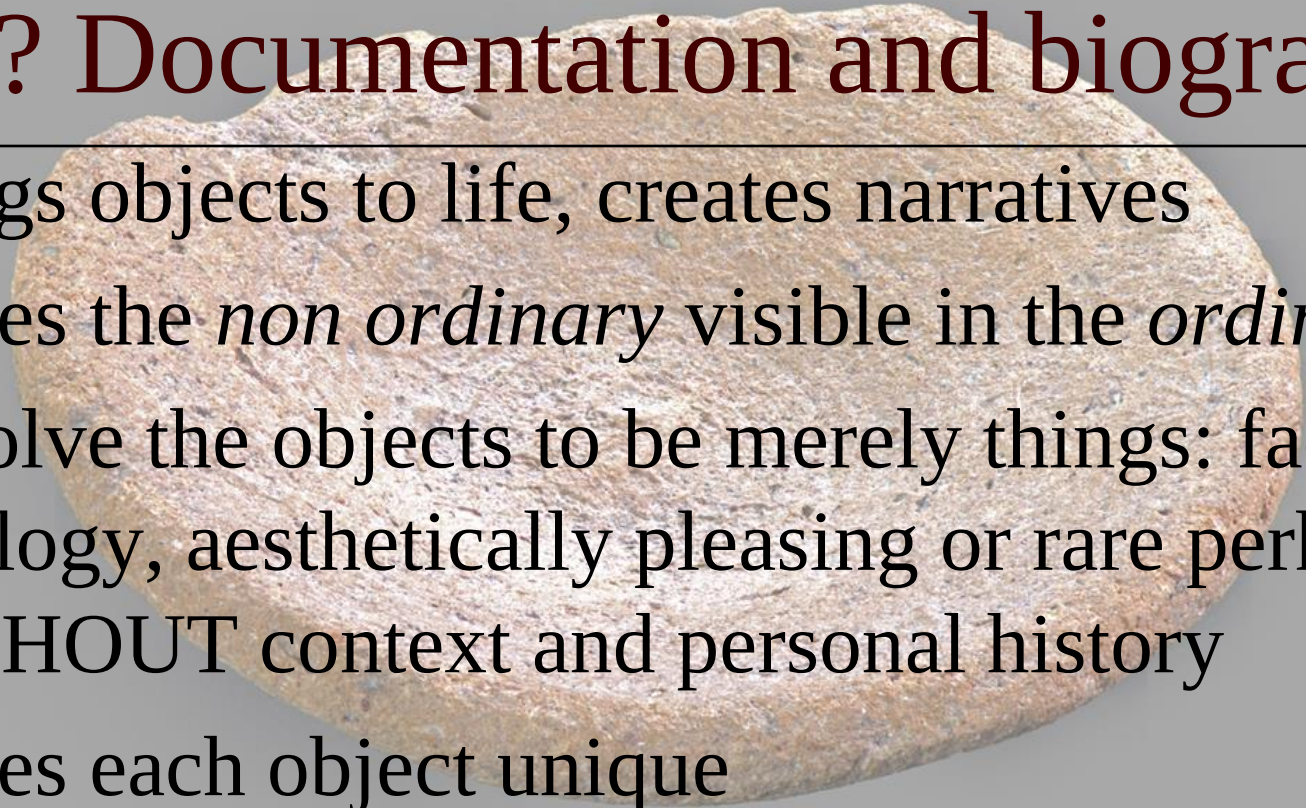


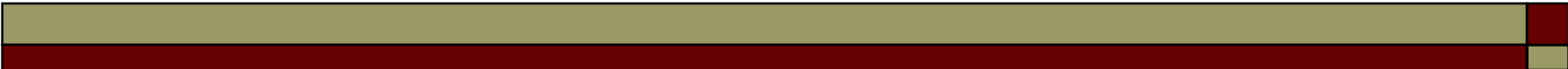
Analyzing material in museums

- ❑ How do you deal with largely disturbed contexts?
- ❑ How do you manage a huge quantity of finds?
- ❑ How do you identify specific items among mixed groups?
- ❑ Which deeper insights do you gain by analyzing difficult objects and contexts?
- ❑ **Which methods proved useful to you and which not?**
- ❑ How do you cope with inconclusive results?
- ❑ How can we increase awareness of the importance of



How? Documentation and biography

- 
- ❑ Brings objects to life, creates narratives
 - ❑ Makes the *non ordinary* visible in the *ordinary*
 - ❑ Absolve the objects to be merely things: factors in typology, aesthetically pleasing or rare perhaps, WITHOUT context and personal history
 - ❑ Makes each object unique
 - ❑ As custodian of the object: look for clues concerning the personal history of the artefact
 - ❑ **Knowledge and Story forms the biography**



Cultural (re-)discovery of dormant objects

- ❑ cooperative project between Cyfarthfa Castle Museum, Merthyr Tydfil, Wales and the University of Wales Trinity Saint David – Lampeter Campus
- ❑ Aim: bring these objects back to life by creating different simultaneous types of cultural representations via academic outputs, Egyptological exhibitions, story-telling, a *museum of lies*, and art exhibition (inspired by the objects)
- ❑ “unpacking the collection”, to trace the “networks of material and social agency” (Byrne *et al.* 2011)
- ❑ → **HOW?**



Entangled (Hodder 2012)

- ❑ Humans depend on things
- ❑ Things depend on humans
- ❑ We need to think differently about things
→ understand and create entanglement



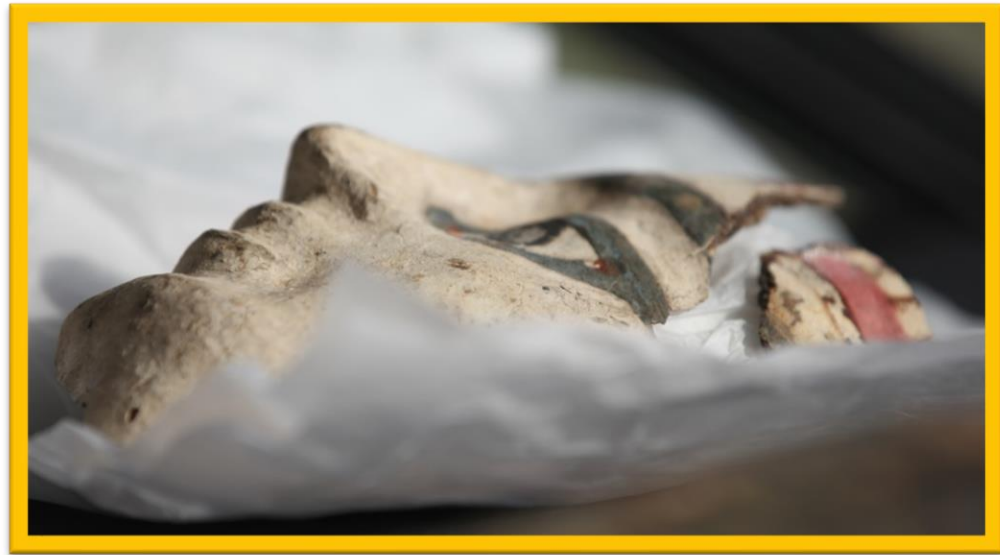


Playing around with things

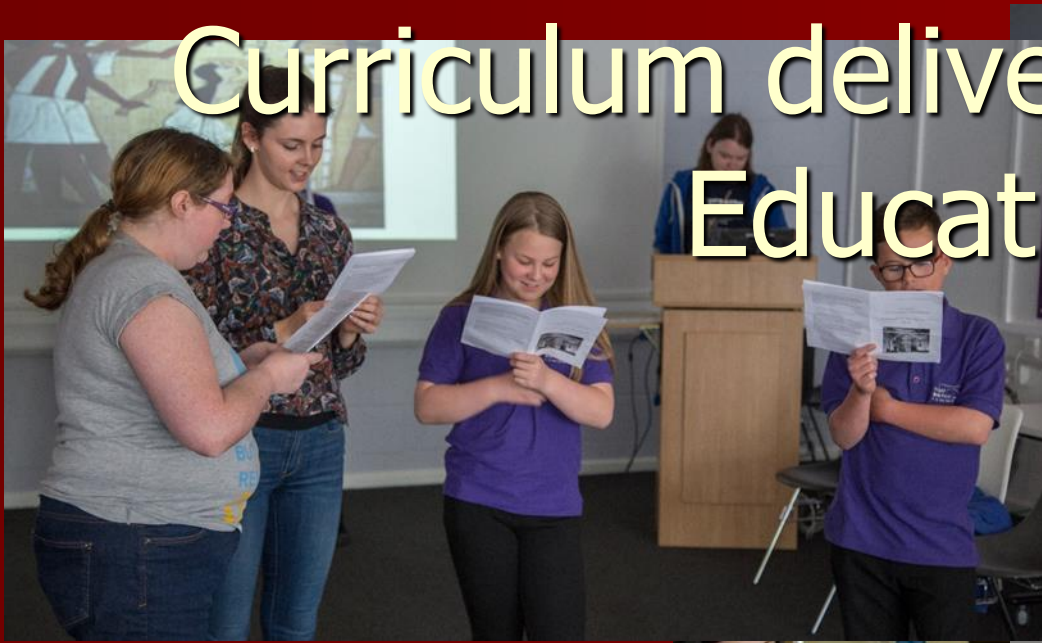
❑ *non-cared-for /
unprovenanced objects* in
museums

- Lost objects
- Forgotten objects
- Misplaced objects
- Unloved objects

❑ Creative responses



Curriculum delivery: Religious Education

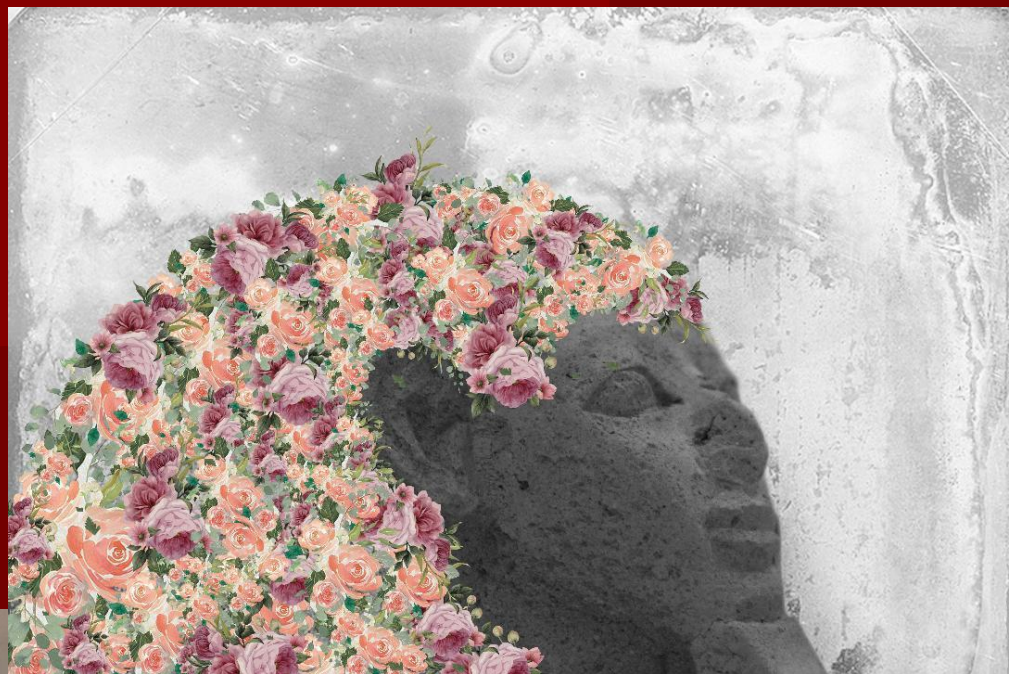
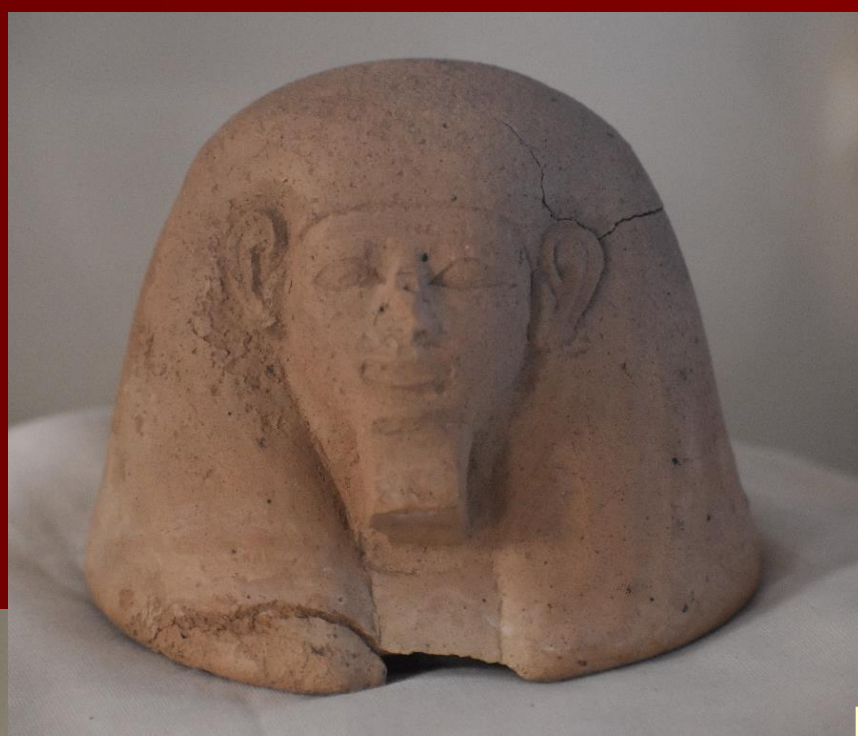






Ushebti (CCM 1694.004)
Graphic Design –
Gethin Bevan; Collage
“Where am I – The
Inbetween” – Friederike
Zinn)





Lid of Canopic Jar (CCM 1706.004)
Photographic Collage – Madeleine Smith



Experimental and experiential archaeology



CREATE YOUR NARRATIVE – guided by your **particular** object

- **Heritage Studies** – Welsh heritage
- **Archaeology** – excavation in the museum's storage rooms secondary arch.) and theory
- **Anthropology** – methods and theory
- **Egyptology** – searching for comparative objects
- **Museum Studies** – presenting of objects
- **Memory Studies** – collector antiquities dealer
- **Material Culture Studies**
- **Postcolonial Studies**
- **Art and Design, Creative Writing** – creative interventions

ANCIENT EGYPT COMES TO LAMPETER

EXHIBITION OF
ARTEFACTS FROM CYFARTHFA CASTLE
MUSEUM, MERTHYR TYDFIL

"I HAVE FLOWN UP IN PRIMEVAL TIME"

ANCIENT EGYPTIAN FUNERARY BELIEFS

ENTRY FREE

WHERE

Roderic Bowen Library and Archives,
University of Wales Trinity Saint David

WHEN

24th May—2nd June 2018
Open Mon-Fri 10am - 4pm



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David



EVENTS:

THU 24TH MAY 2018 @ 3PM – ALL WELCOME,
ENTRY FREE

PUBLIC OPENING - WITH
PRESENTATIONS GIVEN BY THE
INVOLVED STUDENTS AND RECEPTION,
ALL WELCOME

FRI, 25TH MAY

WORKSHOP DAY WITH YSGOL BRO PEDR
ANCIENT EGYPTIAN AFTERLIFE
BELIEFS

TUES, 29TH MAY

PUBLIC TALK (DR. KATHARINA ZINN) –
ALL WELCOME, ENTRY FREE

**DID YOU SLEEP WELL? – THE BODY,
THE SENSES AND ANCIENT
EGYPTIAN HEADRESTS FROM
CYFARTHFA CASTLE MUSEUM,
MERTHYR TYDFIL**

THU, 31ST MAY

WORKSHOP FOR HOME-SCHOOLED
CHILDREN (AGE 10-16) – ENTRY FREE
BUT RESERVATION REQUIRED (RVSP
K.ZINN@UWTS.D.AC.UK)

Sleep like an ancient Egyptian – hear
about sleep in death, try to lie down on an
Egyptian headrest and make a headrest
amulet



DID YOU SLEEP WELL ON YOUR
HEADREST?—
ANTHROPOLOGICAL
PERSPECTIVES ON AN ANCIENT
EGYPTIAN IMPLEMENT in *Journal
of Ancient Egyptian
Interconnections* 17 (March
2018), 202–219

Storytelling as **engagement** and “**new truth**”

- ❑ Creating stories and narratives → to generate
 - *charismatic objects* (C. Wingfield 2010)
 - culture-bearing objects
 - enchanted objects
- ❑ Good storytelling creates a bond between the storyteller and their audience by engaging
- ❑ IMPORTANT: be serious about the frivolous and frivolous about the serious
 - Use academic knowledge
 - Create a new setting
 - New narratives / biographies to **re-focus on the object**

Lügenmuseum
Radebeul
of Richard
von Gigantikow
(aka Reinhard Zabka)



The creation of convincing truth(s) with innocent objects

The novel as museum: Orhan Pamuk's Museum of Innocence



A manifesto for the object?

(Following O. Pamuk's *Manifesto for Museums*)

WE HAD

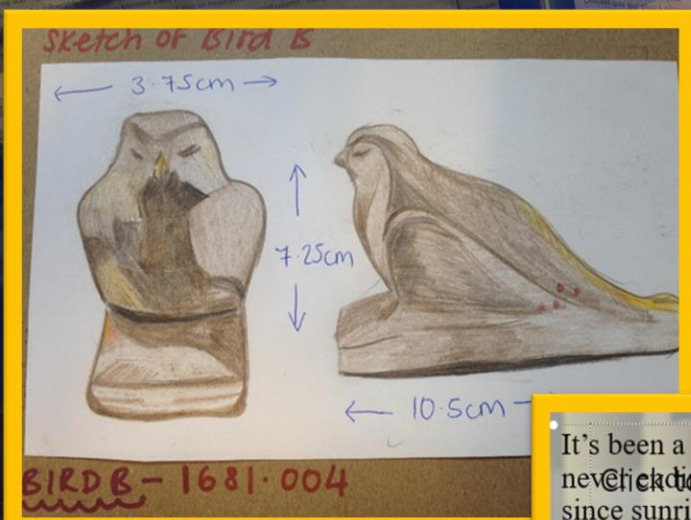
Epics
Representations
Monuments
Histories
Nations, Groups,
Teams
Large and expensive

WE NEED

Novels
Expression
Homes
Stories
Persons, Individuals
Small and Cheap

OBJECTS NEED

Stories
Attention
Awareness for
materiality
Identity (receiving
and giving)
Any scale



By adding narratives

It's been a long distressing Sunday, full of working and new Clicking and titles. The dog has been hysterically hyped since sunrise this morning. At about 6:20 Bobster, the dog, was driving me insane and I thought he needed an adventurous walk. He was trailing me along the tall straight grass by pulling me through to the other side. He was drastic to adventure the woods! We had not been for an exercise all day, so here we go.

Bobster tiptoed across the bridal path and started nosing in a hill of red leaves. He dug and stared when he saw a wooden detailed bird. I plunged down and tried working out what the little creature was. I went and picked it up before it flew off and was unseen.

A little wooden bird which turned into being colourful and alive.

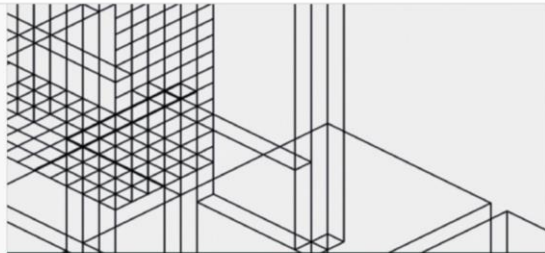




All (part-)truths
create the
understanding of the
object

Digitizing objects: Photographing and Scanning

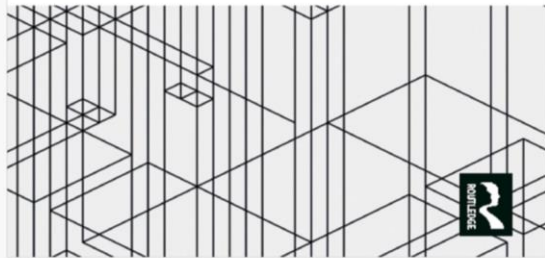
HERITAGES OF COLONIALISM: (ARCHAEOLOGICAL) PHOTOGRAPHY AND POSTCOLONIALISM



UCL Institute of Archaeology Critical Cultural Heritage Series

HERITAGE, PHOTOGRAPHY, AND THE AFFECTIVE PAST

Colin Sterling



Heritage, Photography, and the
Affective Past



PHOTOGRAPHING TUTANKHAMUN

ARCHAEOLOGY, ANCIENT
EGYPT, AND THE ARCHIVE
CHRISTINA BIGG



RECLAIMING HERITAGE

ALTERNATIVE
IMAGINARIES OF MEMORY
IN WEST AFRICA



FERDINAND DE JONG
AND MICHAEL ROWLANDS
EDITORS