HOMININ REPRESENTATIONS IN MUSEUM DISPLAYS

Their role in forming public understanding through the non-verbal communication of science

Kari Anderson
Biological and Comparative Anatomy Research Unit,
Discipline of Anatomy and Pathology,
School of Medical Sciences,
University of Adelaide

November 2011
DECLARATION

This thesis submitted to the University of Adelaide in fulfilment of the requirements for the degree of Doctor of Philosophy (Medicine).

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Karen Anderson

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Date
PUBLICATIONS

The following items resulting from the work described in this thesis have been published or otherwise publically presented, and sections of these are included in the present thesis.

PUBLISHED ABSTRACTS (PEER REVIEWED)


CONFERENCE POSTERS

80th Annual Meeting of the American Association of Physical Anthropologists (2011) – Poster Title “3–dimensional hominin whole body and facial reconstructions in European museums”

22nd Australasian Society for Human Biology Meeting 2008 – Poster Title “Recognition of reconstructed hominin faces”

77th Annual Meeting of the American Association of Physical Anthropologists (2008) – Poster Title “Realistic human reconstructions; a help or a hindrance to the promotion of scientific knowledge”
ABSTRACT

Key points
- 71 institutions visited
- 860 hominin representations assessed
- Earlier hominins are treated differently from *H. sapiens* and often convey inaccurate scientific information

Hominin representations in museums and other displays have been used for well over a century to illustrate the people of the past. The popularity of archaeological and forensic facial reconstructions in the media ensures that they will be popular for some time to come. The aim of this work is to ascertain how hominin representations displayed in museums convey to the public interpretations of human evolution, variation and behaviour. These representations are a unique form of museum material culture as they are used as both part of the display and as an artefact that displays scientific knowledge from its era of manufacture. Various institutions (71) in 10 European countries and Australia were visited. Out of those, 55 hold altogether 860 life-sized and three-dimensional hominin representations.

Ten representation types were identified: facial reconstructions (*n*=100), facial reconstructions on a body (*n*=92), casts (*n*=158), educational sculptures (*n*=104), museum mannequins (*n*=99), standard mannequins (*n*=87), portrait figures (*n*=147), medical models (*n*=27), costume dummies (*n*=31) and miscellaneous representations (*n*=15). These representations were found to be displayed in four different contexts: complete contexts (e.g., dioramas and tableaux), partial contexts (e.g., life–groups), in a series or as a solo figure. The terminology used to classify representations and their context was found to be inconsistent in both the museums and in the literature. The various taxa found included *Kenyanthropus, Australopithecus* and *Homo* species. The facial realism of these representations ranged from blank faces to highly detailed faces, which were also extremely realistic. The earlier hominin representations were more highly
detailed than the *H. sapiens* representations, even though many of these details are unknown. Particular facial features (such as eyes, oral cavity and individual eyelashes and brows) were also found to increase the perceived realism of the representation. The body proportions of the earlier hominin taxa were found to be inconsistent within the various taxa and with scientific knowledge. Faces of the earlier hominins were found to be genus specific (i.e., *Australopithecus* and *Homo*) rather than species specific: essentially the representations looked either human or pre–human. There was also a range of biases in the sample, for example 66% of the representations were male and 70% were adults (approximately 20–40 years).

These findings may enable museums to use hominin representations in the most effective way possible in terms of the intended purpose of the exhibition in which they feature, their expected audience and the museum’s economic constraints.
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INTRODUCTION

Bias and Errors

MATERIALS: HOMININ REPRESENTATIONS

DETERMINING THE TYPES OF SUPPLEMENTARY INFORMATION

Anatomical Features

Cultural Indicators

ANATOMICAL FEATURES

THE IMPORTANCE OF SEX

Sex Assessment

RESULTS

DISCUSSION

AGE GROUPINGS

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RESULTS

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A. MUSEUM LIST

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D. NUMBER OF HOMININ REPRESENTATIONS BY INSTITUTION

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F. FACIAL REALISM DATA FOR THE EARLIER HOMININ SAMPLE

G. ANTHROPOMETRIC POINTS
H. RECOGNITION OF HOMININ SPECIES FACES FROM A CHRISTIAN PERSPECTIVE
I. CD LIST OF VIDEOS
There are terms used in this thesis that may offend the reader. The author has used the terms and information from labels displayed at the museums and institutions visited for this study. Some of these institutions have old exhibitions on display and may use out–dated or insensitive terminology. As these terms were still in use at the time of the museum visit they have been used in this thesis.

Some of the terminology employed in these labels is specific to a particular era and was originally used to identify a group of people. Some such terms have since been applied in a derogatory manner; this is not their intended use in this thesis.

Because of the topic of this thesis, please also be aware that some of the figures and photographs may contain images of human remains or casts of Indigenous people who have since died.
A NOTE ON NOMENCLATURE

Neandertal is spelt in two ways in this thesis. Firstly this serves to differentiate between the Neanderthal Museum in Mettmann, Germany, which uses the original spelling, and the Neandertal representations that are a part of this study. Secondly, the new spelling of ‘Neandertal’ has been used for the representations to reinforce the idea that there is debate about their position in our ancestral lineage\(^1\). This differentiates between *Homo neanderthalensis*, which indicates a separate taxon, and ‘Neandertals’ with the implication of the uncertainty about their taxonomic placement.

‘*Pithecanthropus*’ is not used in this thesis as a taxonomic designation as the skeletal remains in this taxon have been reclassified as *Homo erectus*. Other taxonomic names follow the convention used by the particular museum being considered at any given point in the text.

\(^1\) See for example Saniotis A, and Henneberg M. 2010. Rehabilitating Neandertals*: anthropological constructions of Neandertals in the process of 'othering'. Before Farming 4:article 3, 1-11.
ACKNOWLEDGEMENTS

To get through the hardest journey we need take only one step at a time, but we must keep on stepping.

Chinese Proverb

A journey is best measured in friends rather than miles.

Tim Cahill

Completing a PhD thesis really is a journey, an incredibly difficult and rewarding one, I have found, and this journey has only been possible with the help of each of the following people. Everyone listed here has helped me over the years to complete my thesis in some way. I had not realised the number of people that would, in some way, be involved in my PhD.

To my supervisors Professor Maciej Henneberg and Dr Leonn Satterthwait, thank you for your help, support and persistence

Dr Rachel Norris, thankyou for stepping up and helping out by being an acting supervisor when you were needed; you gave me a new perspective and helped to contain my project

To the myriad of people who assisted me in many ways during my research trips, thank you so much. Your help enabled my work to be done; in particular thank you to these museums and their staff and friends:

European Research Trip 2006

Austria

Haus Der Natur, Salzburg – Andrea Bryk.
Naturhistorisches Museum, Vienna – Margit Berner for her help during my visit, for opening her home to me and introducing me to the real Wien and for bringing the Museum of the History of Medicine to my attention and for letting me photocopy information for my osteology course and for the catalogue for the exhibit ‘The Human Story’ and book ‘Anthropolgie’. Also thanks to Maria Teschler–Nicola for her assistance.

Museum of the History of Medicine, Vienna
Belgium

Africa Museum (Koninklijk museum voor midden-afrika/ musee royal de l'afrique centrale), Tervuren – Els Cornelissen for her assistance and meeting me at such short notice.

Museum of Natural Sciences, Brussels – Patrick Semal and Laurence Cammaert for their help and assistance.

Flanders Field Museum, Ypres

Municipal museum Vander Kelen–Mertens, Leuven – Veronique Vandekerchove for her interest, and the extra help in photocopying information for me.

The Miller family, Anita, Jeff, Zach and Caitlin for the comfy bed, wonderful company and the extra trips around Belgium and into Holland to show me the sights and to visit extra museums especially the Flanders Field Museum in Ypres.

Pavla Malá, Czech Republic.

England

Ashmolean Museum, Oxford

Cast Gallery, Oxford – Catherine Draycott and Daniel Bone.


Colchester Castle Museum, Hollytrees Museum and the Colchester Natural History Museum, Colchester – Paul Sealey for all his help and for introducing me to Elderberry cordial, and staff for their assistance, especially for removing Camilla from her display for a photo shoot.

Corinium Museum, Cirencester – Judy Mills for her assistance and the information about the brief for the Anglo–Saxons as well as the booklet on the Corinium Project.

Dover Museum, Dover – Mark Frost for all the information about the displays and to the other staff as well for all their assistance.

Jorvik Viking Centre, York – Clea Warner and staff for all their help and assistance during my many rides through the centre.

Manchester Museum, Manchester – To John Prag for all his assistance and to his lovely wife as well for allowing me to stay.

Madame Tussauds, London

Museum Of London, London – Jon Cotton and Jenny Hall for all their assistance and information; Jonty Stern for letting me stay at his place.

Natural History Museum, London – Chris Stringer for all his help; also to Clair Henry for hers.

The Oxford Story, Oxford – Maciej for joining me on the trip around the Oxford Story.

The Oxford University Natural History Museum, Oxford – Malgosia Nowak–Kemp.

The Pitt Rivers Museum, Oxford

Stan Ulijaszek for allowing me to meet with Maciej in the offices that he shared with you at Oxford.

Richard Neave for the artistic tips, allowing me to stay for a few days and for building up the fire for the poor Australian unused to the Manchester summer.

France

The Catacombs, Paris

The Eiffel Tower, Paris

The Louvre, Paris

Musee De L’homme, Paris – Lionel Gauthier.
Germany

Senckenberg Forschungsinstitute Und Naturmuseum, Frankfurt – Friedmann Schrenk for allowing me amazing access to his offices and for thoughtfully arranging for Jeremy to help me out. Jeremy Tausch for helping me feel at home not only at the Senckenberg but also in Frankfurt and for coming with me to Darmstadt and giving me his view of the museum. Christine Hertler for introducing me to the Hessisches Landes–Museum in Darmstadt and organising my trip there and her student to help Jeremy and myself get around.

Hessisches Landes–Museum, Darmstadt – Connie Kurz for all her help at the museum and for taking the time to guide us around Messel, letting us dry out at her place; also to Oliver Sandrock for all his help.

Archaologie Museum, Frankfurt

Neandertal Museum, Mettmann – Flora Gröning for all her help at the museum and for letting me stay with her; Bärbel Auffermann and staff.

Hungary

Budapesti Torteneti Museum, Budapest – To the lovely staff that helped me find the right museum.

Magyar Természettudományi Múzeum (Hungarian Natural History Museum), Budapest – Judith Holler and Ágnes Kustár for all of their assistance and the people that helped in emailing me back during their summer holidays.

Portugal

The Ethnology museum, Lisbon

Museu Geológico (Geology Museum), Lisbon – Joaquim Jorge.

The Evora Ossuary, Evora

The Leiria Castle museum, Leiria – Susana Carvalho and staff all of whom were very helpful.

Maia Langley and family, Carolina, Mary Cochrane, Hal Johnson, Dave, Sarah, April and Cristina.

Scotland

Hunterian Museum, Glasgow – Jeff Liston for being so incredibly helpful especially in letting me use the Internet and showing me the stored items as well as arranging for me to speak to Keith; Tara for the information about her project and Keith Ingham for coming in and giving me the information about the Homo habilis representation.

Mcmanus Galleries, Dundee – Christine, Fiona and Julie for talking to me about the future display at the gallery.

Caroline Needham for letting me crash at her place during my stay in Dundee.

Caroline Wilkinson for her help, the information on her work, for putting me in touch with staff at the Mcmanus Galleries in Dundee.

Chris Rynn for his assistance.

The Netherlands

Drents Museum, Assen – Vincent van Vilsteren for all his help in letting me stay during my trip to Assen, taking me to Groningen, introducing me to Wijnand and Bert, telling me about the exhibit in Hungary and the wonderful books and the photocopying, etc.; Wijnand van der Sanden for the articles and the extra information about Yde Girl.
Eindhoven – Nico Arts for taking Marcus out for a walk, organising somewhere for me to stay, giving me the chance to wash medieval skulls, showing me the dig site, and finally for the books; also Chris, Lisbet, Alex and the others.

Museon, Den Haag – Arno van Berge Henegouwen.

National Antiquities Museum, Leiden – Maarten Raven.

Universiteitsmuseum, Groningen – Bert Korendijk, Brigitte Hekker.

Remie Bakker for showing me his studio and moulding/casting techniques and allowing me to crash at his place and the quick trip around Rotterdam.

Jan Willem Tuinman for also allowing me to crash at his place and talking to me about the finer points of taxidermy.

Alfons Kennis.

Maja d’Hollosy for talking to me and taking me out to dinner in Amsterdam.

Wales

Cardiff National Museum, Cardiff – Steve Burrow.

Australian Research Trips

South Australia

Art Gallery of South Australia, Adelaide – Thanks to Tracey Dall for the kind permission for allowing me to photograph and acknowledge that the sculpture is by Duane HANSON United States, 1925–1996 Woman with a laundry basket 1974, Davie, Florida and Berlin, surface paint oil. Cardboard, resin, talc, fibreglass, fabric, plastic, cardboard packaging, 165.0 x 84.0 x 70.0 cm (variable)

South Australian Government Grant 1975, Art Gallery of South Australia, Adelaide 753S2, as per copyright requirements, in my thesis

South Australian Museum, Adelaide – Keryn Walshe, Tara and staff.

The Historic Trust Gallery – Mandy Paul and staff.

Queensland

Cairns Museum, Cairns – Les.

Cairns District Police Headquarters, Cairns – Gordon Anderson.

Museum of Tropical Queensland, Townsville – Peter Gesner.

My lovely brother Gordon, his wife Mellise, and their children Marisa and Nick for all their help on my trip to Cairns and Townsville.

Queensland Police Museum, Brisbane – Lisa Jones.

Brigid Sweeny for all the help and the comfy bed during my Brisbane trips and for using the phone

Nadja and Mary for the comfy bed when I needed it on my Brisbane trips.

The Australian Stockman’s Hall of Fame and Outback Heritage Centre, Longreach – Wendy Tabrett and staff.

Ripley’s Believe it or not!, Surfers Paradise

Mark Upton for visiting Ripleys Believe it or not!, on the Gold Coast and giving feedback about the attraction, and also for letting me crash at his place during some of my Brisbane trips.

Royal Flying Doctors Service Cairns Base Visitors Centre, Cairns – Rex and Ali.

Qantas Outback Founders Museum, Longreach – Steve Eather, Tony Martin.

The Waltzing Matilda Centre, Winton – Rachel.
Lisa Clarke, and her children Nathan and Lorryn, for the trip to Winton, and giving feedback about the Waltzing Matilda Centre.

Townsville Maritime Museum, Townsville – Staff.

New South Wales

Australian Museum, Sydney – Fran Dorey, Yvonne Carillo-Huffman, Taloai, Vanessa, Lynda, Prue and Scott.
Australian Tennis Museum, Sydney – Bronwyn Alcorn.
Hyde Park Barracks Museum, Sydney – Brad Manera.
Justice & Police Museum, Sydney – Anna Ridley, David and the volunteer guides. Katrina for putting me up for the fortnight while I was in Sydney.

Victoria

Antons, Melbourne – Anastasia for the information about the mannequins and the photographer.
Bangerang Cultural Centre, Shepparton – Marlene Atkinson and staff.
Cooks’ Cottage, Melbourne
Henry Forman Atkinson Dental Museum, Melbourne
Melbourne Museum, Melbourne – Kathy Fox, Nurin Veis, Penny Ikinjer, Karina Palmer, Peter Swinkles, Ron and staff.
Shot Tower Museum, Melbourne
State Library of Victoria, Melbourne
Victoria Police Museum, Melbourne – Steve Eather, Terry Claven for the forensic contacts and information.
Robyn Jenkins for the bed and the CWA meeting.
Ronn Taylor for all the assistance and contacts, the wonderful company and Chris for putting up with all the shop talk during the delicious dinner.
John Clement for the loan of the Szeged slides, information about Peter Claes’s work as well as his own.
Janet Davey for the information sharing and the interesting discussion as well as the extra contacts.
Adrian Paterson for the information about FACES and what his job entails.

Anatomical Sciences and School of Medical Sciences, University of Adelaide

Manisha, Jo, Nick, Kara and Rebekah for being part of my cohort.
Malcolm Brinn for use of his colour printer, his encouragement and over the top flattery when I needed it.
Tavik Morganstern for his patience, photographic help and technological know-how.
Erica, Erin, Mario, Stellios, Wes and random students for helping me identify the Madame Tussauds figures.
Emma for being helpful.
Chris Leigh for helping me with my space issues along with everything else, especially the issues with the casting and moulding processes.
Eleanor Peirce and Julie Haynes for helping me with ideas.
John Ceccin for the help in obtaining equipment and supplies.
Mounir, Rachel N, Anthony, Malcolm, Maciej, Rebekah, Brian, Gail, Stellios, Michelle, Todd, Rachel J, Eee, Erica, Arthur, Rosie and Gerhard Kruger for participating in experiments.
Andrew Buchannan for answering odd questions at strange times.
Bob Vink for helping out with plane tickets when desperately needed.
Alice Stocker – you deserve special thanks for all your help during the thesis death throes, you are worth your weight in gold!
Beverly Karaffa, what can I say but THANKS, you’re my favourite.
Craig Hill at SAPAC for showing me how to use the haptics tool.
Walter and Dorothy Duncan Trust for the monetary assistance.
School of Medical Sciences for partial funding of this project.

University of Queensland

Jane Willcock for her help on my visits to the University of Queensland and the insight from her own research.
Carl Stephan – for the sharing of information.
Jaydyen for participating in an experiment.

Adelaide Friends

To Chris Crowe for being ever ready to listen to me rant at the pub and have a beer.
Eee for your help and support and friendship, life in Adelaide would have been very difficult without you.
And Ames in Oxford, thanks for the pep talks, emails etc.

Queensland Friends

Shosh Groves for making the trek to Melbourne.
Antje for keeping me sane.
Debbie Lewis for assisting with odd tennis questions.
Brigid for keeping me grounded.
Peter and Jeff, for the competition.

To my parents, how can I possibly list all the reasons I have to thank you. You are the most amazing parents and have put up with so much during my journey to reach this final destination, this thesis. I love you and am so glad that you are my parents, THANK YOU!

If there is anyone missing from the above list, I am very sorry to have not named you personally but please consider yourself thanked. Although I have tried to keep a record of everyone who has helped me over the last few years, I am sure that someone has slipped through the cracks and I am very sorry about that. My acknowledgements list has been constantly evolving and being updated throughout my PhD and it amazes me how many wonderful people have been a part of my journey.

So thank you for all your help.
Due to the nature of this thesis the format does not follow the usual conventions. This is due to the thesis drawing from various disciplines ranging from anatomy and palaeoanthropology to the humanities, the fine arts and social sciences. Out of necessity this thesis touches upon many topics but not all of them could be addressed fully. It concentrates on the evaluation of displays of human bodies in museums as a means of transmitting scientific information to the public, and address various topic with this goal in mind. A systematic approach was taken to address the limited terminology currently in use and to create classifications and methodologies in order to concentrate on the aims of the thesis. There are areas of this work that may be researched further in–depth which may be topics of separate studies.

This thesis begins with introductory remarks that are then followed by a background chapter covering a variety of topics to ensure that the reader has the required information upon which subsequent chapters are based. The third chapter details the data collection required for the research and defines the types of representations found and their context. This third chapter is essential reading for the following chapters as it lays the foundation for the sample upon which the following chapters are based. Chapter four details the type of finishing techniques used on the Homo sapiens representations in the sample. This is further expanded on in Chapter five, which looks at both the finishing techniques and the body size and shape of the representations of earlier hominins. An experiment on the recognition of hominin species is the basis of Chapter six, while Chapter seven discusses the types of information found in the representations and their contexts that may bias or influence the viewer. As each chapter has a specific focus and many of the references are chapter specific the references for each chapter will be given at its end, rather than in a complete reference list at the end of this thesis.
A large number (71) of institutions were visited in Austria, Belgium, England, France, Germany, Hungary, Portugal, Scotland, the Netherlands, and Wales, as well as Australia. The topic of this thesis has been embraced by the majority of the curators and museum staff that hosted the research visits and has resulted in a number of them requesting a copy of the finished thesis.