

**national
museum
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amgueddfa
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AMGUEDDFA CYMRU ETHICAL RESEARCH CODE OF PRACTICE

Introduction ¹

Research at Amgueddfa Cymru is driven by our vision, purpose and responsibilities as a Welsh Government Sponsored Body and as a registered charity with a Royal Charter. We are recognized by UK Research and Innovation (UKRI) as an Independent Research Organisation (IRO) on the basis of the research we undertake and the calibre of the staff undertaking that research.

Amgueddfa Cymru is Wales's national museums body. As such, we have a statutory duty on behalf of the nation, established by Act of Parliament at our foundation in 1907 and reaffirmed through Royal Charter (revised 2006), to educate the public. We achieve this through our vision – Inspiring People, Changing Lives – which was approved in December 2017. Research at Amgueddfa Cymru fulfils and underpins the vision and carries out the statutory duty of our Royal Charter through the Objects.

Our purpose, in support of this vision, is: to inspire people through our museums and collections to find a sense of well-being and identity, to discover, enjoy and learn bilingually and to understand Wales's place in the wider world.

In support of the vision, all our research strives for the highest levels of research integrity and ethics. Our staff benefit from working within a research culture that has high integrity and ethical standards at its very core. It is important that these standards are clearly articulated in a transparent and clear manner, so they are understood and applied both by our own staff and by others who do research with us or use our resources. These principles are backed up with appropriate and fair procedures for ensuring ethical conduct in research. It is important that these principles and procedures comply with accepted norms in the field of publicly funded research². The purpose of this Code of Practice is to set out these principles and procedures and to ensure that everyone who does research at or with Amgueddfa Cymru understands and adheres to them.

It is a requirement of research organizations (ROs) receiving public funding for research that they demonstrate a commitment to the principles of good research conduct, as set out by UKRI³. These require ROs to establish clear policies and guidance on what is acceptable and not acceptable in research conduct, and to put in place clear arrangements for the supervision and management of research conduct, integrity and ethical issues, and for the reporting by individuals of any concerns about poor practice in these areas. We will deliver training and development, and will monitor the conduct of research, to ensure these arrangements are met. These policies, guidance and arrangements are reflected in this Code of Practice. Even where research attracts no funding, whether public or

¹ Parts of this document are drawn from Cardiff University's Research Integrity & Governance Code of Practice, and we are grateful to the University for permission to use this document.

² These norms are outlined in the UK Concordat to Support Research Integrity (2012). The concordat outlines five important commitments that those engaged in research can make to help ensure that the highest standards of rigour and integrity are maintained.

³ See UKRI (2013) RCUK Policy and Guidelines on Governance of Good Research Conduct, updated 2017. <https://www.ukri.org/files/legacy/reviews/grc/rcuk-grp-policy-and-guidelines-updated-apr-17-2-pdf/> (accessed 10/10/2018).

private, it must still adhere in all respects to the principles and procedures set out here.

It is the responsibility of all staff, students and external researchers to make themselves familiar with and abide by this Code of Practice. Please read it carefully, visit the websites it references and help us to continue to conduct research with integrity and excellence.

1. Code of Practice for Ethical Research – Key Principles

This Code of Practice covers **all** research that is carried out by staff, students and external researchers at Amgueddfa Cymru, or that uses our resources. By undertaking such research, you are signing up to this Code of Practice. You are also taking full responsibility for the professionalism and integrity of all aspects of your research, and for the activities of any staff, students or external researchers under your direction.

In summary, this means:

- ensuring research is conducted ethically, in accordance with the principles and procedures set out in this Code of Practice
- reporting conflicts of interest, actual or potential, or suspected misconduct, using the appropriate channels (see Section 6.5)
- ensuring the physical and emotional well-being and safety of those associated with the research
- ensuring the integrity of the financial management of the research project
- doing your best to ensure that the research delivers the full public benefit that the funds and resources invested in it require
- adhering to all legal, ethical and other requirements laid down in policies and procedures.

1.1 Definitions – integrity, ethics and research relationships

All aspects of good research conduct need to be considered. There are general principles and commitments of **integrity** that ensure research findings are robust and defensible, including appropriate research design and frameworks, as well as **openness, accountability, rigour, care and respect**. Research **ethics** refers to researchers' conduct towards those living human persons who provide data for the research ('research participants'), as well as external organizations whose work is the subject of the research. This Code of Practice promotes high standards of integrity and ethics at all stages of a research project, assists staff, students and external researchers to meet legal and ethical requirements and helps prevent misconduct, whether through genuine human error or malpractice.

This document applies to all subject areas and to all members of staff involved in research, including staff conducting research outside Amgueddfa Cymru but as part of their work for Amgueddfa Cymru, as well as anyone not employed by Amgueddfa Cymru but with permission to carry out research with Amgueddfa Cymru, including

students carrying out research here and external researchers employed elsewhere (all referred to hereafter as **staff, students and external researchers**).

1.2 External researchers and their relationship with Amgueddfa Cymru

All researchers using our resources, and those of other organizations that are included in the research, whether or not they are employed by us, need to abide by this Code of Practice. In addition, external researchers not employed by Amgueddfa Cymru, with whom we have a mutually agreed collaborative research relationship and to whom we may grant privileged access to otherwise confidential data, have a responsibility to obtain our written agreement in terms of disseminating and publishing research findings, and the ownership of IP. These should be discussed and agreed by all relevant parties before research commences and recorded in the form of a Research Protocol, and monitored, and if necessary revised, on the same basis as the research progresses, according to the following principles:

Research Protocol

A written Protocol between Amgueddfa Cymru and staff, students and external researchers should be agreed before any research is undertaken. The following should be included:

Clarifying roles, rights and obligations.

The Protocol should clarify the respective roles, rights and obligations of all relevant parties (including any sponsor, funder or other organization, employer and researcher). In particular:

- A point of contact, nominated by the Head of Research, should be agreed, with regular review meetings scheduled.
- Where potential conflicts of interest seem possible, these should be discussed with the relevant Head(s) of Department, staff members and/or the Head of Research, and a process for resolution agreed.

Obligations of external researchers to Amgueddfa Cymru.

External researchers should recognise their general and specific obligations to Amgueddfa Cymru, as well as to their own employers or sponsors, where relevant. Unless explicitly stated otherwise, these will be the same obligations as apply to staff. In particular:

- They should be honest about their qualifications and expertise, about the limitations, advantages and disadvantages of their methods and data.
- They should not conceal personal or other factors that might affect the satisfactory conduct or completion of the proposed research project or contract.
- Any use of confidential information should be agreed by Amgueddfa Cymru and by other sponsors, partner organizations or employers as appropriate.
- Where research access to living persons is controlled by a national or local 'gatekeeper', researchers should not devolve their ethical responsibilities onto the gatekeeper. Researchers should adhere to the principles and procedures contained in this Code of Practice, as below (i.e. obtaining informed consent directly from research participants once access has been gained).

- All researchers, whether staff, students or external researchers, will abide by relevant policies and procedures.
- All rights, including IPR, relating to research projects that use the collections, intellectual assets and other resources will be assumed to belong to Amgueddfa Cymru, unless explicitly agreed in writing by the Head of Research, and relevant Head(s) of Department, before commencement of the project.

Obligations to external researchers on our part.

All parties should be careful to clarify, in advance of signing contracts or starting their research, matters relating to their professional domain.

- External researchers are entitled to request full disclosure of the sources of funds, personnel and aims of Amgueddfa Cymru where this is agreed to be essential for the purpose(s) of the research project and the dissemination of research results, and does not conflict with our policies, ethical responsibilities and commercial interests; in turn, we are entitled to the same disclosures on the part of the researchers and the organizations that support or endorse them.
- They are entitled to expect respect for their professional expertise and for the integrity of the data; in turn, we are entitled to the same respect.
- The Protocol should pay particular attention to matters such as: all parties' abilities to protect the rights and interests of research participants (both individuals and organizations), and their rights in data collected, in publications, IP and royalties. Please refer to Section 7 for discussion of IP.

1.3 Research on or about Amgueddfa Cymru and/or other organizations

In addition to the obligations specified above, all staff, students and external researchers who undertake research on or about Amgueddfa Cymru or other organizations, including partners and funders, as well as commercial and government partners, as a research topic or subject, either involving the whole organization or a part of it (e.g. one of our departments, museums or functions), should also address and resolve, ensuring our agreement, any actual or potential issues of harm, anonymity or confidentiality that may affect Amgueddfa Cymru or the other organizations as a whole or in part, over and above the effects on individual participants in the research.

This implies an extra duty of ethical care towards the organization, where it is itself being researched. This is because staff (paid or volunteers) participating in this kind of research have responsibilities to Amgueddfa Cymru and other organizations, and often hold confidential information relating to their role. It follows that the same duty of trust and care should govern the researcher's relationship with Amgueddfa Cymru. This is also the case where the research involves partner organizations with whom we have a relationship based on trust and care, including community partners (e.g. the Wallich, Oasis, Black History Wales Network) as well as funders and professional partners. While it is not possible to prescribe definitive courses of action in advance, given the variety of projects that can be undertaken, an awareness of the potential conflicts and complexities needs to be developed on all sides before the

research commences, and we must supply written approval before research commences.

- All researchers proposing to undertake research involving external organizations of all kinds will need the agreement of the Head of Research and the relevant Head(s) of Department.
- The Head of Research and Heads of Departments and/or partner organizations involved in the research will need to meet with the researcher(s) to discuss their approach and research questions, and obtain their approval, before any research commences.
- All parties must reflect together on the likely ethical implications of the research project, particularly concerning issues of staff/partner-organization confidentiality, anonymity and any risk of harm to Amgueddfa Cymru and/or partners.
- Agreement must be reached on how these issues will be handled, before the research commences. As the research process evolves, further regular reviews will likely be needed.
- Wherever possible, the research project should be co-designed and co-produced so that all parties, inside and outside Amgueddfa Cymru, are equally involved in shaping, designing and participating in it, and co-producing the findings and outputs.
- An ethical agreement, or Protocol, should be drawn up as specified in 1.2 above, which will cover the considerations outlined above along with any additional wording arrived at through agreement.

1.4 Sources of data in research

Traditionally, research in museums has been directed at object-focused enquiry and scholarship. Insofar as this remains the case, objects and specimens require an ethos of care, accessibility and appropriate interpretation. Research may also involve human remains, and these require particular ethical treatment. We also increasingly undertake research that involves living persons and organizations as participants (often called 'human subjects research'), in which additional ethical issues are involved. This Code of Practice covers all three sources of data: **objects and specimens, human remains and living persons**. In all research involving data collected from human beings, living or dead, additional approval for conducting research must be sought, as set out in the Ethical Review Procedure below.

1.4.1 Research with objects and specimens

All objects and specimens used and acquired for the purposes of research must be treated with due care and concern for their integrity, reflecting the Museums Association principle that museums should 'preserve collections as a tangible link between the past, present and future [and] balance the museum's role in safeguarding items for the benefit of future audiences with its obligation to optimise access for present audiences'.

All users of objects and specimens in the collections for research purposes must ensure that the research procedures used avoid causing harm or damage that would prejudice their future uses for researchers, audiences and other users. It is accepted

that this principle must reflect the balance needed between the duty to preserve objects and specimens intact and in their entirety as accessioned into the collections, and the need to conduct research that may involve an accepted sampling procedure. We have a suite of collections-related policies that govern the use and care of the collections (see below) and **all use of the collections for research purposes should follow these in full.**

1.4.2 Human remains research

Research involving human remains is governed by the Human Remains Policy (2016). This states that ‘human remains were once part of living people and accordingly we will care for them in a culturally respectful manner’. This policy is governed by the Human Tissue Act (2004⁴); it also reflects the guidelines contained in the document Guidance for the Care of Human Remains in Museums, published by the Department for Culture, Media and Sport (DCMS: 2005). All staff, students and external researchers using human remains must comply fully with the ethical principles outlined in that document. These are:

- Non-maleficence – doing no harm.
- Respect for diversity of belief – respect for diverse religious, spiritual and cultural beliefs and attitudes to remains; tolerance.
- Respect for the value of science – respect for the scientific value of human remains and for the benefits that scientific inquiry may produce for humanity.
- Solidarity – furthering humanity through co-operation and consensus in relation to human remains.
- Beneficence – *doing good, providing benefits to individuals, communities or the public in general.*

1.4.3 Research using data from or about living persons and organizations (‘human subjects’ or ‘research participants’) including Amgueddfa Cymru, partners or associated organizations

It is legally and ethically paramount that all data gained from or about living persons must be kept strictly confidential and securely stored. All personal data (i.e. data that enable a living person to be identified) must be anonymized. We require that research involving human participants, human materials or human data, as well as Amgueddfa Cymru and other organizations, be reviewed according to the Research Ethics Committee (REC) procedures, as below, unless the research:

- must be reviewed by a mandatory external ethics committee e.g. NHS research or research with live animals
- uses only information that is publicly and lawfully available e.g. census data, public government data and information held in public libraries.

We recognize the variety of research methodologies used in the disciplines represented and that ethical issues and practices also vary within methodological and disciplinary contexts. In all research disciplines there must be lawful grounds under the Data Protection Act (DPA 1998) for generating information that could identify living identifiable human participants, including organizations, in research

⁴ See <https://www.hta.gov.uk/policies/human-tissue-act-2004> (accessed 02/08/2017).

(termed '**personal data**'). If individuals and organizations are not identifiable, the DPA does not apply. Only where personal data are obtained using **valid and informed consent** will the grounds for collecting it be deemed lawful under the DPA. 'Valid consent' means it must be fully informed (i.e. the person giving consent fully understands what the research is about, what their data will be used for and how it will be used) and freely given (consent must be voluntary and not coerced either directly or indirectly). A definition of free and informed consent is provided in the annex to the Research Ethics Approval Form, which is available on the Intranet and reproduced in Annex 2.

Research with children and vulnerable adults, e.g. those who are vulnerable due to physical or mental disabilities, should be undertaken with care. Staff, students and external researchers should comply with the Mental Capacity Act 2005 in all cases where research participants may not have capacity or may lose capacity to provide valid consent during the study. Staff, students and external researchers should also be familiar with and adhere to our **Safeguarding Children and Vulnerable Adults Policy**. Where appropriate, staff, students and external researchers must comply with any additional obligations such as obtaining a Disclosure and Barring Service clearance. The Project Lead/ Principal Investigator has a responsibility to determine (with the Human Resources Department) whether these checks are required for all staff, students and external researchers under their supervision/management and then to ensure that these individuals are adequately vetted and trained.

1.5 Ethical review procedure for research

In addition to this Code of Practice, we have a formal procedure for obtaining **ethical consent to undertake research**. This procedure applies to research of all kinds, whether involving objects, specimens or human data. There are special ethical concerns arising in the use of human data and data relating to organizations; this refers to any information collected from human beings, living or dead, which may be preserved in numerical, physical, verbal or other forms. In any research involving living persons as research participants, the safety, rights and dignity of the participant must be the primary concern. It is a requirement of Research Organisations (ROs) that all publicly funded research involving living persons is reviewed by the RO's formally constituted research ethics committee.

- In all research, the Ethical Review Procedure must be followed. The person undertaking the research must complete the **Research Ethics Approval Form**, which is available on the Intranet and reproduced in Annex 2. The purpose of this form is to set out the processes the researcher will follow to ensure the research is conducted ethically and in compliance with all legal and Amgueddfa Cymru requirements.

The Research Ethics Committee (REC)

The requirements of research ethical review are designed to demonstrate that staff, students and external researchers have given due consideration to ethical issues surrounding the design of their research and its future conduct, and have been rigorous in addressing any issues - actual or potential - that may arise. This system will therefore enable staff, students and external researchers to apply for funding from those bodies that require such review and publication in journals that likewise

require evidence of ethical review. We will support and provide training for all research active staff, students and external researchers concerning ethical issues of research in a museum context.

The REC comprises the Head of Research, the director of a division or the Director General, two appropriately experienced members of the internal Research Board and an external member from a University with whom we have signed a MoU (at present this role is undertaken by a Cardiff University representative).

The completed Research Ethics Approval Forms are submitted for review to the REC, which will assess whether sufficient consideration has been given to the ethical implications of the research so that it will conform fully to the requirements of this Code of Practice. In Annex 3 there is a flow diagram that represents the process of obtaining ethical consent.

All ethics committees are dependent on the information supplied by the member of staff to inform their decision making. It is therefore the responsibility of the member of staff to ensure information provided to the REC is relevant, complete and accurate.

2. Existing Guidelines and Policies

Much of the research done by staff, students and external researchers will involve staff and external partners, and may make use of the collections. The involvement of staff and external partners is governed by a wide range of strategies and policies, including the Learning & Engagement Strategy, the Interpretation Strategy, human resources strategies, the Advocacy Strategy, the Communications & Marketing Strategy and the Ethical Fundraising Strategy. The use of objects and specimens from the collections is governed by the various collections management policies. These guide our practice as a museum accredited by Arts Council England (ACE), which sets nationally agreed standards for UK museums.

It is the responsibility of the researcher, whether they are staff, student or external researcher, to ensure that their research is consistent with these strategies and policies at all times.

The relevant strategies and policies relating to people and organizations are:

- The **Collections Management Policy** (2016, currently under revision), which sets out a clear framework for the management of the collections that enable us to meet the needs of our programmes, users and partners.
- The **Collections Development Policy** (2016, currently under revision), which details the ambition for collecting and the approaches that will be adopted to collect new items and to review the existing collections over the coming years.
- The **Policy on Collections Access and Use** (2016, currently under revision), which sets out how we will make the collections accessible and useable to all within the reasonable constraints of resources, conservation and security.
- The **Collections Care and Conservation Policy** (2016), which demonstrates how we will care for the collections using a combination of preventive and

interventive conservation, aimed at ensuring preservation and maximizing access.

- The **Collections Information Policy** (2016), which sets out how we will maintain professional standards in documentation and collections information and strengthen the security and accountability of the collections.
- The **Human Remains Policy** (2016), which sets out how we will sensitively and respectfully acquire, care for and make accessible the human remains in our collections. This policy is governed by the Human Tissue Act (2004⁵); it also reflects the guidelines contained in the document *Guidance for the Care of Human Remains in Museums*, published by the Department for Culture, Media and Sport (DCMS: 2005).

Please ensure you have read and understand these and all other relevant policies, and that all research you do conforms to them in full.

Please also read the **Museums Association (MA) Code of Ethics**⁶. It sets out the key ethical principles and supporting actions staff need to ensure an ethical approach to their work and supports museums in recognising and resolving ethical issues and conflicts. It has three categories of ethical principles, each with a number of specific guidelines:

- public engagement and public benefit
- stewardship of collections
- individual and institutional integrity.

These three principles are designed to ensure that audiences are fully and ethically engaged with the work of museums, that collections are properly maintained and that museums act in the public interest in all areas of their work.

The MA Code of Ethics covers all aspects of museums' work, not just research⁷. As such it should be read and followed by all staff, not just those undertaking research. The principles and procedures set out here complement and amplify the three MA principles above by ensuring that the commitments to integrity and ethics in the research element of our work are set out in a formal and detailed manner, and that they comply with accepted standards in the wider UK research community.

Researchers should also ensure that their work meets the requirements of the International Council of Museums (ICOM) Code of Ethics.

⁵ See <https://www.hta.gov.uk/policies/human-tissue-act-2004> (accessed 09/10/2018).

⁶ See <https://www.museumsassociation.org/download?id=1155827> (accessed 09/10/2018).

⁷ In relation to research, the MA Code of Ethics states only that 'all information and research presented or generated by the museum must be accurate and steps [must be taken] to minimise or balance bias in research undertaken by the museum'.

3. The Objectives of Research

The purpose and objectives of our research are set out in our Research Strategy (2018). The key driver of our research is our vision – Inspiring People, Changing Lives. Research inspires people to learn about Wales in a way that is exciting, relevant and informed by the best possible evidence. It enables us to play an active and visible role in illuminating and communicating Wales’s place in the world, sharing its rich culture and diverse environments in a participatory and inclusive way, and – ultimately – in changing lives.

Research achieves this by deepening and broadening knowledge and understanding by responsible, professional and/or expert means, and by disseminating results through publication, consultancy, exhibitions/public programmes and conservation of our heritage assets.

Research should also address the following objectives:

- The training of staff, students and external researchers in appropriate methods and professional standards of research.
- The promotion of the public benefits of research and its benefits to Amgueddfa Cymru and staff.
- The securing of research impact for the public good, in all the diversity that the word ‘public’ implies.

4. Cross-team Working

Amgueddfa Cymru is a diverse, interdisciplinary community whose staff in many ways depend on each other and who have a variety of duties to perform, besides research. This means it is essential that trustful, respectful and mutually supportive relations pertain across all teams, departments and divisions. Staff need to consider how the research they do, the methods they use and the dissemination they undertake may have impacts on other individuals or teams across research groups, departments and divisions or on Amgueddfa Cymru as a whole.

5. Integrity in Research: Core Principles

These principles reflect the standards set out in the UK Concordat to Support Research Integrity (2012⁸), which states that ‘All those engaged with research have a duty to consider how the work they undertake, host or support impacts on the research community and on wider society’.

⁸ <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/research-concordat.aspx> (accessed 10/10/2018).

5.1 Excellence

Staff, students and external researchers should endeavour to achieve excellence in the research they do and strive to produce and disseminate work of the highest quality. The following principles support this goal.

5.2 Honesty and Integrity

Maintaining honesty and integrity is the basis for high professional standards in research. Staff, students and external researchers must be honest both in their own actions and in their responses to the actions of others. This includes honesty in:

- the presentation of research objectives, purposes and results
- reporting on research methods and procedures
- generating and analysing data and information
- using and acknowledging the work of others
- communicating valid interpretations and ensuring claims are based on valid research findings.

Staff, students and external researchers must not take part in nor conceal misconduct and must report potential incidences of misconduct in the required manner. Procedures for dealing with allegations of misconduct in research can be found at Annex 4.

5.3 Openness

Research methods, data and results must enable others to scrutinize, assess and debate them. Subject to considerations of confidentiality and protection of intellectual property rights, staff, students and external researchers must ensure openness in their work and encourage the free exchange of ideas and information. Staff, students and external researchers should ensure transparency in:

- declaring conflicts of interest
- reporting research data collection methods accurately and fully
- analysing and interpreting data with honesty and integrity
- generating approved research outputs in good time
- disseminating research results widely, including sharing negative results as appropriate
- presenting their work openly to other staff, students and external researchers, external stakeholders and to the public.

We support the UKRI Concordat on open research outputs and data⁹, which states that all publicly funded research outputs and data should be made openly available for use by others wherever possible in a manner consistent with relevant legal, ethical, disciplinary and regulatory frameworks and norms, and with due regard to the costs involved.

⁹ The Concordat can be found here <https://www.ukri.org/files/legacy/documents/concordatonopenresearchdata-pdf/> (accessed 09/10/2018).

5.4 Accountability and Responsibility

The individual staff member, student or external researcher must accept primary responsibility for ensuring the integrity of any research carried out. They are responsible for ensuring that it conforms to all relevant professional standards, policies and guidelines, the legal, ethical and policy requirements that regulate their specific field and the principles outlined in this document. Please refer to Annex 5 for links to further information in these areas.

All staff, students and external researchers must take steps to ensure all research conforms to all strategies, policies and procedures, as well as any agreements, terms and conditions related to the project. This includes making sure that:

- the research programme is undertaken as set out in the original proposal
- financial resources are only used for the purposes of the research as set out in the original proposal
- reports are accurate and produced on time
- conditions regarding publication, other outputs, data management and intellectual property ownership are met and followed.

Staff, students and external researchers should also follow the requirements and guidance of any professional bodies in their field of research, such as the Museums Association, and external funders.

5.5 Rigour

A rigorous approach to research is part of the professional integrity to which all staff, students and external researchers must adhere, following prevailing disciplinary norms and standards. Staff, students and external researchers must pay particular attention to rigour when:

- generating data and choosing and enacting appropriate methods
- adhering to agreed protocols, e.g. with third parties
- producing analysis, interpretations and conclusions from the research
- verifying results before publication or other means of dissemination
- communicating the results in a style and to a standard that is consistent with recognised and accepted outputs in the museum context and/or in external publications, whichever applies.

5.6 Care and respect

All staff, students and external researchers must exercise a duty of care and respect to all participants in and subjects of research, including humans, animals, the environment, scientific specimens and cultural objects. Staff, students and external researchers should seek to resolve any concerns relating to the dignity, rights, safety and well-being of all people and organizations involved in their research. Those engaged with research must also demonstrate care and respect for the proper stewardship of research and scholarship for future generations.

All matters of equality and diversity must be fully addressed and taken care of throughout the research process (for further details of this and the requirements of the Equality Act 2010, see Section 6.4).

6. Commitments for Research

6.1 Leadership, line management and supervision

The Principal Investigator of a research project or the staff member's line manager, or, in the case of students, the student's supervisor, is responsible for ensuring that all staff, students and external researchers under their supervision/management understand and comply with their responsibilities under this Code of Practice.

This includes ensuring that:

- the dignity, rights, welfare and safety of any research participants and organizations is maintained
- research is conducted in accordance with policies and guidelines (including all relevant collections policies and procedures, health and safety procedures, diversity policies)
- approval is obtained from the Research Ethics Committee, where relevant (as above), before a new research project commences
- those under their supervision fully understand and follow any funder policies, relevant legislation, policies and guidelines, and discipline-specific best practice concerning research data and records management
- the study complies with all relevant legal and ethical requirements set out in this Code of Practice and in UK legislation
- they have a thorough awareness of equality and diversity requirements and that this is shared with those under their leadership
- each research team member is qualified and experienced to fulfil their role including ensuring adequate supervision, support and training has been undertaken and that staff, students and external researchers carrying out research have undertaken appropriate checks e.g. Disclosure and Barring Service checks
- there are procedures set out to generate, store, manage and retain secure data and, subject to legal, ethical and commercial constraints, a Data Management Plan is produced to enable access to such data when the research project is finished
- reports on research progress and outcomes are produced on time and to an acceptable standard
- research findings are disseminated on time and communicated as appropriate back to participants; results are open to scrutiny through standard academic and professional channels and research data is appropriately categorized and stored to enable access
- project finances and IP are governed by suitable arrangements for their proper management
- the researcher is responsible for identifying and preventing misconduct by taking responsibility for all aspects of research integrity which relate to any publication
- research data continues to be managed appropriately if a researcher in the project team or the student being supervised leaves Amgueddfa Cymru
- research collaborations with Amgueddfa Cymru and external organizations are preceded by formal agreements/protocols regarding data ownership prior to starting the project.

6.2 Research data and records

6.2.1 What are research data in a museum context?

Research data vary according to each discipline and its distinctive approaches. They may be quantitative or qualitative. They include all sources of information generated for the purposes of a defined piece of research. This may include objects, specimens, archaeological finds and remains, recorded observations (of people, environments, sites, buildings etc.), numerical data, interviews with living persons, samples of physical materials, survey data, physical measurements, drawings, photographs etc.

6.2.2 Research data and records management

Good research practice requires effective management of research data and records. Staff, students and external researchers must ensure they understand and adhere to any funder policies, relevant legislation, policies and guidelines and discipline-specific best practice concerning research data and records management.

Staff, students and external researchers must ensure the accurate and detailed recording, quality control and management of their research data. Before commencing a project, they must set out (e.g. in a Data Management Plan) how they will actively manage their research data and records in an appropriate form, throughout the duration of the research, to ensure data stay secure, hold integrity and authenticity and remain accessible throughout the designated period of data retention.

Access to the research data should also be provided and planned for. It is good practice (and often required by funders, e.g. UKRI) that these provisions should be set out in a formally documented Data Management Plan (DMP). This should reflect a considered assessment of the risks relating to confidentiality, integrity, availability and legal/ethical compliance with respect to their data.

We will, if able and willing to make this commitment before the commencement of the research project, provide an appropriate quota of secure electronic storage to support staff, students and external researchers. If additional storage is needed, those undertaking the research should ensure this is available before the project commences.

6.2.3 Retention of data

Research data must be retained in line with data retention requirements as set out in Annex 6, and any retention periods specified by the funding body.

Access to data, data preservation and documentation

- When any publicly funded project ends, subject to any legal, contractual and ethical considerations, researchers should ensure they make their data freely accessible in a timely and responsible way.
- Original research data that supports research findings or may have future research uses shall be deposited for preservation at Amgueddfa Cymru and,

in addition, where required by funding bodies, copies should be deposited in the appropriate public archives. Research data shall be deposited with the appropriate metadata and documentation to enable them to be accurately identified by others regarding their origin, content and context.

- Where it is proposed that data might be deposited externally, approval for this should not be given to others without obtaining our permission in advance, nor restricting our right to make the data openly available for re-use.

Leaving Amgueddfa Cymru

- Staff and external researchers must ensure, before approval of the research project, and on leaving, that appropriate provisions are made within the relevant department for the continued retention, storage and, where applicable, provision of access to their research data, records or research samples (human or otherwise). The Head of Department will take on responsibility for the research data and records.
- Students leaving must ensure they retain, store and, where appropriate, provide access to their original research data, samples and records. The student's supervisor and their Head(s) of Department will take on responsibility for research data and records deposited at Amgueddfa Cymru.
- Students must obtain their supervisor's advice and consent (if the supervisor is external then they should also obtain the consent in advance of the Head of Research and that of the relevant Head(s) of Department) before removing original research data and records. Where the records include personal data, the Data Protection Officer should be consulted before any originals or copies are taken away (for contact details see Annex 7).

6.2.4 Data Protection Act 1998

- Where staff, students or external researchers generate 'personal data' they must comply with the terms of the Data Protection Act 1998. 'Personal data' are information from which a living person can be identified.
- The Act requires all researchers to have proper grounds to enable them to use personal data for research purposes and it sets out principles that must be applied to the use, storage and disclosure of that personal data (storage of research data is covered in Section 6.2.2).
- The Act defines a special category of personal data as 'sensitive'. This includes the state of individuals' mental or physical health, their religious, philosophical or political beliefs, trade union membership, their criminal record, their racial or ethnic origin and details of their sexual life. The lawful use of this data is further restricted under the Act.
- A guidance note for staff, students and external researchers explaining the requirements of the Data Protection Act in relation to research (including valid consent and who is competent to give valid consent) will be made available (refer to Annex 8).

6.3 Research outputs

The Research Strategy sets out the requirements that all approved research projects must result in approved research outputs, wherever possible, taking into account any

confidentiality and intellectual property requirements, and not remain hidden in the organization.

- These outputs must be produced in a manner that reflects the research accurately and without selection that could be misleading.
- Subject to the advance approval of the Head of Research and relevant Head(s) of Department, and provided this dissemination is consistent with policies and procedures, research results should be disseminated widely in the approved forms, thereby allowing a diversity of audiences and communities to view, challenge and develop research results. Where the research is reported in written publications these should contain enough information to allow other staff, students and external researchers to replicate the methods originally used.
- Research outputs are valued whether they take the form of written publications or other media, including in public exhibitions. In addition to non-published outputs, original research should also be published wherever possible, considering conditions specified by the funding body and protection of any intellectual property or confidential information (refer to Section 7).
- Where possible, and where commensurate with the career stage of the individual carrying out the research, published research output should first be approved by the Head of Research and the relevant Head(s) of Department, and peer reviewed through accepted scientific and professional channels¹⁰.
- Approved published research by staff should always include Amgueddfa Cymru's name in the author address field. In most cases supporting data should be made available and published research should include a short statement outlining how and on what terms the data may be accessed.
- Researchers should not publish more than one paper based on the same set of data (a practice known as 'salami slicing'), except where there are full and thorough references and acknowledgements made to the earlier paper(s). If you submit similar work to more than one publisher each publisher must be made aware of this at the time of submission.
- We are currently exploring avenues for enabling staff to deposit the full text of the final, peer-reviewed, author's version ('post-print') of their journal articles and published conference proceedings in an institutional repository, which usually will be no later than three months after publication. Where publishers' copyright permissions allow, and there are no confidentiality or commercial constraints, these versions will be made Open Access, in accordance with the requirements of publicly funded research.

Definition of an 'author'

Authorship is the principal means of apportioning credit for research findings. While there is no universally accepted definition of an author, it is standard academic good practice only to list an individual as an author if they have made a **substantial intellectual contribution** to the output's creation and agree to be accountable for the findings, integrity and ethics of the research being reported.

¹⁰ An exception to the standard rule of first publishing through a recognized channel would be when serious public health or safety issues are involved. The safety of the general public would take precedence in these instances.

An author is therefore someone who has had a major input into creating and validating the research output in question. This involves:

1. substantially contributing to the project and its research design OR the analysis/interpretation of research data, AND
2. drafting the publication, or revising the content to a critical extent such that a substantial contribution to its worth is made AND
3. approving the final version of the output to be published.

All those who meet these criteria should be listed as authors. All those who have substantially contributed to the project as in 1. should also be given the chance to be involved in 2. and 3., i.e. in the drafting and revising of the content and the approval of the final version.

In addition, it should be noted that:

- Helping a project to be funded, assisting with the generation of data or supervising a research team are not enough to earn authorship credit. Such contributions should be acknowledged in the text, but not as authors. The practice of honorary authorship is not acceptable.
- All authors' individual contributions to the output should be identifiable as theirs so that authors can be responsible for the integrity of their contribution.
- All authors should collectively be responsible for the findings of the research: any person listed as a co-author on a publication is deemed to support all aspects of that output.
- In every aspect of research, authors must acknowledge the roles and contributions of collaborators and other supporters of the work who do not qualify as authors. This extends to attributing recognition to the body funding the project, if it is appropriate to do so, which is often a requirement of funding.
- Failure to properly acknowledge all direct or indirect contributions made by other persons, including data and samples from third parties, is unprofessional conduct and could amount to academic research misconduct.

6.4 Equality and diversity

Staff, students and external researchers undertaking research at Amgueddfa Cymru must recognise the specific duties of the Welsh Language Act 1993, the Welsh Language (Wales) Measure 2011 and the Equality Act 2010, which require us as a public body to promote equality and diversity, eliminate unlawful discrimination and strive to ensure that no one is unlawfully disadvantaged by the way we carry out our functions. Staff, students and external researchers must abide by the Equality Act and policies and guidance on equality and diversity in every aspect of their work.

In addition to the above, UKRI expect those in receipt of Research Council funding to:

- promote and lead cultural change in relation to equality and diversity
- engage staff, students and external researchers at all levels with improving the promotion of equality and diversity
- ensure all members of the research workforce are trained and supported to address disincentives and indirect obstacles to recruitment, retention and progression in research careers

- provide evidence of ways in which equality and diversity issues are managed at both an institutional and department level.

Furthermore, those in leadership positions must maintain a thorough awareness of equality and diversity requirements and share that knowledge with those under their leadership.

6.5 Misconduct in research

Researchers are expected to understand that the following constitute misconduct and that penalties will be incurred in accordance with disciplinary procedures and ethical guidelines:

- Plagiarism, deception, piracy of others' ideas without due acknowledgement, or the fabrication or falsification of results, including omission from analysis and publication of inconvenient data.
- Misrepresentation of research: this includes:
 - misrepresentation of data, for example suppression of relevant findings and/or data, or knowingly, recklessly or by gross negligence, presenting a flawed interpretation of data
 - undisclosed duplication of publication, including undisclosed duplicate submission of manuscripts for publication
 - misrepresentation of interests, including failure to declare material interests either of the researcher or of the funders of the research
 - misrepresentation of qualifications and/or experience, including claiming or implying qualifications or experience which are not held
 - misrepresentation of involvement, such as inappropriate claims to authorship and/or attribution of work where there has been no significant contribution, or the denial of authorship where an author has made a significant contribution
 - other breaches of this Code of Practice.
- Conflicts of interest that remain undisclosed. These must be disclosed in writing, as in Section 8 below, and accompany any new research proposal submitted for approval to the Research Board, who will decide which action to recommend to the Senior Management Team. Such conflicts may include legal, ethical, moral, financial, personal, academic or of another nature.

Researchers (whether staff, students or external researchers) are required to report cases of suspected misconduct to the Head of Research, and to do so in a responsible and appropriate manner. All reports will be treated in strict confidence, in accordance with our Whistleblowing Policy. General guidance (for researchers at all levels) on avoidance of plagiarism and academic dishonesty is available from the UKRI website and also from the Head of Research.

7. Intellectual Property

Intellectual property (IP) is the product of thought, creativity and intellectual effort. In the course of their research or consultancy staff, students and external researchers often generate IP (e.g. technical discoveries and new methods, original drawings and designs, experimental outcomes, pieces of prose and artworks). We value the creativity of staff, students and external researchers undertaking research and encourage them to take an active role in their professions through activities such as conferences and academic publishing. This section does not seek to discourage such activity but to create a transparent and equitable framework within which it can take place.

Commercialization of IP

Funding bodies expect ROs to commercialise IP arising from research they have funded. It is important therefore that IP generated by Amgueddfa Cymru, or using Amgueddfa Cymru resources, is commercially exploited, where appropriate, for the direct benefit of Amgueddfa Cymru, in order to:

- propagate research findings and help realise their fullest value
- aid local and national economic prosperity
- generate additional income for Amgueddfa Cymru and staff, students and external researchers
- gain prestige for Amgueddfa Cymru.

Most IP generated in the course of research will not have an immediate or obvious commercial value. However, it is important to consider how commercial value might be created further down the line by others who have access to the research, although there is never any guarantee of a financial return from the commercialisation of IP. At the earliest opportunity staff, students and external researchers should bring to the attention of the Head of Research any IP that may have potential commercial value.

7.1 Ownership of IP and other rights

- Amgueddfa Cymru owns extensive rights including digital and Intellectual Property Rights (IPR). Unless we have explicitly, and in writing, agreed before the commencement of the research to permit the researcher to use our Intellectual Property or other rights, any research conducted on our work, or using our resources, is the property of Amgueddfa Cymru. This applies to research by staff, students and external researchers. Intellectual Property Rights generated through research activities conducted by staff during employment at Amgueddfa Cymru and/or using Amgueddfa Cymru resources belong to Amgueddfa Cymru. Copyright is one type of IPR. For publication purposes, we will normally allow a member of staff to publish any work they have authored during employment at Amgueddfa Cymru and/or using Amgueddfa Cymru resources, in an academic, non-commercial publication (one for which no charge is made), provided we, through the Head of Research, give written approval in advance. We will, however, retain the rights to such intellectual property. The same principle will apply to use of any

research undertaken by students and external researchers using our resources, for which we hold rights.

- For non-academic publications by staff that do/might have a commercial value, if the output is published by an external publisher, we will retain the copyright and IPR. The external publisher has copyright of the format of the publication. All such arrangements must be approved, before agreement to publish, by the Publishing Panel.
- Staff creating research jointly with third parties will ensure the IPR is assigned to Amgueddfa Cymru in a written agreement. Where this is not possible, the written approval of the Commercial Director will be required, and the staff member must ensure that a licence is agreed for us to re-use the research results for all purposes.
- Undergraduate students, postgraduate students and volunteers on placement are regarded as having the same status for these purposes as staff and, in these circumstances, we will own the IP for the work they conducted, other than that for which they are solely responsible and was created without use of our resources.
- If a member of staff has contributed **centrally** to the student's results (e.g. bringing their own original analysis and results to the project), rather than simply playing the standard supervisory role of facilitating access and giving advice and guidance, the IP will be jointly owned (according to the appropriate apportionment e.g. 80%-20%).
- The copyright to a student's thesis, other than any elements for which the rights are owned by us, will always belong to the student.
- If an external researcher is paid or contracted by, or seconded to, Amgueddfa Cymru, the research they undertake on Amgueddfa Cymru, the collections or our work, belongs to Amgueddfa Cymru.
- If an external researcher is employed by a university or other employer and has funding of their own, and is not paid or contracted by, or seconded to Amgueddfa Cymru to do the research, the IP belongs to their university or employer (except where member of staff has contributed centrally to the results, as above, or where their work uses Amgueddfa Cymru's IP and/or other rights). In the latter case, the IP will be jointly owned by Amgueddfa Cymru and the researcher's employer and an agreement will be drawn up, before the research starts between Amgueddfa Cymru and the employer to grant Amgueddfa Cymru license to use the results generated by the project for non-commercial purposes. Any subsequent commercialisation of the results by Amgueddfa Cymru and/or the researcher's employer would need to be agreed jointly by Amgueddfa Cymru and the researcher's employer.
- According to law, all data generated by employees during the course of their employment belongs to their employer, so the data or IP created by staff

(including publications) are still retained by Amgueddfa Cymru, even if the author moves to another institution.

- If an external researcher employed by a university is commissioned/contracted to do a project and their salary and/or expenses are paid in full or in part by Amgueddfa Cymru (e.g. from core budgets, external funds etc.), the IP they create belongs to Amgueddfa Cymru.

7.2 Protection of IP

Staff, students and external researchers should safeguard their own interests, those of Amgueddfa Cymru and those of any funder or collaborating body in relation to IP. In most countries of the world, prior disclosure will invalidate any patent application and harm potential commercial benefits. Staff, students and external researchers must not, therefore, disclose an idea to any party not employed by Amgueddfa Cymru, either verbally or in writing, until steps have been taken to protect the IP. After obtaining the appropriate protection, the idea or results may then be published in the normal way.

8. Conflicts of Interest

A conflict of interest is a conflict between the private interests and the official responsibilities of a person in a position of trust. The initial responsibility for managing conflicts of interest rests with the individual member of staff, students and external researchers. Staff, students and external researchers should recognise that conflicts of interest may have a negative impact on research.

All conflicts of interest, whether actual or potential, should be identified, declared and addressed as soon as they become apparent. Responsibility for identifying and declaring conflicts of interest lies with all individuals involved in research. Staff, students and external researchers should comply with the policy for addressing conflicts of interest, as well as any external requirements relating to conflicts of interest.

Conflicts of interest can also arise in relation to an organization that is conducting research with, in or at Amgueddfa Cymru. It is therefore important to recognize that conflicts of interest may not be confined to an individual, personal level.

Disclosure of all cases of conflict of interest must be made, in writing, to the Head of Research (copied to the Head(s) of the Department(s) involved). The response of the REC will be communicated to the researcher in writing and recorded on file. The individual concerned will then comply with this written direction.

9. Anti-Bribery and Anti-Corruption

We have a zero-tolerance policy towards any research-related behaviour that may constitute bribery and corruption. Amgueddfa Cymru, our staff, students and external researchers are committed to acting professionally, fairly and with integrity, ensuring that research is conducted in an open, ethical and transparent manner.

10. Concluding Statement

This Code of Practice aims to enhance the professional, open and honest research culture already apparent within Amgueddfa Cymru, while not infringing on the fundamental pursuit of greater knowledge and understanding.

All external standards applicable to the research and any relevant stakeholder requirements must be complied with as well as common law and statutory obligations.

Acknowledgements

We gratefully acknowledge the following organizations in producing aspects of this Code of Practice:

Cardiff University	Research Integrity and Governance Code of Practice
UKRI	UKRI Policy and Code of Conduct on the Governance of Good Research Conduct
NISCHR	Research Governance Framework for Health and Social Care in Wales
UK Research Integrity Office	Code of Practice for Research: Promoting Good Practice and Preventing Misconduct
Universities UK	The Concordat to Support Research Integrity