

Oral History's Design: A creative collaboration. Maintaining and reusing oral history recordings: The National Trust's Seaton Delaval Hall case study

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Abstract

The maintenance of oral histories, specifically maintaining access to archived oral histories, has largely been overlooked as a method to improve their reuse. While digital technologies have facilitated wider access to oral histories, the complexities of sustaining such access over time have been underestimated within the oral history community. My study frames maintaining access as foundational to the secondary use of oral histories and presents it as a 'wicked problem' - a design term meaning a multifaceted dynamic problem with no definitive solution. Through this critical commentary and my portfolio of practice, I explore how to design and update structures to enable long-term access by focussing on maintenance, using Seaton Delaval Hall, a National Trust property, as a case study. My design-led practice consisted of an action research strategy where I shared explanatory and exploratory design artefacts with the staff and volunteers at Seaton Delaval Hall, the wider National Trust, the British Library, and Archives at National Centre for Biological Sciences in Bangaluru to gain continuous feedback on my conception of the 'wicked problem' and the opportunities for positive intervention. This iterative journey revealed maintaining access to oral histories in a world of rapid technological and societal change is a complicated and deeply undervalued enterprise. My concluding outputs emphasise how maintaining access to oral histories will always be 'wicked'. Accepting this when designing or updating a structure to access oral histories will encourage the development of a space within the structure for those working within to reflexively react to change.

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And finally, to my cat Pluk you are the spawn of Satan and I hate you. Please never leave me.

How to read this PhD by Practice

This document is the text accompaniment to the website:

blogs.ncl.ac.uk/hjameslouwerse2. This website contains the outputs of this research project including:

- An annotated Portfolio of Practice
- A Critical Commentary
- The catalogue for the archive of this project - OHD_Archive
- The online version of the OHD_Archive

The website showcases my portfolio of practice alongside my critical commentary. There is no required reading order for either. Likewise, the portfolio itself is divided into sections that can be explored in any sequence.

Each section of the portfolio features a collection of various design artefacts with my annotations. It is essential to read all annotations, which are presented in grey boxes. Each grey box has a code reference to help those who are reading the text only print version of this project alongside this website

Reading all the information in the design artefacts or listening to all the audio is not mandatory. The reader may engage with the material at their discretion. Some documents have been summarised using AI chatbots as indicated. Within these summaries, certain text has been highlighted to emphasise key points.

If the reader wishes to venture further into the design artefacts they are welcome to explore the OHD_Archive online or the catalogue.

There will be spelling and grammatical errors in some of the design artefacts included in the OHD_Archive, which can no longer be altered due the file type.

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Portfolio of Practice (text only)

Portfolio of Practice

pop. 001

I am going to start by repeating Susan Leigh Star's call in 'The Ethnography of Infrastructure' to study 'boring things.'¹

pop. 002

At the start of my research I attended many talks, seminars, and lectures that touched upon this mystical mysterious thing – "the archive."² I read Derrida's *Archive Fever* and other people's commentary of the text.³ I drew how it felt to be in an archive and compared the experience to playing open world video games.⁴ I ran a workshop where the participants first noted all the words they associated with "the archive." They were then challenged to create an "anti-archive" based on these associations.⁵

pop. 003

I explored the dimensions, symbols, and feelings of "the archive," because the topic of my study was the reuse of archived oral history. Oral history is, as Lynn Abrams writes, 'a creative, interactive methodology that forces us to get to grips with many layers of meaning and interpretation contained within people's memories.'⁶ The multiple dimensions and narratives found in oral histories make them a challenge to archive and to navigate, and therefore it has been argued that oral histories are not reused once archived.⁷ This is not completely true, as there are popular writers who have used archived oral histories as a source for bestselling books on popular historical events, for example the various wars, or particular periods of popular

¹ Susan Leigh Star, 'The Ethnography of Infrastructure,' *American Behavioral Scientist* 43, no.3 (1999): 377.

² James Louwerse, H., Feb 2, 2021, Texts, Images and Sounds Seminars Summary. OHD_Archive. [OHD_BLG_0075](#).

³ Including Carol Steedman, *Dust*, (Manchester University Press, 2001).

⁴ James Louwerse, H., Feb 4, 2021, Archives are adventures. OHD_Archive. [OHD_BLG_0086](#); James Louwerse, H., Oct, 2021, No Man's Land. OHD_Archive. [OHD_RPT_0134](#); James Louwerse, H., Jul 14, 2021, Archives as video games, HJL's Scrivener. OHD_NOT_0200.

⁵ James Louwerse, H., Jun 14, 2021, Break the Archive. OHD_Archive. [OHD_WKS_0131](#).

⁶ Lynn Abrams, *Oral History Theory*, (Routledge, 2016), 18.

⁷ Michael Frisch, 'Three Dimensions and More: Oral History Beyond the Paradoxes of Method,' in *Handbook of Emergent Methods*, ed. Sharlene Nagy Hesser-Biber and Patricia Leavy (The Guilford Press, 2010), 223.

music.⁸ Nevertheless, navigating and searching oral history recordings remains challenging and time consuming. The initial aim of this project was to seek a solution to this problem of oral history; to design something that would make reusing oral histories easier - something that would embody all the positive feelings I had of the archive.

pop. 004

However, the direction of the project changed when I started to enter the world of archives and was confronted with the reality of preserving oral histories. I talked to multiple archivists, one of whom told me she was currently spending more time managing leaks in the ageing building's roof than archiving. I also completed three placements which granted me access to the day-to-day of a heritage site and two archives. The heritage site was Seaton Delaval Hall in Northumberland, England. The Hall belongs to the National Trust, Europe's biggest conservation charity, and was also the location for my bigger oral history project.⁹ I worked in the Archives at National Centre for Biological Science (NCBS) in Bengaluru, India for two months,¹⁰ and the British Library for one intensive month.¹¹ Throughout my project and placements I did boring work, but work that was essential, crucial to its respective organisations, and, eventually, became the central focus of this portfolio.

pop. 005

I ended up not studying "the archive," rather I studied archives, museums, and heritage sites which collect and maintain our history, and above all maintain access to history. I studied the 'boring things.' The study of 'boring things,' in my case *the maintenance of access to oral histories*, reveals 'essential aspects of aesthetics, justice, and change,' which stem from the structure of an archive or an archive-like organisation; its standards, forms, and filing systems.¹² My study of the 'boring' structures, which support access to oral histories, took the form of research through design (RtD), one of the deployments of design that Christopher Frayling discussed

⁸ See the *Forgotten Voices of...* series in this Waterstones search [result](#), accessed Jan 3, 2025.

⁹ 'Seaton Delaval Hall,' National Trust, n.d., accessed Jan 3, 2025, <https://www.nationaltrust.org.uk/visit/north-east/seaton-delaval-hall>.

¹⁰ 'Archives at NCBS,' Archives at NCBS, n.d., accessed Jan 3, 2025, <https://archives.ncbs.res.in/>.

¹¹ 'Sound and Vision Blog,' British Library Blogs, n.d., accessed Jan 3, 2025, <https://blogs.bl.uk/sound-and-vision/>.

¹² Star, 'The Ethnography of Infrastructure,' 379.

in his seminal paper 'Research in Art and Design.'¹³ I used design methods to investigate the challenges of oral history access and its maintenance, specifically adopting an action research (AR) approach. I created design artefacts to either explore or explain the structures and used them as probes in conversations with people working within these structures, including the staff and volunteers of my placement organisations. These conversations were crucial in revealing the invisible aspects of maintenance.

pop. 006

Maintenance is often invisible for several reasons. Its output is invisible because it keeps a status quo. As Stewart Brand writes in *How buildings learn: what happens after they're built*, 'the only satisfaction they [maintenance people] can get from their work is to do it well. The measure of success in their labours is that the result is invisible, unnoticed. Thanks to them, everything is the same as it ever was.'¹⁴ The workers and their systems are invisible because they are removed from public view: wires and pipes are hidden above and underground,¹⁵ and every worker works outside of office hours, creating what Star and Strauss refer to as a 'non-person.'¹⁶ As Star explains, maintenance can become invisible even to those performing it, because the tasks do not need to be 'reinvented each time or assembled for each task,' resulting in them becoming strangely passive activities which are transparent and 'naturalised' as part of the structure, ultimately taken for granted.¹⁷

pop. 007

By completing my three placements alongside my bigger oral history project with the Hall I was able to get a closer look at maintenance in these organisations. I became

¹³ Christopher Frayling, 'Research in art and design,' *Royal College of Art Research Papers* 1, no. 1 (1993/4).

¹⁴ Stewart Brand, *How buildings learn: what happens after they're built*, (Penguin, 1995), 130.

¹⁵ The Pompidou Centre is of course an example of the infrastructure not being hidden. Although it is important to note the building was controversial at the time and the architects, Richard Rogers and Renzo Piano, were not expecting they would win the design competition and so 'worked with complete freedom.' See William Cook, 'A very Parisian scandal: The Pompidou Centre at 40,' *BBC Arts*, Feb 8, 2017, accessed Jan 22, 2025, <https://www.bbc.co.uk/programmes/articles/kTIZ2DLm4NCVjkdzXnFHIW/a-very-parisian-scandal-the-pompidou-centre-at-40>.

¹⁶ Susan Leigh Star, and Anselm Strauss, 'Layers of silence, arenas of voice: The ecology of visible and invisible work,' *Computer supported cooperative work (CSCW)* 8, no. 1 (1999): 15.

¹⁷ Star, 'The Ethnography of Infrastructure,' 381.

acquainted with those who maintain, enabling me to slowly map out the requirements for maintaining access to oral histories and see what hinders this maintenance. For my placement at Seaton Delaval Hall I designed the entire system for an on-site Research Room,¹⁸ but I also would sometimes have to manage the car park or do room guiding because they were short on volunteers. I audited the National Trust's 1700 items strong sound collection at the British Library, looking for copyright forms and noting their absence or presence in a spreadsheet.¹⁹ I learnt as much as I could about copyright and data protection to write a takedown policy as part of my placement with Archives at NCBS.²⁰ I also spent three years collecting oral history testimonies for Seaton Delaval Hall, summarising them and preparing them for archiving, including creating a copyright agreement specifically for this project.²¹ The work I carried out during these placements, the discussions I had with my colleagues, and my overall experience of recording oral history make up this portfolio of practice.

pop. 008

This portfolio is a product of my thinking. In 'Wicked Problems in Design Thinking' Richard Buchanan says 'designers conceive their subject matter in two ways on two levels: general and particular.'²² These two levels of thinking are present in the portfolio as I consider it a 'domain of design,' to borrow a term from Bill Gaver. A *domain of design* is a space where the designer (myself) presents their general philosophy of a particular situation, issue, or problem, by bringing together their

¹⁸ James Louwerse, H., Sep 8, 2022, Research Room Donation Flowchart. OHD_Archive. [OHD_DSN_0158](#); James Louwerse, H., Oct 31, 2022, Research Room Acquisition Copyright form. OHD_Archive. [OHD_FRM_0192](#); James Louwerse, H., Oct 25, 2022, Research Room Acquisition Proposal. OHD_Archive. [OHD_FRM_0193](#); James Louwerse, H., Nov 1, 2022, Research Room Agreement. OHD_Archive. [OHD_FRM_0194](#); James Louwerse, H., Oct 31, 2022, Research Room Guide. OHD_Archive. [OHD_RPT_0195](#); James Louwerse, H., Oct 28, 2022, Research Room Information Sheet. OHD_Archive. [OHD_WRT_0196](#); James Louwerse, H., Aug 2, 2022, Research Room Index prototype. OHD_Archive. [OHD_DSN_0197](#).

¹⁹ James Louwerse, H., Jun 22, 2023, C1168 Audit 2023. OHD_Archive. [OHD_COL_0262](#).

²⁰ James Louwerse, H., Jan 12, 2023, NCBS Takedown and alterations policy. OHD_Archive. [OHD_RPT_0249](#).

²¹ James Louwerse, H., Nov 21, 2023, Final copyright form. OHD_Archive. [OHD_FRM_0290](#); James Louwerse, H., Sep 14, 2021, Collection of preinterview stuff. OHD_Archive. [OHD_COL_0291](#); James Louwerse, H., Oct 28, 2024, Receipt of deposit. OHD_Archive. [OHD_RCP_0293](#); James Louwerse, H., Aug 7, 2024, Listening session audios. OHD_Archive. [OHD_AUD_0295](#).

²² Richard Buchanan, 'Wicked Problems in Design Thinking,' *Design Issues* 8, no. 2, (1992): 17.

individually created design artefacts for specific contexts, comparing and contrasting them and putting them in relation to existing theories and ideas.²³

pop. 009

The overall idea presented in this portfolio, or domain of design, should function as a source of inspiration for others who are grappling with a similar issue of maintaining access to oral histories. In some parts the portfolio is purposefully ambiguous - 'the artefact or situation sets the scene for meaning-making, but doesn't prescribe the result.'²⁴ The domain of design is suited to my research as I have framed the maintaining of access to oral histories as a 'wicked problem.'

pop. 010

A *wicked problem* is a term formally established in Horst Rittel and Melvin Webber's 1973 paper 'Dilemmas in a General Theory of Planning' and refers to modern societal problems that are difficult to define due to their multidimensional and dynamic nature.²⁵ One of the properties of wicked problems is that 'every wicked problem is essentially unique.'²⁶ This portfolio embraces ambiguity to accommodate the unique formulations of maintaining access to oral histories. The particulars of the individual design artefacts might not be applicable to every situation, but the general idea shown in the portfolio/domain of design might inspire new ways of thinking; pushing the audience to interpret their own situation and engage with it in a deeper and more personal manner.²⁷

pop. 011

I acknowledge this research project and the portfolio it produced is one of many approaches to the question of making oral histories accessible. As Rittel and Webber point out, 'the information needed to *understand* the problem depends upon one's idea for *solving* it.'²⁸ Dorst and Cross made a similar observation when they studied

²³ William Gaver, 'What should we expect from research through design?' *Proceedings of the SIGCHI conference on human factors in computing system*, (2012, May): 945.

²⁴ William Gaver, Jacob Beaver, and Steve Benford, 'Ambiguity as a resource for design,' *Proceedings of the SIGCHI conference on human factors in computing systems* (2003, April): 233.

²⁵ Horst Rittel, and Melvin Webber, 'Dilemmas in a General Theory of Planning,' *Policy Sciences* 4, no. 2 (1973): 155-169.

²⁶ *Ibid.*, 164.

²⁷ Gaver, Beaver, and Benford, 'Ambiguity as a resource for design,' 239.

²⁸ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 161.

design students' approaches to a particular design challenge. They observed a diverse array of interpretations depending on what the students thought the solution might be.²⁹ My ability to describe the situation surrounding the access of oral histories is directed by my belief that the opportunities to improve access to oral histories lie within maintenance. In the framing, it is impossible to perceive 'all conceivable solutions,' therefore what I am articulating cannot be considered a 'definitive formulation.'³⁰ Nevertheless, I do contribute a novel perspective to the conversation surrounding the access and reuse of oral histories by heeding Star's call to investigate 'boring things' and by focussing on the 'symbolic sewers' of archives and similar repositories, namely the standards, forms and storage procedures.³¹

To create some order in the chaos of a design process this portfolio has been divided into three sections: the Practice, the Wicked Problem(s), and the Case Example.

The Practice

pop. 012

My practice generated new knowledge about the challenges and opportunities associated with maintaining access to oral histories. This section unpacks how my focus on maintenance shaped this project into a form of research through design (RtD), using action research (AR) as my main methodology. It demonstrates how the environments and people I was working with influenced my AR and the outputs I eventually developed.

The Wicked Problem(s)

pop. 013

This section illustrates the various dimensions of the wicked problem of maintaining access to oral histories, as observed in my research within the institutions I worked

²⁹ Kees Dorst, and Nigel Cross, 'Creativity in the design process: co-evolution of problem–solution,' *Design Studies* 22, no. 5 (2001): 431.

³⁰ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 161.

³¹ Star, 'The Ethnography of Infrastructure,' 379.

with. This part of the portfolio aims to map the wicked nature of maintaining access to oral histories by viewing it from two perspectives. The first is what needs to be maintained, focussing on the evolution of technology and how this has changed ideas about access and created demands for new structures which also need new forms of maintenance. The second perspective discusses why in many circumstances this maintenance does not occur, including how the status of maintenance, the ability to maintain, and diminishing resources, hinder the capacity to maintain.

The Case Example

pop. 014

The case example presents the wicked problem of maintaining access to oral histories within the context of the National Trust and Seaton Delaval Hall. It includes the outputs I created to support the staff and volunteers of the organisation in improving and maintaining access to their oral history. However, it is again essential to remember Rittel and Webber's seventh property of a wicked problem: 'every wicked problem is essentially unique.'³² The other two sections draw from all three of my placements, my experience recording oral history, and my wider practice and research to offer a more general perspective on access to oral history and how this should be managed. This section focusses solely on my work with my central case example demonstrating how to identify opportunities to improve the maintenance of access to oral histories and design materials that will support this process. However, the outputs given in this section are examples, not a prescription.

³² Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 164.

The Practice

*“The best laid schemes o’ Mice an’ Men,
Gang aft agley”¹*

prac. 001

The brief for the final project of my Master’s degree in Multidisciplinary Innovation at Northumbria University was to set up an oral history project at the National Trust property Seaton Delaval Hall. One of the final conclusions my team came to was how archiving oral histories was quite tricky, therefore as a final output we created a brief for another project that would delve into the archiving of oral histories.² This brief became the starting point for my PhD research.

prac. 002

The original approach for this project is illustrated in a timeline made in 2021.³ It was very simple: a designer (me) was going to record oral histories and then use the recordings to design a system for making reuse easy. Seaton Delaval Hall was going to provide me with my oral history participants and be my testing grounds for my new system.

This did not go as planned for multiple reasons.

prac. 003

Initially, I became increasingly sceptical that designing a "solution" would solve the problem with oral history reuse. There is a suggestion of these insecurities in what I presented during my interview for this PhD in early 2020.⁴ The AI summary of the presentation script shows that I wanted to explore:

¹ Robert Burns (1759-1796) To a Mouse, On turning her up in her Nest with the Plough, November, 1785

² James Louwerse, H., Aug 2019, Multidisciplinary Innovation MA 2018-2019 Final Project Report - Seaton Delaval Hall. HJL's Home. OHD_RPT_0010.

³ James Louwerse, H., Mar 8, 2021, Project Timetable. OHD_Archive. [OHD_GRP_0162](#).

⁴ James Louwerse, H., Feb, 2020, Presentation/Interview for CDA. OHD_Archive. [OHD_PRS_0124](#).

new approaches to archiving and accessing oral histories that go beyond traditional methods. Developing user-friendly and engaging interfaces for exploring and interacting with oral history collections, [but also address] the challenges of maintaining and updating digital technologies over time.

prac. 004

I presented similar ideas over a year later at the start of my research period, only this time I emphasised how humans would have to fill the gaps of digital systems.⁵

prac. 005

I also researched my predecessors, those who in the decades prior to this research project have tried to improve the reuse of oral history reuse by utilising the latest technology of the time, from CD-roms to the World Wide Web to off-the-shelf market research software.

prac. 006

Project Jukebox

- **Date:** c. 1988
- **Location:** University of Alaska, Fairbanks, Alaska.
- 'Project Jukebox is a multimedia workstation which brings audio, written, and photographic records to the researcher at the click of a computer mouse.'⁶
Funded by an Apple Library of Tomorrow grant.⁷
- As *Project Jukebox* was initially set up in the early nineties it had to move on from 'compact disks' to better fit the modern age of technology.
- <https://jukebox.uaf.edu>

prac. 007

Interclipper

- **Date:** c.1998

⁵ James Louwerse, H., Mar 26, 2021, Oral History's Design: Sustaining visitor (re)use of oral histories on heritage sites. OHD_Archive. [OHD_PRS_0125](#).

⁶ Gretchen L. Lake, 'Project Jukebox: An innovative way to access and preserve oral history records,' *Provenance, Journal of the Society of Georgia Archivists* 9, no. 1 (1991): 24.

⁷ Yes, that Apple. Ibid., 27.

- **Location:** University of Buffalo's Technology Incubator.
- Originally an 'off-the-shelf software from market research, demonstrated at the Oral History Association annual meeting in Buffalo' in 1998. The software linked audio or video files 'and a fairly robust multifield database for annotating and marking audio/video passages.'⁸
- Significant lack of adoption and a general consensus that it was difficult to use.⁹
- <https://interclipper.com/lander> [dead link]

prac. 008

Civil Rights Movement in Kentucky Oral History Project Digital Media Database

- **Date:** 1998
- **Location:** Kentucky Historical Society
- 'An online digital project which offered themed and geographical browsing of content, global search, and a user experience that drilled down to organized audio excerpts as well as linking to online, searchable transcripts.'¹⁰
- The site was 'digitally abandoned, opened up to online hackers and eventually taken down.'¹¹ It is now back online.
- <https://history.ky.gov/news/civil-rights-movement-in-kentucky-oral-history-project>

prac. 009

VOAHA

- **Date:** 2003

⁸ Douglas Lambert, and Michael Frisch, 'Digital Curation through Information Cartography: A Commentary on Oral History in the Digital Age from a Content Management Point of View,' *The Oral History Review* 40, no. 1 (2013): 137.

⁹ Sherna Berger Gluck, 'Why do we call it oral history? Refocusing on orality/aurality in the digital age,' in *Oral History and Digital Humanities*, ed. Douglas A. Boyd and Mary A. Larson, (Palgrave Macmillan, 2014), 36; Erin Jessee, Stacey Zembrzycki, and Steven High, 'Stories Matter: Conceptual challenges in the development of oral history database building software,' *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* 12, no. 1 (2011): 3.

¹⁰ Douglas A. Boyd, "'I Just Want to Click on It to Listen': Oral History Archives, Orality, and Usability,' *Oral History and Digital Humanities*, ed. Douglas A. Boyd and Mary A. Larson, (Palgrave Macmillan, 2014), 89.

¹¹ *Ibid.*, 90.

- **Location:** California State University, Long Beach
- A project based around a collection of feminist oral history recordings with the aim of maintaining the orality of the recordings through 'curated excerpts, carefully selected and comprehensively described for the user.'¹²
- After the initial development of *VOAHA* it was plagued with all sorts of issues such as: a system crash in 2010, key team members retiring or passing away, and support for special projects being retracted. In the end *VOAHA* was absorbed into the university's main library system, losing its interactive elements.¹³
- <https://womensdigitallibrary.org/voaha-ii-virtual-oral-aural-history-archive-womens-history/>

prac. 010

Stories Matter

- **Date:** c. 2005, relaunched in c. 2023
- **Location:** Concordia University, Montreal, Quebec
- Stories Matter was branded as a software designed by oral historians for oral historians. 'It encourages a shift away from transcription, enabling oral historians to continue to interact with their interviews in an efficient manner without compromising the greater life history context of their interviewees.'¹⁴
- The first version stopped working after the discontinuation of Adobe Flash. A new version was released after a 120,000 dollar investment.¹⁵
- <https://github.com/kamicode/stories-matter-releases>

prac. 011

OHMS

¹² Douglas A. Boyd, and Mary A. Larson, 'Introduction,' in *Oral History and Digital Humanities*, ed. Douglas A. Boyd and Mary A. Larson (Palgrave Macmillan, 2014), 7; Gluck, 'Why do we call it oral history? Refocusing on orality/aurality in the digital age,' 38.

¹³ Gluck, 'Why do we call it oral history? Refocusing on orality/aurality in the digital age,' 45.

¹⁴ Jessee, Zembrzycki, and High, 'Stories Matter: Conceptual challenges in the development of oral history database building software,' 1.

¹⁵ Mayra Coelho Jucá dos Santos, 'Sharing stories and the creative challenge of keeping them alive: Interview with Steven High, founder of the Centre for Oral History and Digital Storytelling at Concordia University, in Montreal,' *História Oral* 25, no. 2 (2022): 248.

- **Date:** 2009
- **Location:** Louie B. Nunn Center for Oral History at the University of Kentucky
- 'A web-based digital tool to integrate the audio and video interview recordings in their entirety, with the searchable and readable text that users crave and demand.'¹⁶
- Since its initial creation in 2009 Boyd has continued to work on the maintainability of *OHMS*. In 2023 *OHMS* was added to the Aviary platform, and in 2025 additional features will be rolled out to help it better integrate into the new era of AI.¹⁷
- <https://www.oralhistoryonline.org/>

prac. 012

I felt a tension between a desire to make a product similar to those mentioned above, and a desire to ensure that whatever I designed would actually be realised and used. The endeavours of my predecessors were plagued by obsolescence and limited budgets. As the design theorist Cameron Tonkinwise writes, 'a wide range of people must be convinced to lend their money and materials and components and time and skills to realizing a particular design.'¹⁸ This produced some uncertainty around the output as I was unsure whether I had enough time to convince people to 'lend their money and materials and components and time and skills' to fully realise my final output.

prac. 013

My doubts around creating a product and whether it might be adopted were further confirmed by the designs I made and later abandoned.¹⁹ These designs varied from digital to analogue, but in every instance, I struggled to imagine how they would be integrated into the existing systems of the Hall. Susan Leigh Star experienced a

¹⁶ Boyd, "'I Just Want to Click on It to Listen': Oral History Archives, Orality, and Usability," 91.

¹⁷ Doug Boyd, 'OHMS: Transformational Transcript Changes Coming Soon,' YouTube video, 05:16, posted by 'Doug Boyd,' Nov 7, 2024, accessed Mar 5, 2025, <https://www.youtube.com/watch?v=rKlwlspBcFk>.

¹⁸ Cameron Tonkinwise, 'Design for Transitions—from and to what?' *Design Philosophy Papers* 13, no. 1 (2015): 90.

¹⁹ James Louwerse, H., Oct, 2021, No Man's Land. OHD_Archive. [OHD_RPT_0134](#); James Louwerse, H., Sep 23, 2021, Transcription Ribbon. Hannah's Harddrive. OHD_PRT_0221; James Louwerse, H., Oct, 2021, No Man's Land. OHD_Archive. [OHD_RPT_0134](#); James Louwerse, H., 2021, Designs for archive both analogue and digital. Archive Box 1. OHD_DSN_0014; James Louwerse, H., Aug, 2022, prototype for a sound box. OHD_Archive. OHD_PRT_0217.

similar situation when she developed 'an electronic shared laboratory and publishing space' for a group of biologists. Even though she and her team followed the basic principles of participatory design, the biologist ended up not using the system because, as Star acknowledged, they had not considered the infrastructure that existed around the system.²⁰ When I look back at the product designs I created, it is now obvious that I had not considered the associated processes. I had not thought about where these practical products would be housed, who would maintain them, and who would monitor them. Neither had I considered the ethical questions these products evoked, and what paperwork would be necessary for the product to function.

prac. 014

Take for example the digital solutions I considered, such as the 'Transcription Ribbon.'²¹ To have something like this adopted, I would need a very large number of people to be on board, from software developers to marketing experts. Within the context of my case study the adoption of such a design would have been completely impossible. The Hall is not allowed to use any software that has not been approved by the wider Trust and the Trust has a rather rigid IT system and policy, which at the time I was developing these designs was having a significant reshuffle because of the Covid-19 pandemic.²²

prac. 015

I even created analogue product solutions, after an interviewee emphasised her difficult relationship with digital technology during my first oral history interview.²³ In his book *The Shock of the Old*, David Edgerton views the history of technology through the lens of use instead of innovation, offering up a radically different perspective on technology, one where old and new are all jumbled up together:

²⁰ Susan Leigh Star, 'The Ethnography of Infrastructure,' *American Behavioral Scientist* 43, no.3 (1999): 380.

²¹ James Louwerse, H., Sep 23, 2021, Transcription Ribbon. Hannah's Harddrive. OHD_PRT_0221; James Louwerse, H., Sep 24, 2021, Interface. OHD_Archive. [OHD_DSN_0222](#).

²² Jonathan Knott, 'National Trust defends restructure plans,' *Museum Association*, Aug 28, 2020, accessed Feb 13, 2025, <https://www.museumsassociation.org/museums-journal/news/2020/08/national-trust-defends-restructure-plans/>.

²³ I gave this interview the label SDH_PP_001. It is unknown to me what the Northumberland Archives has labelled it at the time of writing.

*Since the late 1960s many more bicycles were produced globally each year than cars. The guillotine made a gruesome return in the 1940s. Cable TV declined in the 1950s to reappear in the 1980s. The supposedly obsolete battleship saw more action in the Second World War than in the First. [...] The horse made a greater contribution to Nazi conquest than the V2.*²⁴

In response to Edgerton's book and the interviewee's remark, I created the 'Ghost Boxes'²⁵ and 'Sound Box'²⁶ to avoid the issue of integrating the design into the Trust's IT system and accommodating that different levels of familiarity with digital technology.

prac. 016

However, with these boxes I was still missing part of the structure, as I had not considered how these boxes were going to be maintained, and the ethical and legal implications of collecting people's comments and their personal data.

prac. 017

The destructive side of design also fed into my fear of creating a single solution to the oral history reuse and access problem. In *Ruined by Design* Mike Monteiro discusses the particular destruction caused by various products created in Silicon Valley.²⁷ Tonkinwise also emphasises the destructive nature of design claiming, 'My colleagues teach the students to design stuff, and I teach them not to.'²⁸ Monteiro refers to Erika Hall and Kio Stark's book, *Just Enough Research*, which offers examples of failed designs, such as the Segway, as examples of people not doing enough research before they design.²⁹ I was afraid that I would not be able to do sufficient research for people to feel confident enough to sacrifice their time, money and skills to help integrate my design into their existing systems.

²⁴ David Edgerton, *The Shock of the Old: Technology and Global History since 1900*, (Profile, 2008), xii.

²⁵ James Louwerse, H., Oct, 2021, No Man's Land. OHD_Archive. [OHD_RPT_0134](#); James Louwerse, H., 2021, Designs for archive both analogue and digital. Archive Box 1. OHD_DSN_0014.

²⁶ James Louwerse, H., Aug, 2022, prototype for a sound box. OHD_Archive. OHD_PRT_0217.

²⁷ Mike Monteiro, *Ruined by Design*, (Mule Design, 2019).

²⁸ Cameron Tonkinwise, 'Design away,' in *Design as Future-Making*, ed. Barbara Adams and Susan Yelavich, (Bloomsbury Academic, 2014), 198.

²⁹ Erika Hall, *Just Enough Research* (A Book Apart, 2013),1.

prac. 018

Another reason I was unsure about designing a specific solution was that it is difficult to test an archive.³⁰ Solutions to wicked problems cannot be tested in their entirety because 'any solution, after being implemented, will generate waves of consequences over an extended—virtually an unbounded—period of time.'³¹ In my project the initial aim was to design a solution for the archiving of oral histories, the consequences of which will only be known years, or more likely decades, into the future.

prac. 019

In addition, my collaboration partners at Seaton Delaval Hall and the National Trust moved at a slower pace than my original timeline had accounted for,³² and a workshop I ran during the Seaton Delaval Hall Community Research Day indicated there was opposition to radical change or experimentation more generally.³³ This was especially the case with the Hall as the Trust's presence had not always been welcomed by members of the local community, adding to staff anxieties concerning risks arising from trialling new developments. These factors are relevant to the fifth property of wicked problems: 'every solution to a wicked problem is a 'one-shot operation'; because there is no opportunity to learn by trial-and-error, every attempt counts significantly.'³⁴

prac. 020

All this put me in a rather odd position, where I felt I could not comprehensively test solutions or do enough research for a solution to be adequate enough for the staff and volunteers at Seaton Delaval Hall. However this changed when I rediscovered Mierle Laderman Ukeles and her work as a maintenance artist through Charlie Morgan's blog post, 'When the crisis fades, what gets left behind?'³⁵

³⁰ James Louwerse, H., Feb 2, 2022, Testing archives. OHD_Archive. [OHD_BLG_0049](#).

³¹ Horst Rittel, and Melvin Webber, 'Dilemmas in a General Theory of Planning,' *Policy Sciences* 4, no. 2 (1973): 163.

³² James Louwerse, H., Mar 8, 2021, Project Timetable. OHD_Archive. [OHD_GRP_0162](#).

³³ James Louwerse, H., Apr 12, 2022, Philosophy is easier than reality. OHD_Archive. [OHD_BLG_0043](#).

³⁴ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 163.

³⁵ Charlie Morgan, 'When the crisis fades, what gets left behind?,' *Oral History Society*, n.d., c. 2021, accessed Jan 4, 2025, <https://www.ohs.org.uk/general-interest/when-the-crisis-fades-what-gets-left-behind/>.

prac. 021

Mierle Laderman Ukeles is a feminist performance artist whose work is themed around maintenance and service work. She produced her radical *Manifesto for Maintenance Art 1969!* out of frustration with the art world's failure to engage with the routine labour of everyday life, including the toils of (her) motherhood. In her manifesto Ukeles argues that the world is split into a 'development system' and a 'maintenance system.' Ukeles considers the maintenance system 'the life instinct' where the aim is to 'preserve the new; sustain the change; protect progress' or to put it in more simple terms: keep things going. The development system –the creation of things– is 'the death instinct' focussed on 'pure individual creation; the new; change; progress.' Within this stark opposition, the maintenance system holds a lower status in society. Maintenance is seen as repetitive, boring, and endless or, as Ukeles puts it, 'a drag.' The development system, on the other hand, is 'excitement!' Ukeles summarises the dynamic between these two systems as follows: 'After the revolution, who's going to pick up the garbage on Monday morning?'³⁶

prac. 022

The sentiment in Ukeles' work gave me a new way of framing my research topic. Instead of attempting to solve the issue of oral history reuse I would research what it takes to maintain access to oral histories to ensure reuse can occur in the first place. Thus, my focus switched from development to maintenance, and I created a *Manifesto for Maintenance Design 2021!*.³⁷ However, working out what maintenance is is a lot more challenging than writing a manifesto because, for the most part, maintenance is taken for granted and invisible.

prac. 023

To make the invisible maintenance of this situation visible, I needed a strategy that would get me into the structure of maintenance. I chose action research (AR), a research strategy that integrates research, action, and participation.³⁸ AR seeks to

³⁶ Alex Danchev, and Mierle Laderman Ukeles, 'M81. Mierle Laderman Ukeles: Maintenance Art Manifesto,' in *100 Artists' Manifestos*, ed. Alex Danchev (Penguin Group, 2011), 382.

³⁷ James Louwerse, H., Dec 23, 2020, the code/manifesto. OHD_Archive. [OHD_WRT_0121](#).

³⁸ Davydd Greenwood, and Morten Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, (Sage Publications, 2007), 2; Davydd Greenwood, and Morten Levin, *Introduction to Action Research: Social Research for Social Change*, (Sage Publications, 1998), 6.

be democratic, by being 'a situated process' where the 'local people,' are not 'passive recipients (subjects) of the research process' but 'active participants' in the project.³⁹ To do this, I completed placements at three different organisations, alongside a longer oral history project.

prac. 024

My main task during the placement at Seaton Delaval Hall was to create an on-site Research Room, filled with material that was important to the Hall but could not be included in the collection. The Trust's collection policy determines that objects, and only objects, enter the collection under two categories: 'Accessioned objects, which form part of the Trust's permanent collections and are kept for preservation and in perpetuity,' and 'Non-accessioned objects, which do not form part of the Trust's permanent collections and [...] includes objects that help to furnish a property or that can be used for handling or educational purposes.'⁴⁰ The materials for the Research Room did not qualify for the former category and would often not be taken through the process associated with the latter, in part because the staff, volunteers, and the donor lacked the time to complete the process.

prac. 025

I did not design the physical space of the Research Room, but designed the room's systems, processes, and accompanying recording forms; learning about copyright and data protection in the process.⁴¹ I also occasionally had to step in to do room guiding when there were not enough volunteers. I helped set up the tech for an exhibition.⁴² And throughout I was able to garner insights into the Trust's inner workings, from their use of Microsoft SharePoint to their collection policies.

³⁹ Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 75; Robert Sommer, and Barbara Baker Sommer, *A Practical Guide to Behavioral Research: Tools and Techniques*. 5th ed., (Oxford University Press, 2002), 212.

⁴⁰ National Trust, *National Collections Development Policy 2019-2024*, 2019, 6.

⁴¹ James Louwerse, H., Sep 8, 2022, Research Room Donation Flowchart. OHD_Archive. [OHD_DSN_0158](#); James Louwerse, H., Oct 31, 2022, Research Room Acquisition Copyright form. OHD_Archive. [OHD_FRM_0192](#); James Louwerse, H., Oct 25, 2022, Research Room Acquisition Proposal. OHD_Archive. [OHD_FRM_0193](#); James Louwerse, H., Nov 1, 2022, Research Room Agreement. OHD_Archive. [OHD_FRM_0194](#); James Louwerse, H., Oct 31, 2022, Research Room Guide. OHD_Archive. [OHD_RPT_0195](#); James Louwerse, H., Oct 28, 2022, Research Room Information Sheet. OHD_Archive. [OHD_WRT_0196](#); James Louwerse, H., Aug 2, 2022, Research Room Index prototype. OHD_Archive. [OHD_DSN_0197](#).

⁴² James Louwerse, H., Aug 4, 2022, Possible options for MP3 players. OHD_Archive. [OHD_RPT_0323](#).

prac. 026

In addition to my placement, I volunteered at the Hall to ensure a better rapport with volunteers and staff,⁴³ and recorded oral histories from various people associated with the hall. I followed through the oral history processes from identifying interviewees through to preparing materials for curation, including making my own copyright and reuse permission forms to ensure the recordings could be donated to Northumberland Archives.⁴⁴ I also engaged in post-collection public history by running a listening session to share my work more widely with the Hall's community and edited some of the recordings into a sound walk to demonstrate how oral histories could be used on site.⁴⁵

prac. 027

Although most of the work was based around the Hall, I also had contact with Trust staff who operated on a national and regional basis,⁴⁶ and my final workshop was attended by staff and volunteers from all over the country.⁴⁷

prac. 028

The two main policy documents I produced for Archives at NCBS were a takedown procedure and a sensitivity protocol.⁴⁸ Since I had already undertaken ethics and legal work at Seaton Delaval Hall, this seemed a natural progression in developing the framework of my practice. In addition, I helped facilitate that year's staff away

⁴³ James Louwerse, H., 2023, Thank you notes. OHD_Archive. [OHD_COL_0324](#).

⁴⁴ James Louwerse, H., Nov 21, 2023, Final copyright form. OHD_Archive. [OHD_FRM_0290](#); James Louwerse, H., Oct 28, 2024, Receipt of deposit. OHD_Archive. [OHD_RCP_0293](#).

⁴⁵ James Louwerse, H., 2023, Thank you notes. OHD_Archive. [OHD_COL_0324](#).

⁴⁶ James Louwerse, H., Apr 22, 2021, A Spanner, a Chat and a Gang. OHD_Archive. [OHD_BLG_0063](#); James Louwerse, H., Oct 13, 2022, Presentation for Jo and Heather. OHD_Archive. [OHD_PRS_0185](#); James Louwerse, H., Oct 27, 2022, NT Oral History Workshop. OHD_Archive. [OHD_WKS_0208](#).

⁴⁷ James Louwerse, H., Jan 31, 2024, NT OH workshop audio. OHD_Archive. [OHD_AUD_0308](#); James Louwerse, H., Sep, 2023, JAN CRIT PLAN ETC. OHD_Archive. [OHD_COL_0279](#).

⁴⁸ James Louwerse, H., Jan 12, 2023, NCBS Takedown and alterations policy. OHD_Archive. [OHD_RPT_0249](#); James Louwerse, H., Feb 13, 2023, NCBS sensitivity check doc. OHD_Archive. [OHD_RPT_0250](#).

day,⁴⁹ created a poster for the exhibition week of NCBS,⁵⁰ and gave advice on oral history access options.⁵¹

I also observed the work environment of the Archives throughout my placements and created a graphic which summarised my findings.⁵²

prac. 029

My one-month placement at the British Library involved conducting two audits. The first was an audit of National Trust material that had not yet been catalogued and the second was an audit of the copyright status of the recordings in the National Trust sound collection.⁵³

prac. 030

Within these placements I was not positioned as a consulting designer, but simply a worker, who just happened to do design and was working on a PhD about oral histories. AR positioned me not as the expert designer but the 'friendly outsider,' the 'reflective practitioner,' a willing participant of the community I was working in.⁵⁴ Within these placements I was told what needed doing and I did it. I had some autonomy, but generally I was given tasks to fulfil.

prac. 031

These placements and case study revealed to me the realities of innovation in a maintenance orientated organisation such as archives and heritage sites. I was able to directly experience the environment my output would have to integrate into, and what the priorities were in the workplace, which distractions occurred, and the feelings and attitude the staff had to certain forms of work. For example, the tasks I was assigned revealed how these were not prioritised by the full-time staff. In

⁴⁹ James Louwerse, H., Feb 8, 2023, Miro board of the NCBS away day. OHD_Archive. [OHD_WHB_0247](#).

⁵⁰ James Louwerse, H., Jan 21, 2023, Archives at NCBS poster. OHD_Archive. [OHD_GRP_0314](#).

⁵¹ James Louwerse, H., Jan 23, 2023, Options for making oral histories accessible. OHD_Archive. [OHD_RPT_0256](#).

⁵² James Louwerse, H., Mar 20, 2023, What is Archives at NCBS?. OHD_Archive. [OHD_GRP_0261](#).

⁵³ James Louwerse, H., Jun 22, 2023, C1168 Audit 2023. OHD_Archive. [OHD_COL_0262](#); James Louwerse, H., May 23, 2023, C1168 uncatalogued items. OHD_Archive. [OHD_WRT_0276](#).

⁵⁴ Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 125; Donald Schön, *The Reflective Practitioner*, (Routledge, 2016).

addition, being embedded into these organisations ensured the outputs I made during my placements such as the Research Room guide, the takedown policy, or the audit of the National Trust's sound collection all reflect and mimic a format that is familiar to my colleagues in the respective organisations. But when these outputs are brought together, they form a general idea of oral history research which I believe can be used to inspire those who wish to record, archive, and reuse oral history to consider the maintenance of oral histories more consciously.

prac. 032

To summarise, I was sceptical of my initial understanding of this project's aim but the rediscovery of Ukeles amongst other things made me re-evaluate and pivot towards a more maintenance-oriented way of thinking. This focus on maintenance forced me to drop my professional façade and work alongside the people who I had to rely on to maintain my work once completed.

The Wicked Problem(s)

wp. 001

The eighth property of wicked problems is that: 'every wicked problem can be considered to be a symptom of another problem.'¹ I believe the limited reuse of oral history is, at least in part, a symptom of the insufficient maintenance of access to oral histories. My research into previous attempts to improve the reuse of oral history through digital technology revealed that historically little attention has been given to maintaining oral history archives and repositories.² However, like the limited reuse of oral histories being a symptom of insufficient maintenance, the scarce maintenance of access to oral histories is also the symptom of other wicked problems. My research focussed primarily on mapping and understanding the various dimensions of the wicked problem of maintaining access to oral histories. Throughout my research I produced several maps and graphics exploring these interlinking wicked problems, editing and adding to them as I learnt more about the reality of maintaining oral history archives and repositories.

wp. 002

The struggle with mapping these wicked problems is how each formulation of the wicked problem of maintaining access to oral history is 'essentially unique.'³ I had to avoid being too specific with these maps as some factors do not universally apply to all organisations with oral history archives or repositories. This is not uncommon in a design process, as 'design is fundamentally concerned with the particular.'⁴ The majority of the outputs I created were specifically tailored to the institutions I was working in as there were several differences. For example, the British Library (established in the 18th century) and the National Trust (founded in the 19th century) have deep-rooted traditions that make adapting to the digital era challenging. In contrast, Archives at NCBS, founded in 2019, emerged in the digital age and is less

¹ Horst Rittel, and Melvin Webber, 'Dilemmas in a General Theory of Planning,' *Policy Sciences* 4, no. 2 (1973): 165.

² For more on this see section [The Practice](#), and for an even more in depth look see 'Oral History and Technical Failures' in the [Critical Commentary](#).

³ *Ibid.*, 164.

⁴ Richard Buchanan, 'Wicked Problems in Design Thinking,' *Design issues* 8, no. 2 (1992), 17.

constrained by analogue custom and practice. The British Library and Archives at NCBS are both archives with oral history collections, while the National Trust is a heritage charity which collects oral histories, but deposits them with the British Library. As a heritage organisation the staff at Seaton Delaval Hall need to manage a wider infrastructure including a cafe, toilets, a garden, a shop, a car park, and a wider voluntary workforce. I recognise all three have space which are open to the public, but unlike at the Hall, the General Manager and the Collections staff at the British Library and Archives at NCBS are not also pointing visitors to the correct parking spots! The Library and the Archives have particular staff to carry out these jobs. In addition, each organisation has different funding streams and staffing structures, all of which will, as I discuss later, contribute to how the access to oral history can be maintained.

wp. 003

Throughout my design process I was adding and taking away from the wicked problem, fluctuating between the specific and the general. Eventually the wicked problem consisted of four general areas of wickedness, which occurred throughout my placements and oral history project: technology, ethics, labour, and money. They are of course not the only areas that contribute to the wicked problem of maintaining access to oral histories as is proven by two similar talks I gave on the wicked problem of oral history access and reuse.⁵ The one was presented in the summer of 2023 and the other was presented in the spring of 2024. I decided to drop 'value' from this graphic because value was something that was very specific to my work with the National Trust, due to their collection policy not including oral histories or any other types of intangible heritage.⁶

wp. 004

Once I started constructing this portfolio, the areas were reduced once more to the adaptive maintenance required to fulfil public expectations of access, and the barriers to maintenance. Although each situation will differ in their formulation of the

⁵ James Louwerse, H., Jun 23, 2023, Reusing oral history in GLAM: a wicked problem. OHD_Archive. [OHD PRS 0265](#); James Louwerse, H., Apr 25, 2024, Iraq Symposium talk. OHD_Archive. [OHD PRS 0300](#).

⁶ National Trust, *National Collections Development Policy 2019-2024*, 2019. Read more about this in the section [The National Trust](#).

wicked problem, I believe these two areas are starting points for thinking about the maintenance of access to oral histories.

From Shelves to Servers

wp. 005

Doug Boyd ends his chapter in the book *Oral history and Digital Humanities* with an anecdote about his daughter coming across a box of cassettes and not recognising the analogue medium. After Boyd explained what the tapes were and how they were used, she simply replied 'I just want to click on it to listen.'⁷ This is a useful insight into how developments in technology have affected expectations of access. Where before you had to go to a record shop to buy a CD, cassette, or vinyl; now, nearly all music is available to you via the comfort of your phone. Similarly, in previous decades you had to travel to an archive to access recordings, now oral histories and other archival material are expected to be available online (especially after the Covid-19 pandemic). Digital technologies have created the idea that access to data, information and creative content should be instant, which has also resulted in the structure of oral history repositories moving from shelves to servers.

wp. 006

This move from shelves to servers is a form of adaptive maintenance. Adaptive maintenance is a basic form of maintenance found in software engineering alongside corrective, perfective and preventive maintenance.⁸ These are mainly used within the field of software engineering, but I have found the idea of adaptive maintenance a helpful term within the context of this wicked problem. Adaptive maintenance means adapting a structure to make it fit an environment which has changed.⁹ The move from shelves to server within the context of oral history archives and repositories is adaptive maintenance because it is adapting to meet the new public expectation of

⁷ Douglas A. Boyd, "'I Just Want to Click on It to Listen': Oral History Archives, Orality, and Usability," in *Oral History and Digital Humanities*, ed. Douglas A. Boyd and Mary A. Larson, (Palgrave Macmillan, 2014), 77.

⁸ E. Burton Swanson, 'The Dimensions of Maintenance,' in *Proceedings of the 2nd international conference on Software engineering*, ed. Raymond T. Yeh and C. V. Ramamoorthy, (IEEE Computer Society Press, 1976), 494.

⁹ *Ibid.*, 493.

access - 'I just want to click on it to listen.' The most common form of adaptive maintenance is the digitisation of oral histories.

wp. 007

The digitisation of oral history consists of making a digital copy of analogue recordings. My audit of National Trust recordings which had not yet been catalogued by the British Library demonstrated that digitisation is not a one-time activity.¹⁰ The audit revealed a wide array of formats including CDs, cassettes, MiniDiscs, and an unknown digital file type, which might have to be converted in order to be accessed. Sadly, the large digitisation project at the British Library, Unlocking our Sound History or UOSH, had just finished,¹¹ and so much of the resources needed to digitise were no longer easily available.

wp. 008

Alongside the digitisation of analogue recordings and associated data, adaptive maintenance within oral history archives and repositories, as I have previously discussed, involves moving from shelves to servers. The entire structure surrounding the material, the catalogue, and the storage location, must become digital, leaving carbon paper and index cards behind. Rob Perks writes about how he experienced this during his time at National Life Stories, the oral history charity that is situated within the British Library. He notes a 'painful and protracted' move from analogue to digital at the British Library, including the acquisition of a digital management system, the development of a new accessioning system, and the training required to ensure staff gained sufficient skills and knowledge to implement the new digital content correctly.¹²

wp. 009

Adaptive maintenance does not remove the existence of analogue material or systems. Digitisation rarely replaces analogue systems completely and the rate of

¹⁰ James Louwerse, H., May 23, 2023, C1168 uncatalogued items. OHD_Archive. [OHD_WRT_0276](#); James Louwerse, H., Jun 22, 2023, C1168 Audit 2023. OHD_Archive. OHD_COL_0262.

¹¹ 'British Library,' *The National Archives*, n.d., accessed 6th January 2025, <https://www.nationalarchives.gov.uk/archives-sector/advice-and-guidance/resources-by-archive-type/arts-archives/case-studies/british-library/>.

¹² Robert B. Perks, 'Messiah with the microphone? Oral historians, technology, and sound archives,' in *The Oxford Handbook of Oral History*, ed. Donald A. Ritchie, (Oxford University Press, 2011), 326.

adoption will differ radically between institutions and organisations. This can be referred to as the 'digital divide.' In the early 2000s, the digital divide primarily referred to the access to hardware, software, and the internet. More recently it has been extended to encompass people's digital skills, so their ability to use technology, the frequency they use it, and how much it is integrated into their lives.¹³

wp. 010

This uneven adoption of digital systems often leads to hybrid systems, consisting of analogue and digital components, as I saw in the office of National Life Stories.¹⁴ Nor does this adaptive maintenance eradicate issues experienced with analogue material such as 'folios [that have] fallen behind books stack.'¹⁵ This follows a basic rule of invention and development: 'To invent the sailing ship or steamer is to invent the shipwreck.'¹⁶ Therefore, after digitisation archivists have to deal with dropped analogue folios and the digital equivalent - dead links.¹⁷

wp. 011

In addition to dead links during my research period there were also multiple IT incidents at the National Trust,¹⁸ a cyber-attack at The British Library,¹⁹ websites that were not working,²⁰ and technology that became obsolete.²¹

wp. 012

This is not an argument against the move from shelves to servers, after all my cat also weed on my paper PhD archive, causing me to throw some archival material away.²² This was not a great loss though, because I had already digitised the

¹³ Jan A. G. M. Van Dijk, 'Digital divide: Impact of access,' in *The International Encyclopedia of Media Effects*, ed. Patrick Rössler, Cynthia A. Hoffner, and Liesbet van Zoonen Rössler, (John Wiley & Sons, 2017), 1-11.

¹⁴ James Louwerse, H., May 23, 2023, Collection of photographs of The British Library. OHD_Archive. [OHD_COL_0271](#).

¹⁵ James Louwerse, H., Mar 31, 2021, Zoom comment on digital archives. OHD_Archive. [OHD_SSH_0146](#).

¹⁶ Paul Virilio, *The Original Accident*, (Polity, 2007), 10.

¹⁷ James Louwerse, H., Sep 25, 2023, Finding recordings. OHD_Archive. [OHD_COL_0278](#).

¹⁸ James Louwerse, H., Dec 11, 2024, Screenshots of NT IT incidents. OHD_Archive. [OHD_SSH_0292](#).

¹⁹ James Louwerse, H., Dec 4, 2023, British Library down. OHD_Archive. [OHD_SSH_0313](#).

²⁰ James Louwerse, H., Dec 12, 2024, Blocked access. OHD_Archive. [OHD_SSH_0307](#).

²¹ James Louwerse, H., Jul 1, 2024, Jamboard dies. OHD_Archive. [OHD_SSH_0311](#).

²² James Louwerse, H., Jul 15, 2022, Archive Box 1. OHD_Archive. [OHD_PRT_0038](#).

material. I offer these examples of breakdowns to highlight the perils of any structure, digital or analogue, and how these need to be considered equally. Digital technology is not magic but simply another form of a structure and all structures need maintenance.

wp. 013

The change in society's expectation of access ('I just want to click on it to listen') has led to a mass transformation of the oral history structures into hybrid systems with new additional forms of maintenance labour. In addition, we also need to consider how this change in expectations has not only influenced the systems which create access, but also the feelings we have around access. As Almut Leh writes, 'the digital representation of original documents has considerably promoted their dissemination and thus their visibility.' This results in them being more easily accessible and capable of being ingested and interpreted by machines on a mass scale.²³ Outside of oral history, this increase in access has had significant consequences on the ethics, laws, and guidelines which surround data management, which in turn have affected how oral histories can be accessed.

wp. 014

However, these laws were not explicitly made for oral histories and so how they should be applied can be confusing. Those who maintain the access to oral histories now also need to rethink how they classify and handle material. Through my research, specifically my work during the placements, I identified three areas which have been affected by the changing expectations of access: ownership, personal information, and sensitive content.

Ownership

wp. 015

The ownership of oral history and materials in general has changed a lot over the decades as the internet has made sharing and duplicating material a lot easier. My

²³ Almut Leh, "The answer is 42" – When Algorithms Take over Digital Memory. Experiences with Artificial Intelligence in the Archive *Deutsches Gedächtnis*,' in *Von Menschen und Maschinen: Mensch-Maschine-Interaktionen in digitalen Kulturen*, ed. V. Selin Gerlek, Sarah Kissler, Thorben Mämecke, Dennis Möbus, (Hagen University Press, 2022), 173.

copyright audit of the National Trust's sound collection illustrated the history of oral history and copyright.²⁴

wp. 016

Currently, in the UK and most of the West an oral history is understood as a recorded performance, and therefore the performer, i.e. those speaking on the recording hold copyright over their voices. Those recorded must sign their copyright over to the relevant party. In most cases, this will be the archive or repository holding the oral history, if a recording is to be reused. Importantly, this rule of copyright applies to every recorded oral history, even those recorded before this law was enacted. This is why I created the foundations for the Trust to develop a workflow that could be used to obtain copyright or to confirm that the oral history is an orphan work.²⁵

wp. 017

A work is considered 'orphaned' when the original creator is not contactable or not known. In the case of oral history, a recording becomes an orphan work when the speaker was born 120 years ago (some organisations, like the British Library, the cut-off point is 100 years instead of 120.) In some cases, however, it might be preferable to try to contact the next of kin in cases where third parties are mentioned in the recording.

Personal Information

wp. 018

The collection of personal information has become increasingly controversial with the rise of social media. The Facebook-Cambridge Analytica data scandal in 2016 became a particular poignant example of large companies using their customers' personal data as if it was their own asset.²⁶ Since the 2010s, laws have been created to protect people's personal information, with the classic example being the EU's

²⁴ James Louwerse, H., Sep 6, 2023, NT BL Report. OHD_Archive. [OHD_RPT_0274](#).

²⁵ James Louwerse, H., Jun 21, 2023, NT property recommendations for PhD placement. OHD_Archive. [OHD_RPT_0263](#).

²⁶ Nicholas Confessore, 'Cambridge Analytica and Facebook: The Scandal and the Fallout So Far,' *New York Times*, Apr 4, 2018, accessed Feb 6, 2025, <https://www.nytimes.com/2018/04/04/us/politics/cambridge-analytica-scandal-fallout.html>.

General Data Protection Regulation (GDPR), which became effective in May 2018, replacing the Data Protection Directive of 1995. The GDPR was later adopted by the UK after its formal exit from the EU in 2020. Many data protection laws around the world have either been modelled on the GDPR, or the EU's Data Protection Directive. While some data protection laws, like India's Digital Personal Data Protection Act, apply only to digital data, the GDPR covers all data, including oral history.

wp. 019

Oral histories generally collect two forms of personal data: the personal information of the interviewee on the permission forms, and the recording of the interview. The former is easy to handle under the GDPR because what data is collected is clearly understood as personal data: name, address, contact information etc. When I was designing the Research Room at Seaton Delaval Hall, all the forms I designed had to follow the same GDPR guidelines.

wp. 020

The management of the interview recording is slightly more complicated. Data protection laws like the GDPR were designed to protect people's privacy, but oral history is recorded for public knowledge. This means oral history is personal information for public consumption, which does not fit GDPR's framework. This causes some confusion under archivists and those with similar professions.

wp. 021

Data protection never occupied a central position in my placements, but it was always present. I researched it while I developed the Research Room for Seaton Delaval Hall and the takedown policy for Archives at NCBS. The general advice I started giving people when asked about data protection, was to adopt a continuous awareness of the legislation around data. This is admittedly very basic, but I believe it captures the general aim of the regulation:

- Make sure the data is kept in a safe place and access to this storage is monitored and recorded.
- Make sure to be transparent with the owner of the data, in terms of where it will be stored and who will use it.

- And make sure it's easy for them to ask questions about their data and have it removed if necessary.

wp. 022

In terms of designing and developing outputs, GDPR and other data protection regulations made me consider how a system which holds and grants access to personal data must be transparent and open, and above all easy to understand and navigate by both the owner of the personal data and the person holding it. This was particularly vital when I designed the processes and forms for the Research Room at Seaton Delaval Hall.²⁷

Sensitive Content

wp. 023

The third area of ethics is the management of sensitive content. This is not particularly linked to the rise of the internet, as moral outrage and the management of morally dubious or harmful content predates the digital world. However, the ease of, and scale of, access through the internet has led to public concerns that focus on children or vulnerable adults discovering upsetting, inappropriate or 'triggering' material. It has therefore become common to conduct regular sensitivity checks on archival material in response to shifting moral and ethical standards.

wp. 024

The sensitivity check I made for Archives at NCBS was specifically designed to be quick. Archives at NCBS generally follow the archival principle of 'More Product, Less Process' outlined by Mark Greene and Dennis Meissner: so speed was key.²⁸ I therefore created a green light/red light system which could quickly categorise material as sensitive or not. There were two perspectives on sensitivity: material which could harm the donor, their kin, or close associates, and material which could harm the researcher accessing the material. For the former I created a flowchart and for the latter I simply had a list of sensitive and non-sensitive material.

²⁷ See my work on Seaton Delaval Hall's Research Room in the portfolio section, [Seaton Delaval Hall](#).

²⁸ Mark Greene, and Dennis Meissner, 'More product, less process: Revamping traditional archival processing,' *The American Archivist* 68, no. 2, (2005): 208-263.

wp. 025

The purpose of this quick sensitivity check was to get material available quickly and then later do more thorough sensitivity checks. This approach differed significantly from that of the staff at Seaton Delaval Hall, who took a more deliberate approach to managing the sensitivity of their oral histories. They decided to create a group of staff members that would work together as a form of ethics board.²⁹ This again shows the wicked problem of maintaining access to oral histories will vary between cultures and institutions, and therefore require different approaches.

wp. 026

Out of the three areas I have discussed, sensitivity is the most nebulous and dynamic, as it is mostly dictated by social opinions rather than any rules or regulations, although laws such as the Online Safety bill in the UK might change this.³⁰ Nevertheless, all three areas of ethics might look very different in the future. This is why such documents and processes, like a takedown policy, are important. A takedown policy exists exactly because things change. The takedown policy I made for Archives at NCBS emphasises change and underlines the importance of taking things on a case-by-case basis.³¹

wp. 027

Things will change. Even during the four years of my project, technology has dramatically changed. In November 2020 I wrote a blog post about a computer being able to write my PhD by ingesting the archive I was creating.³² Two years later I could test this proposition with ChatGPT. I even experimented with it summarising interviews.³³ AI has also complicated copyright and data protection with many of the large tech companies developing AI being accused of scraping material from the internet without asking permission of the creators. As a result, the tech companies are facing several class action lawsuits and the outcome of the lawsuits could again

²⁹ James Louwerse, H., Aug 5, 2024, SDH oral history strategy. OHD_Archive. [OHD_RPT_0296](#).

³⁰ 'Online Safety Bill: divisive internet rules become law,' editorial, *BBC*, Oct 26, 2023, accessed Feb 6, 2025, <https://www.bbc.co.uk/news/technology-67221691>.

³¹ James Louwerse, H., Jan 12, 2023, NCBS Takedown and alterations policy. OHD_Archive. [OHD_RPT_0249](#).

³² James Louwerse, H., Nov 14, 2020, Replaced. OHD_Archive. OHD_BLG_0095.

³³ James Louwerse, H., Feb 22, 2023, ChatGPT and oral history. OHD_Archive. [OHD_WRT_0251](#).

affect how we share information.³⁴ However, at the time of writing, many of the archives have already been scraped to be used in large datasets for training large language models.

‘Maintenance is a drag’³⁵

wp. 027

Every formulation of a wicked problem is unique, even if the topic is the same. Each version of the wicked problem of maintaining access to oral history will differ in the type of adaptive maintenance that is required: digitising material, acquiring copyright, updating the catalogue, sensitivity checking. What hinders the completion of this adaptive maintenance will also differ, causing the access to oral histories to fail as a result of dead links or incomplete paperwork. However, there are recurring barriers - the usual suspects - which appear across versions of this wicked problem, obstructing the completion of maintenance (adaptive or corrective): lack of flexibility, and limited resources.

Lack of flexibility

wp. 028

I interviewed the archivist who built the archive at the contemporary art gallery BALTIC in Gateshead when it first opened in the early 2000s.³⁶ He talked me through the various iterations of the online archive and the processes behind them. It is a story I became increasingly familiar with throughout my research.

wp. 029

Like the former archivist at BALTIC, when oral historians first started to develop technologies to improve the access to oral histories at the end of the twentieth century and the start of the twenty-first, there was no software that could do what the oral historians wanted it to do, so they made their own.³⁷ However, the oral historians

³⁴ Ben Lutkevich, 'AI lawsuits explained: Who's getting sued?', *TechTarget*, Jun 25, 2024, accessed Feb 6, 2025, <https://www.techtarget.com/WhatIs/feature/AI-lawsuits-explained-Whos-getting-sued>.

³⁵ Alex Danchev, and Mierle Laderman Ukeles, 'M81. Meirle Laderman Ukeles: Maintenance Art Manifesto,' in *100 Artists' Manifestos*, ed. Alex Danchev (Penguin Group, 2011), 382.

³⁶ James Louwerse, H., 2021, Recording with BALTIC archivist. SDH_PP. SDH_AI_001.

³⁷ James Louwerse, H., Oct 4, 2024, Timeline of technologies. OHD_Archive. [OHD_SPS_0310](#).

had not anticipated how their technologies would fail and, as a result, neglected their maintenance, ultimately leading to their demise. Like many others, oral historians then began looking beyond their field, outsourcing solutions and purchasing off-the-shelf materials.

wp. 030

More recently the consequences of outsourcing were sadly demonstrated by the cyber-attack on The British Library. In a blog post Simon Bowie, who had previously worked at the British Library, writes how the Library's management were not replacing IT staff when they left, and were instead increasingly outsourcing parts of the IT systems.³⁸ This led to the Library's IT maintenance team being overstretched, leaving the system vulnerable to attacks.³⁹

wp. 031

In addition to the inflexibility of digital structures, specifically outsourced ones, I also witness an inflexibility in process and policies. This was most stark with the National Trust, who do not include oral history or any other form of intangible heritage in their collection policy.⁴⁰ How this is restrictive when adaptive maintenance is needed and how I created outputs which tried to make adaptive maintenance easier can be seen in the Case Example section of this portfolio.

Limited Resources

wp. 032

Maintenance is work so it requires time and money. These are however in short supply.

³⁸ The Sound and Moving Image catalogue was powered by SirsiDynix, a company in the United States which produces integrated library system software and associated services for libraries. I can currently not prove this because the British Library's Sound and Moving Image catalogue is down, since the cyber-attack.

³⁹ Simon Bowie, 'The British Library hack is a warning for all academic libraries,' London School of Economics Blog, Mar 19, 2024, accessed Jan 7, 2025, <https://blogs.lse.ac.uk/impactofsocialsciences/2024/03/19/the-british-library-hack-is-a-warning-for-all-academic-libraries/>.

⁴⁰ National Trust, *National Collections Development Policy 2019-2024*, 2019.

wp. 033

Archives at NCBS is in a completely different position than the other organisations I worked with, because it is so young - only five years at the time of writing. As I wrote in a blog post in my first month there, 'a lot of the work is focussed on growing the archive, with some team members creating a digital catalogue, others expanding the collection, and many involved in developing the various workflows necessary to keep an archive running.'⁴¹ Although I spent most of my time at Archives at NCBS developing their takedown policy and their sensitivity checks, I also observed the work environment and practices. I was asked to facilitate their annual staff away-day, which provided an opportunity to understand the Archives' work culture. The larger questions to be explored during the away-day were:

- What is the collection policy?
- Are we going to be a resource centre?
- Are we going to be a consultancy centre?
- (The team structure)

wp. 034

During the day the staff brainstormed around the four activities of the archive: collect, educate, research, and engage. The final outcome of this activity, that I observed, demonstrates how much happens in a space like Archives at NCBS.⁴² However, within these different sections there is even more work done, as seen in the workflow I created, which maps out the process of collecting and then making something publicly accessible.⁴³ Yet, there is work absent from this workflow as it notably does not show the maintenance tasks that need to occur when a deposit is finally made in the archive.

⁴¹ James Louwerse, H., Feb 3, 2023, Blog post on the first month at NCBS, OHD_Archive. [OHD_BLG_0254](#).

⁴² James Louwerse, H., Feb 8, 2023, Miro board of the NCBS away day. OHD_Archive. [OHD_WHB_0247](#).

⁴³ James Louwerse, H., Feb 13, 2023, Miro board of the archiving workflow. OHD_Archive. [OHD_WHB_0248](#).

wp. 035

I used the framework Mierle Laderman Ukeles offers in her *Manifesto for Maintenance Art, 1969!* to help articulate how there are two systems that operate under the roof of Archives at NCBS.⁴⁴

wp. 036

My solutions to how these two systems might be handled was partially based on the final activity of the away-day, which was an exercise where the staff had to write what they would like to stop, start, and continue in the workplace.⁴⁵ Additional ideas came from my experience of working at Seaton Delaval Hall, because I noticed similarities in the respective work environments. The Hall, like Archives at NCBS, is a functioning heritage site and so there are other activities to do besides managing the collection and acquiring new material. Both also have a similar number of staff, so it felt appropriate to bring duplicate activities across the organisations, including updates of individual activities during the weekly meeting.

wp. 036

My experience at Archives at NCBS and my other placements revealed how much work is needed to keep these heritage and public history organisations operational. Fitting all the activities that make up this work into one workday is not an easy feat. So, if an activity is not valued or does not contribute as a funding output, then it is easier to sideline the task in favour of something more profitable.

wp. 037

Every archive, heritage or other public history organisation will have different funding sources. In the UK, the largest funding body is the National Lottery Heritage Fund (NLHF). The former BALTIC archivist who I interviewed mentioned they had had to wait for funding before they could update their system, which eventually came from NLHF.⁴⁶ Seaton Delaval Hall received funding from the NLHF for The Curtain Rises

⁴⁴ Danchev, and Ukeles, 'M81. Mierle Laderman Ukeles: Maintenance Art Manifesto,' 382.

⁴⁵ James Louwerse, H., Feb 13, 2023, Miro board of the archiving workflow. OHD_Archive. [OHD_WHB_0248](#).

⁴⁶ James Louwerse, H., 2021, Recording with BALTIC archivist. SDH_PP. SDH_AI_001.

project, which contained a collaboration with Northumbria University called Rising Stars.⁴⁷

wp. 038

The NLHF prefers particular types of projects, as reflected in their grant guidelines and funding decisions.⁴⁸ In a screen recording I used during a talk, I searched the NLHF website for projects that were undertaking 'development,' 'restoration,' or 'maintenance.'⁴⁹ The search revealed a focus on development and restoration, the latter of which is only necessary when maintenance fails. In *How Buildings Learn* Stewart Brand quotes John Ruskin, 'Take proper care of your monuments, and you will not need to restore them. [...] Watch an old building with an anxious care; guard as best you may, and at *any* cost, from every influence of dilapidation.'⁵⁰

wp. 039

Similarly, when I made a casual audit of oral history projects funded by the NLHF, there was little to no evidence of the recordings being archived, suggesting energy and money was put towards recording over maintenance.⁵¹

wp. 040

There are cases of maintenance activity being funded, but this is often limited to digitisation. The British Library received funding for Unlocking our Sound Heritage, which was also partially funded by the NLHF.⁵² Archives at NCBS received a grant for Arcadia, a family charitable foundation, 'to collect, preserve and make available

⁴⁷ This collaboration included the final project for my Masters in Multidisciplinary Innovation which led to the development of this PhD. See 'The Curtain Rises project at Seaton Delaval Hall,' *National Trust*, Oct 21, 2022, accessed Jan 3, 2025, <https://www.nationaltrust.org.uk/visit/north-east/seaton-delaval-hall/the-curtain-rises-project-at-seaton-delaval-hall>.

⁴⁸ National Lottery Heritage Fund, *Application Guidance*, n.d., 7, accessed Mar 13, 2025, https://www.heritagefund.org.uk/sites/default/files/media/attachments/HF%20Application%20Guidance_B_MEDIUM_v2.pdf.

⁴⁹ National Lottery Heritage Fund, *Application Guidance*, n.d., 7, accessed Mar 13, 2025, https://www.heritagefund.org.uk/sites/default/files/media/attachments/HF%20Application%20Guidance_B_MEDIUM_v2.pdf.

⁵⁰ Stewart Brand, *How buildings learn: what happens after they're built*, (Penguin, 1995), 111.

⁵¹ James Louwerse, H., Sep 25, 2023, Finding recordings. OHD_Archive. [OHD COL 0278](#).

⁵² 'British Library pledge to save the nation's sounds secures £9.5m HLF boost,' *Heritage Fund*, May 20, 2015, accessed Feb 13, 2025, <https://www.heritagefund.org.uk/news/british-library-pledge-save-nations-sounds-secures-ps95m-hlf-boost>.

online endangered cultural artefacts.⁵³ Digitisation is a rare measurable form of maintenance. Maintenance is primarily invisible as I discussed - 'The Unseen: Maintenance Labour on Heritage Sites.'⁵⁴

wp. 041

The invisibility of maintenance, or inability to be quantified, makes it an undervalued activity in capitalist society. Meaning:

wp. 042

The wicked problem of maintaining access to oral histories could arguably be solved if adaptive maintenance were consistently carried out as expectations of access change. However, this rarely happens due to rigid systems and limited resources. Both these obstacles are the product of not considering or accommodating maintenance labour. My work with the National Trust and Seaton Delaval Hall avoided this by focussing on how my work and outputs would be maintained beyond the completion of my research project.

⁵³ 'Grants awarded,' *Arcadia Fund*, n.d., ca. 2022, accessed Feb 13, 2025, <https://arcadiahfund.org.uk/grants-awarded?recipient=%5B%22national-centre-for-biological-sciences%22%5D#grant-list>.

⁵⁴ James Louwerse, H., May 25, 2022, The Unseen: Maintenance Labour on Heritage Sites. OHD_Archive. [OHD PRS 0120](#).

The Case Example

ce. 001

Action research 'consists largely of case studies.'¹ Admittedly, what I conducted was not a formal case study, but this section presents my work with my collaborative partner Seaton Delaval Hall and by extension the National Trust. This work with the Hall and the Trust ran throughout my research project, and so they produced the most comprehensive outputs in relation to the issue of maintaining access to oral histories.

ce. 002

I address the National Trust and Seaton Delaval Hall separately to demonstrate the wicked problem on different scales. The National Trust offered a more top-down view of the situation, requiring me to consider how to manage the issue of maintaining access to oral history across a wide variety of similar, but still different scenarios. The Hall offered a view from ground-level, and gave me the opportunity to observe the issue of maintaining access to oral history up close. When I combined and contrasted these two bodies of experience and knowledge, it revealed a tension between formalised standards set by the Trust and the need for a more flexible approach on site level for local staff to adapt and adopt as they see fit.

ce. 003

I would like to emphasise (again) the particulars of the situation will not apply to every version of the wicked problem of maintaining access to oral history, however it does demonstrate a method of working with oral history which can be utilised by others.

The National Trust

ce. 004

This Trust focussed section considers the (lack of) collection policy, the current advice given to those who wish to run an oral history project, and the existing

¹ Robert Sommer, and Barbara Baker Sommer, *A Practical Guide to Behavioral Research: Tools and Techniques*. 5th ed., (Oxford University Press, 2002), 215.

collection of National Trust oral history recordings, which is housed at the British Library.

ce. 005

This section looks at my collaboration with the staff and volunteers at Seaton Delaval Hall. The Hall is relatively new to the National Trust family and therefore is a blank slate for designing, especially because there were no oral history recordings related to the site until my project.² I have also included my work on the Hall's Research Room as this provided great insight into the systems and processes of the Hall.

² I found one recording on the Hall's SharePoint which the majority of the staff were unaware of because it was recorded ten years ago.

The National Trust

nt. 001

There is no stable presence of oral history at the National Trust. The Trust's relationship with oral history has been inconsistent, shaped by individuals over the past few decades who have taken a particular interest in it. I observed this fragmentation across three aspects of the Trust: the oral history advice, the staff's attitude, and the archive of oral history. In this section I will go through each aspect and then explain how these observations, in combination with my experience recording oral history at Seaton Delaval Hall, created two outputs: a guide and a report.

nt. 002

Below is a flowchart I made during my placement at the British Library. As this was my last placement, I had already gained experience and knowledge from the previous two.¹ The flowchart depicts the various stages of making an oral history accessible within the context of the Trust and the British Library. When compared to the Trust's internal oral history guide, it reveals gaps in the guide, such as interim storage, sensitivity checks, or what steps to follow if an old recording is found.² Clear up-to-date information on oral history processes, including the handling of oral history recordings and associated materials, is not currently available to Trust staff and volunteers. I communicated these discrepancies in a summary of my experience recording oral history for Seaton Delaval Hall to the national lead of oral history at the Trust and the head of collections management.³

nt. 003

The staff's attitude toward oral history became clear to me during a workshop at the National Trust Northern Collections and Interiors Forum in York, which my Trust

¹ I had actually already made a flowchart for Archives at NCBS. See James Louwerse, H., Feb 13, 2023, Miro board of the archiving workflow. OHD_Archive. [OHD_WHB_0248](#).

² Gillian Grigg, *A guide to setting up a National Trust Oral History Project*, ed. Oonagh Kennedy and Anne Gatward.

³ James Louwerse, H., Oct 27, 2022, NT oral history experience. OHD_Archive. [OHD_WRT_0177](#).

supervisor Jo Moody invited me to lead.⁴ The aim was to have an open discussion about oral history and gauge the collection staff's understanding of oral history. The participants had various degrees of familiarity with oral history, but once we started discussing the ins and outs of conserving and maintaining it, they had more questions than answers.

nt. 004

Where the Trust's inconsistent relationship with oral history is most evident, is within the Trust's sound collection. This collection includes all the Trust's oral histories, and is housed at the British Library. During the summer of my first year, I put every entry in the National Trust sound collection from the British Library's catalogue into a spreadsheet.⁵ It revealed the many different oral history projects that had taken place, the varying scopes of these projects, and the differing levels of organisation, the latter of which was reflected in the various indexing styles.

nt. 005

I conducted a more thorough audit of the Trust's collection, as well as listened to some of the recordings during my placement at the British Library in the late spring of 2023. I audited the uncatalogued material and went through the entire collection to see which recordings had the correct up to date copyright permissions.⁶

nt. 006

My work at the British Library led to the creation of a three month postgraduate placement.⁷ This placement was a pilot project which included collaborating with the staff at a specified Trust site. The aim was to develop a workflow that would help the staff at other sites obtain the required copyright for recordings or, otherwise, allow the recordings to be registered as orphan works. As I was the person who was the most familiar with the collection, having gone through it every entry several times, I was tasked with finding sites that would be a good fit for this collaborative pilot.

⁴ James Louwerse, H., Oct 27, 2022, NT Oral History Workshop. OHD_Archive. [OHD_WKS_0208](#).

⁵ James Louwerse, H., Jun 9, 2021, National Trust collection at British Library. OHD_Archive. [OHD_SPS_0161](#).

⁶ James Louwerse, H., Jun 22, 2023, C1168 Audit 2023. OHD_Archive. OHD_COL_0262; James Louwerse, H., May 23, 2023, C1168 uncatalogued items. OHD_Archive. [OHD_WRT_0276](#).

⁷ James Louwerse, H., Jun 21, 2023, NT property recommendations for PhD placement. OHD_Archive. [OHD_RPT_0263](#).

nt. 007

This audit and the subsequent internship revealed how there was no consistent approach to oral history across the Trust, and how little energy is given to maintain access to these recordings once archived, which renders certain project outputs unusable. This is not a surprising outcome, as responsibility for maintaining this oral history collection is not explicitly clear. The Trust handed over their collection but arguably in an incomplete form given the missing copyright, which could realistically only be obtained by Trust staff and volunteers, since they are the ones closest to the communities from which the recordings were taken. There is also an assumption that the Library has the capacity to look after all these recordings.⁸ An assumption that might be incorrect, considering the Library was hacked in October 2023 and the Sound and Moving Image Archive has still not returned online, at the time of writing.⁹ Even before the cyber attack there was no public access to the Trust's sound collection, hence the title of my initial report - Play this (at British Library only).¹⁰

nt. 008

The disjointedness illustrated above is part the result of the Trust not including oral history in its collection policy. While I was doing my placement at Seaton Delaval Hall, I was able to witness the acquisition of an architectural drawing of the mausoleum with its original roof, before it was stolen. My National Trust supervisor showed me the Trust's Collection Management System (CMS), the acquisition forms, and the Trust's collection policy. None of these accommodate the acquisition of intangible or digital heritage, which includes oral history. The policy only discusses 'objects' and only material objects are allowed to be entered into CMS, under either the collection or the objects which have a functioning role on the site, such as chairs for the room guides to sit on.¹¹ The acquisition forms are primarily focussed on the monetary value of acquired objects.

⁸ James Louwerse, H., Apr 22, 2021, A Spanner, a Chat and a Gang. OHD_Archive. [OHD_BLG_0063](#).

⁹ Dead link at time of writing: <https://sounds.bl.uk/>. See also: 'National Life Stories (NLS),' *British Library*, n.d., accessed Mar 12, 2025, <https://www.bl.uk/nls/>; James Louwerse, H., Dec 4, 2023, British Library down. OHD_Archive. [OHD_SSH_0313](#).

¹⁰ James Louwerse, H., Aug, 2021, Play this (at the British Library only). OHD_Archive. [OHD_RPT_0132](#).

¹¹ National Trust, *National Collections Development Policy 2019-2024*, 2019, 6.

nt. 009

The Trust is in an odd situation as it simultaneously has one of the largest oral history collections in the country while lacking a dedicated policy for its collection. I saw this as an opportunity, because after completing my placement at the British Library I probably was one of the most, if not *the* most, familiar with the collection, meaning I was best positioned to explain the value of oral history to the Trust. I wrote about this in a blog post for the British Library, which sadly was never published because of the cyber attack in October 2023.¹² And I also presented a poster at the National Trust Postgraduate Research Day 12th June 2023.¹³

nt. 010

I brought all of my ideas, knowledge, and experience in a three-hour online workshop about oral history at the National Trust. The workshop was in three sections: past, present and future, and was open to the Trust staff and volunteers. As with my earlier interactions with Trust staff and volunteers, there were varying levels of familiarity with oral history accompanied by enthusiasm for oral history as a method and source, as was evident in the questionnaires I sent out prior to the workshop.¹⁴ There was some anxiety around data protection and oral histories, with some participants worrying that the effort to record and manage oral histories ethically may not be worth the stress and time. The workshop was an opportunity to present my findings and ideas to my stakeholders one more time before creating my final research outputs.

nt. 011

After the workshop I developed my final two outputs: the status report of oral history at the National Trust¹⁵ and a new guide to oral history.¹⁶

¹² James Louwerse, H., Sep 5, 2023, The Trust: stories of a nation. OHD_Archive. [OHD_WRT_0273](#).

¹³ James Louwerse, H., May 25, 2023, Oral history at the National Trust Poster. OHD_Archive. [OHD_GRP_0260](#).

¹⁴ James Louwerse, H., Jan 22, 2024, Oral History at the National Trust – Pre Workshop. OHD_Archive. [OHD_FRM_0326](#)

¹⁵ James Louwerse, H., Aug 16, 2024, NT OH report. OHD_Archive. [OHD_RPT_0298](#).

¹⁶ James Louwerse, H., Aug 16, 2024, NT OH guide. OHD_Archive. [OHD_DSN_0299](#).

nt. 012

Part of me wanted to resist creating a guide to oral history as I felt that, like the current Trust oral history guide, it would soon become out of date. This is why I briefly toyed with the idea of making something dubbed 'the NOT how-to guide.'

In the end I made sure the advice given in my final guide was open and flexible. I emphasised the importance of networking and collaboration, and overall working towards a wider culture of oral history at the Trust.

Seaton Delaval Hall

sdh. 001

My work with Seaton Delaval Hall can be divided into two parts. The first is the oral history pilot project which ran through my research period, and the second is my design of the Research Room at the Hall during my three-month placement in the summer of 2022. From these two activities I identified the opportunities and obstacles of recording and using oral histories within the particular setting of a heritage site, Seaton Delaval Hall. My presence at the Hall led the staff to become more familiar with oral history and the wicked problem that surrounds it. They also helped me in my work, and I helped them with theirs, from unloading easter eggs to digitising cassettes to advising on copyright.¹ Together with some members of the Hall's staff, I completed my residency by developing an oral history strategy for them to follow in the future.

Recording Oral Histories

sdh. 002

I recorded my interviews under the auspices of Newcastle University. This was initially because it seemed the most logical option. I later learned that if I had recorded under the National Trust, I would have faced a different set of ethical and logistical challenges. For instance, the IT office opposed storing WAV files on SharePoint due to their large size and carbon footprint, while the Data Protection Office insisted on using SharePoint for data security reasons.

Following digital storage rules (given to me by the archivist at BALTIC in 2021) I kept my recordings in three different places: two hard drives, one of which I kept at home, and Microsoft Teams.

¹ James Louwerse, H., Apr 24, 2024, Email about copyright. OHD_Archive. [OHD_SSH_0309](#).

sdh. 003

After each recording, I wrote a detailed summary for the participant to review. I recorded twelve oral histories and spent most of the time sorting out the copyright, which proved to be a challenge. The first obstacle in obtaining copyright was creating the appropriate copyright form. I had been given permission from the oral history archivist at the British Library to donate my recordings to the local Northumberland Archives. However, this meant I could not use the National Trust's standard copyright form because this ascribes copyright jointly to the British Library and the Trust. I therefore needed to make my own copyright form, and as I was not an expert on oral history or archival copyright I used existing forms as inspiration.² I then sent my first draft of the agreement to the archivist at Northumberland Archives and attempted to seek contact with the head of copyright at the Trust. The former approved while the latter, after my Trust supervision emailed them multiple times, replied that this was not the kind of copyright they dealt with.

sdh. 004

The second obstacle was getting people to sign the copyright, something many oral historians experience. I was fortunate to have help from the Hall's team, specifically the Volunteering Officer, who proved essential to securing copyright.

sdh. 005

I concluded the oral history pilot project with a listening party at the Hall one evening in the summer of 2024,³ inspired by the listening parties oral historians organise as a way to engage the wider community beyond the interviewees.⁴ Various volunteers and staff members, some who I had recorded and some who I had not, came to listen to audio extracts and have a discussion about the content. It was lovely and had a surprisingly high turnout. I asked audience members to write about why they attended and what they took away from the experience.⁵

² James Louwerse, H., Sep, 2022, Copyright and reuse forms. OHD_Archive. [OHD_FRM_0226](#).

³ James Louwerse, H., Aug 7, 2024, Listening session audios. OHD_Archive. [OHD_AUD_0295](#).

⁴ Joseph Plaster, 'Safe for whom? And whose families? Narrative, urban neoliberalism, and queer oral history on San Francisco's Polk Street,' *The Public Historian* 42, no. 3 (2020): 86-113; Elspeth H. Brown, and Myrl Beam, 'Toward an ethos of trans care in trans oral history,' *The Oral History Review* 49, no. 1 (2022): 29-55; Amy Starecheski, 'South Bronx soundwalks as embodied archiving practice,' *Oral History* 48, no. 2 (2020): 102-112.

⁵ James Louwerse, H., Aug 7, 2024, Feedback from listening session. OHD_Archive. [OHD_PST_0289](#).

sdh. 006

Before the listening session, I had also put together a soundwalk with the recordings which I shared with my Trust supervisors to help them imagine the outputs they might produce from the oral history recordings.⁶ Many of the same extracts I used for the listening session.

sdh. 007

The final archiving process entailed me donating the audio to Northumberland Archives and uploading my files to the Seaton Delaval Hall SharePoint. When doing this I made sure the Hall received MP3 and WAV versions of the recordings, and that the indexing spreadsheet adhered to the British Library one. This would make transferring the oral histories easier in case staff at the Hall decide they do want a copy at the British Library.

The Research Room

sdh. 008

During my three-month placement at Seaton Delaval Hall in the summer of 2023, I was tasked with designing the Research Room. This was a space in the Hall that would allow people to access the vast amounts of non-collection worthy material, which had been accumulated over the years.⁷ In many ways I had to start from scratch, first working out what would go into the Research Room, what kind of spaces there would be, and then creating the forms and processes to make everything work.

sdh. 009

Because I was working from scratch I used design fictions to help myself imagine the process of donating and using the Research Room.⁸ Design Fiction, a term coined by the science fiction writer Bruce Sterling,⁹ is used 'predominantly as an object for

⁶ James Louwerse, H., Nov 3, 2022, Prototype for the Seaton Delaval Hall Oral History Trail. OHD_Archive. [OHD_PRT_0199](#); James Louwerse, H., Oct, 2022, The first draft design of the Seaton Delaval Hall sound walk. OHD_Archive. [OHD_DSN_0225](#).

⁷ See the [National Trust](#) section for why there is non-collection material.

⁸ James Louwerse, H., Aug 20, 2022, Design Fiction Research Room. OHD_Archive. [OHD_DSF_0182](#).

⁹ Bruce Sterling, *Shaping Things*, (The MIT Press, 2005).

interrogation, from which other iterations may follow, that in the end inform a design brief.’¹⁰ It is a tool intended to help an observer understand a situation without having to interfere directly with the situation, which was perfect for my work as the Hall's staff wanted to avoid over-promising.¹¹ The design fiction below allowed me to imagine the processes of the Research Room in its finer detail.

sdh. 010

What I realised through this design fiction was the way in which the particulars of the Research Room’s structure and process would be shaped by how the material is classified. I therefore made various iterations of a flowchart which allowed me to map the different items that people could donate and the accompanying paperwork and processes that would allow the donated item to be made accessible in the Research Room.¹²

sdh. 011

From these flowcharts I was then able to create prototype forms for the staff and volunteers to use. This included donation agreements, copyright assignment, and researcher agreements.¹³ Once I had shared and received feedback on the drafts, I was able to finalise the forms with a design similar to the Trust's existing acquisition forms.¹⁴

sdh. 012

Finally, I created a guide to the Research Room, leaving certain areas blank, as I felt I lacked the authority to decide what should or should not happen.¹⁵

¹⁰ Tony Fry, *Writing design fiction: Relocating a city in crisis*, (Bloomsbury Visual Arts, 2022), 2.

¹¹ See [The Practice](#) section for more on this.

¹² James Louwerse, H., Sep 8, 2022, Research Room Donation Flowchart. OHD_Archive. [OHD_DSN_0158](#).

¹³ James Louwerse, H., Sep 16, 2022, Donation Form and examples. OHD_Archive. [OHD_FRM_0189](#); James Louwerse, H., Oct 3, 2021, Archive Donation Acceptance Form. OHD_Archive. [OHD_FRM_0190](#); James Louwerse, H., Sep 29, 2022, Research Room Donation Acceptance Form. OHD_Archive. [OHD_FRM_0191](#).

¹⁴ James Louwerse, H., Oct 31, 2022, Research Room Acquisition Copyright form. OHD_Archive. [OHD_FRM_0192](#); James Louwerse, H., Oct 25, 2022, Research Room Acquisition Proposal. OHD_Archive. [OHD_FRM_0193](#); James Louwerse, H., Nov 1, 2022, Research Room Agreement. OHD_Archive. [OHD_FRM_0194](#).

¹⁵ James Louwerse, H., Oct 31, 2022, Research Room Guide. OHD_Archive. [OHD_RPT_0195](#).

The Oral History Strategy

sdh. 013

Near the end of my project, I set up a final workshop with the staff at Seaton Delaval Hall. The aim of the workshop was to see how the staff would proceed with oral history once I had finished my PhD. I created a slideshow based on the various stages of oral history recording which I had identified over my studies. The attendees were asked during the workshop to fill in the blank spaces to create the foundations of a plan. As the workshop participants expressed in their feedback forms, certain sections of the slideshow were left blank because, much like my experience writing the guide to the Research Room, they either felt unable to fill in those specific sections or did not see the need to go into detail at that moment.¹⁶ However, the overall feeling after the workshop was that they felt confident in integrating oral history into their existing processes. I ultimately condensed the workshop insights into a final oral history strategy for the Hall.¹⁷

¹⁶ James Louwerse, H., Jul 1, 2024, SDH OH questionnaire. OHD_Archive. [OHD_FRM_0303](#).

¹⁷ James Louwerse, H., Aug 5, 2024, SDH oral history strategy. OHD_Archive. [OHD_RPT_0296](#).

Critical Commentary

Introduction

Imagine: it is 23 July 1973. You are standing at the bottom of a stone staircase that leads to a museum. Out of the entrance strolls a woman carrying a bucket and a mop. She stops, tips the bucket of water and starts to scrub the stone steps one at a time.

This scene is the artist Mierle Laderman Ukeles performing her art piece *Washing/Tracks/Maintenance: Outside* at the Wadsworth Atheneum Museum of Art in Hartford, Connecticut. Ukeles, a feminist performance artist whose work is themed around maintenance and service work, was the first artist-in-residence at the New York City Department of Sanitation.¹ Before this residency and her performance at the art museum, she produced her radical *Manifesto for Maintenance Art 1969!*, an indictment born out of frustration with the art world's failure to engage with the routine labour of everyday life, including the toils of (her) motherhood.² In her subsequent work with the New York Department of Sanitation, Ukeles expanded this idea of maintenance labour beyond the domestic to the many essential, yet overlooked, maintenance jobs in wider society.

In her manifesto Ukeles argues that the world is split into a 'development system' and a 'maintenance system.' Ukeles considers the maintenance system 'the life instinct' with its aim to 'preserve the new; sustain the change; protect progress' or, to put it in more simple terms, to keep things going. The development system – the creation of things – is 'the death instinct', according to Ukeles, a drive that focuses on 'pure individual creation; the new; change; progress.' Within this stark opposition, the maintenance system carries less social status: maintenance is seen as repetitive, boring, and endless or, as Ukeles puts it, 'a drag.' The development system on the other hand is 'excitement!' Ukeles poignantly summarises the

¹ Alex Danchev, and Mierle Laderman Ukeles, 'M81. Mierle Laderman Ukeles: Maintenance Art Manifesto,' in *100 Artists' Manifestos*, ed. Alex Danchev (Penguin Group, 2011), 381; Mierle Laderman Ukeles, 'On Artists and Garbagemen,' in *The Book of Beautiful Business*, ed. Megan Hustad with Nina Kruschwitz, Tim Leberecht (The Business Romantic Society, 2019), 253-255; Alexandra Schwartz, 'Mierle Laderman Ukeles in conversation with Alexandra Schwartz,' in *From conceptualism to feminism: Lucy Lippard's numbers shows 1969-74*, ed. Cornelia H Butler, Pip Day, Peter Plagens, Griselda Pollock, Caroline Tisdall, Antony Hudek, Jo Melvin, and Alexandra Schwartz, (Afterall Books, 2012), 283.

² Danchev, and Ukeles, 'M81. Mierle Laderman Ukeles: Maintenance Art Manifesto,' 382.

dynamic between these two systems as follows: 'After the revolution, who's going to pick up the garbage on Monday morning?'³

I first came across Ukeles' work in 2015 during my BA Fine Art at Goldsmiths, University of London. Years later I was reminded of her work in a blog post by Charlie Morgan, an oral history archivist at the British Library. In his blog post Morgan discusses various issues arising from the large number of recordings being made during the first year of the COVID-19 pandemic. Morgan's main concern was the emotional consequences of recording oral history during this turbulent period, arguing that oral history interviews should not be used as a form of therapy and objecting to oral history being used to document traumatic experiences. He draws on Ukeles' framework of a development and maintenance system to call for a better understanding of 'the "work" of oral history' up to and including what happens when the recording is finished. Morgan adapts Ukeles' pivotal question when he substitutes 'revolution' with 'interview' to wonder who picks up the garbage 'after the interview?'⁴

'After the interview'

What happens after the interview is the focus of this research project. The initial aim of my proposal was to explore methods to encourage visitors of heritage sites to reuse oral history.⁵ My specific case study was the National Trust property Seaton Delaval Hall, an eighteenth-century country house near the north-eastern coast of England. It was acquired by the National Trust, Europe's biggest conservation charity, in 2009 after a large fundraising campaign by the local community.⁶ Designing solutions to improve the reuse of oral history proved a confusing challenge. At first glance, the assignment may appear relatively straightforward, but closer inspection soon showed that it was based on preconceptions, paradoxes, and contradictions. In his paper, 'Three Dimensions and More: Oral History Beyond the

³ Ibid.

⁴ Charlie Morgan, 'When the crisis fades, what gets left behind?', *Oral History Society*, n.d., ca. 2021, accessed Jan 4, 2025, <https://www.ohs.org.uk/general-interest/when-the-crisis-fades-what-gets-left-behind>.

⁵ James Louwerse, H., Feb 24, 2021, Project Plan. OHD_Archive. [OHD_WRT_0163](#).

⁶ 'Seaton Delaval Hall,' *National Trust*, n.d., accessed Jan 3, 2025, <https://www.nationaltrust.org.uk/visit/north-east/seaton-delaval-hall>.

Paradoxes of Method,' Michael Frisch, in 2008 described the reuse – or lack thereof – of oral histories as 'the Deep Dark Secret of oral history,' since 'nobody spends much time listening to or watching recorded and collected interview documents.'⁷

Nearly two decades ago, Frisch identified three paradoxes of oral history: 'the paradox of orality,' 'the paradox of searching,' and 'the paradox of method.'⁸ In 2025, some of his perceived paradoxes have become less pressing and others more so. Frisch's 'paradox of orality', for example, includes oral historians' habit of using transcripts rather than the original audio recording.⁹ The transcripts versus audio is a longstanding debate within oral history, with Raphael Samuel commenting on it as early as 1972 in his paper, 'Perils of the Transcript.'¹⁰ However, since 2008 using audio has not only become easier but also more common due to a wider cultural shift towards audio and visual media through the development of video-based social media such as Instagram, Snapchat, and Tiktok, and the rise of the video podcast on YouTube. On the other hand, Frisch's 'paradox of searching' – how 'contemporary search tools are producing a significant decline in research skills' –¹¹ has only become more acute over the decades. Advancing digital technologies, including Generative Artificial Intelligence, now possess the ability to transcribe, search, and summarise audio far beyond the capabilities of the search engines Frisch originally examined. Nevertheless, Frisch (among others) was convinced that the key to increasing oral history reuse, despite these paradoxes, lay in the right application of cutting edge technologies available at the time.¹² Yet, as I will argue below, the projects which sought to improve reuse through new technologies, consistently failed to recognise the crucial role of 'the drag' maintenance.

Frisch's third paradox, the 'paradox of method', includes the persistent focus on *producing* rather than *reusing* oral histories, which he declares as peculiar given the

⁷ Michael Frisch, 'Three Dimensions and More: Oral History Beyond the Paradoxes of Method,' in *Handbook of Emergent Methods*, ed. Sharlene Nagy Hesser-Biber and Patricia Leavy, (The Guilford Press, 2010), 223.

⁸ Ibid., 221.

⁹ Ibid., 223.

¹⁰ Raphael Samuel, 'Perils of the Transcript,' *Oral History* 1, no. 2 (1972), 19-22.

¹¹ Frisch, 'Three Dimensions and More: Oral History Beyond the Paradoxes of Method,' 224.

¹² Ibid., 225.

majority of historical methods centre around studying primary and secondary sources, not the production of sources.¹³ The drive to add to existing archives hardly comes as a surprise since oral history as a discipline sprung from a need to diversify the archive. The archive as a neutral and reliable record of historical facts needed both questioning and actively counteracting by adding overlooked voices, groups, positions. In some regions this involved adding the voices of the original population, such as in South America, Australasia, and North America. The historiographical narrative suggests that in Europe the focus for recording was more on non-elite groups, such as the working class and women.¹⁴ The preoccupation with recording is almost universal and is evident in UK organisations, including National Life Stories, the charity embedded within the oral history department of the British Library. The charity states that, 'its key focus and expertise has been oral history fieldwork and for thirty years it has initiated a series of innovative interviewing programmes.'¹⁵

In addition to a fixation with recording, Joanna Bornat in her work on archived oral history data identified a 'discomfort' around reuse. She attributes this, in part, to oral history's connection with the social sciences where it is common practice to destroy data sooner than archiving for future use.¹⁶ However, the focus on recording and a discomfort with reuse does not mean there is no reuse at all. Beyond academic practices, there is a clear appetite for forgotten voices and stories, leading to increasing numbers of historical book series that unproblematically draw on oral histories from a variety of different archives.¹⁷ Furthermore, it is argued that the academy's turn to memory heightened interest in people's personal memories, making archived oral histories a central source of study.¹⁸

¹³ Ibid., 223.

¹⁴ Graham Smith, 'Introduction,' in *Oral History: Critical Concepts in Historical Studies. Collecting. Vol. 1.* ed. Graham Smith (Routledge, 2017), 1-20.

¹⁵ 'The National Life Stories Collection,' *Charity Commission*, n.d., ca. Dec 31, 2023, accessed Jan 9 2025, <https://register-of-charities.charitycommission.gov.uk/en/sector-data/top-10-charities/-/charity-details/327571>.

¹⁶ Joanna Bornat, 'Crossing Boundaries with Secondary Analysis: Implications for Archived Oral History Data,' *ESRC National Council for Research Methods Network for Methodological Innovation*, (University of Essex, 2008).

¹⁷ See the *Forgotten Voices of...* series. Waterstones search [result](#), accessed Jan 3, 2025.

¹⁸ Almut Leh, "'The answer is 42" – When Algorithms Take over Digital Memory. Experiences with Artificial Intelligence in the Archive Deutsches Gedächtnis,' in *Von Menschen und Maschinen: Mensch-Maschine-Interaktionen in digitalen Kulturen*, ed. V. Selin Gerlek, Sarah Kissler, Thorben Mämecke, Dennis Möbus, (Hagen University Press, 2022), 173.

In spite of easier access and a general increase in reuse, adding new recorded material is still the preferred activity. The focus on 'what happens after', – digital hygiene, data protection, storage and accessibility issues, in other words, maintenance – is still regarded as the less significant activity. Yet access is a prerequisite for reuse. Many recordings produced by National Lottery funded projects, for example, are remarkably difficult to find.¹⁹ Throughout my project, when I asked oral historians where their collected oral histories were stored, I was often met with guilty mumblings as they admitted the recordings were gathering dust on a private hard drive. Most significantly perhaps, at the time of writing, the British Library sound collections remain inaccessible due to a cyber-attack which took place in October 2023.²⁰ This is however not an issue of *reuse*, but an issue of *access*.

The initial idea of my project was built on the assumption that access to oral history was stable and consistent, and that I could concentrate on optimising the reuse of oral history. However, I soon realised that the period 'after the interview' should stretch to cover thinking about reuse *and* maintenance. The latter currently largely escapes the consideration of oral historians – myself included, at least initially – because maintenance is taken for granted. This insight, combined with the re-acquaintance with the work of Mierle Laderman Ukeles, led me to change the focus of my research: from stimulating reuse to maintaining good quality access to oral histories.

Impact on Design

This shift in perspective led to an important change in the approach of my design process too. I now aimed to create a better understanding of how we maintain access to oral histories using design methods, rather than designing something clever and new to encourage greater reuse. Christopher Frayling in his seminal paper, 'Research in Art and Design,' discusses three ways in which design relates to research. Based on the work of Herbert Read he distinguishes: research *into* design; research *through* design; and research *for* design. Research by practice projects

¹⁹ James Louwerse, H., Sep 25, 2023, Finding recordings. OHD_Archive. [OHD_COL_0278](#).

²⁰ 'British Library hack: Customer data offered for sale on dark web,' editorial, *BBC* Nov 27, 2023, accessed Mar 11, 2025, <https://www.bbc.co.uk/news/entertainment-arts-67544504>.

such as the one in hand, according to Frayling, should be led by the principles of research through design (RtD). Broadly speaking RtD covers material research, development work, and action research.²¹ The latter, action research or AR, is the central methodology for my project. The central tenets of AR are practical research and contextualisation aimed at communication through a portfolio and a report. Communication through 'the activities of art, craft or design' is key.²²

My AR took the form of three shorter research placements and a three-year oral history project. The longer running oral history project took place at Seaton Delaval Hall, a National Trust country house in Northumberland. The three placements were at the archives of the National Centre for Biological Studies (Archives at NCBS) in Bengaluru, India; at the British Library in London; and with Seaton Delaval Hall, the same location as my oral history project. The three research placements and the longer oral history project provided the opportunity to include the staff and volunteers at the various institutions as 'active participants' in my work.²³ As 'active participants,' they were the ones leading the conversation, while I took on the role of 'friendly outsider' who asked questions with the support of explanatory and exploratory design artefacts.²⁴ These artefacts varied from flowcharts to short animations to mock-ups of permission forms. They stimulated dialogue by either presenting the existing situation in a novel way or by developing alternative futures through open and often playful exchanges. The conversations with the 'active participants' allowed everybody involved, including myself, to lay bare and explore the invisible and taken for granted aspects of maintenance as well as to identify opportunities for delicate design interventions, each in their own, specific, context.

I framed maintaining access to oral histories as a 'wicked problem.' A *wicked problem* is a staple term in design theory formally established by Horst Rittel and

²¹ Christopher Frayling, 'Research in Art and Design,' in *Royal College of Art Research Papers* 1, no. 1 (1993/4), 5.

²² Ibid.

²³ Davydd Greenwood, and Morten Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, (Sage Publications, 2007), 75; Robert Sommer, and Barbara Baker Sommer, *A Practical Guide to Behavioral Research: Tools and Techniques. 5th ed.*, (Oxford University Press, 2002), 212.

²⁴ Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 125.

Melvin Webber in their 1973 paper, 'Dilemmas in a General Theory of Planning.' Broadly the term refers to stubborn and complex societal problems.²⁵ Rittel and Webber position their definition of the wicked problem in opposition to the received scientific and linear perception of problems and problem solving, in which a problem is defined and demarcated before a solution is found. A wicked problem resists this linear approach and is solved only in a *non-linear* manner: both the problem definition and possible solutions are developed simultaneously.²⁶ This approach is central to what RtD and AR involves: conducting a continuous conversation between the designer, the people inside the design situation, and the situation itself.²⁷ Translated into the terms of this project, the conversations were between me and my colleagues at the placement organisations, focused on the wicked problem of maintaining access to oral histories. This non-linear way of working lent itself well for my research into maintenance: the invisibility and taken for granted nature of maintenance meant new information was continuously uncovered throughout the project, which required me to reflect again and again on my interpretation of the problem and hence on my proposed interventions.

My placements in India and London and my in-depth work at Seaton Delaval Hall and the National Trust, revealed two main culprits of the situation's wickedness. The first is how the digital revolution has altered public expectations of access to information, including archival material. Systems that grant access to oral histories need to be adapted to ensure these new expectations of instant digital remote access are met. This is a form of maintenance known in software engineering as adaptive maintenance, where a system is updated in reaction to changes in its environment.²⁸ The second component of wickedness is formed by the obstacles that block the required maintenance from happening: rigid organisational or hierarchical structures and, above all, limited resources.

²⁵ Horst Rittel, and Melvin Webber, 'Dilemmas in a General Theory of Planning,' *Policy Sciences* 4, no. 2 (1973): 155-169.

²⁶ *Ibid.*, 156.

²⁷ Donald Schön, *The Reflective Practitioner*, (Routledge, 2016), 76.

²⁸ E. Burton Swanson, 'The dimensions of maintenance,' in *Proceedings of the 2nd international conference on Software engineering*, ed. Raymond T. Yeh and C. V. Ramamoorthy, (IEEE Computer Society Press, 1976), 494.

Rittel and Webber argue that there is a 'no stopping rule' with wicked problems.²⁹ There is no clear or inevitable moment at which the problem can be considered as solved. This means that the components of wickedness I identified during my research will be different from components of wickedness in the future. Because there is no clear end moment of a wicked problem, there is equally no end to the number of solutions, 'solutions to wicked problems are not true-or-false, but good-or-bad' meaning the problem can never really truly be solved.³⁰ The inevitable conclusion is that I cannot design something which will solve the wicked problem of oral history access and reuse *ad infinitum*. However, while design desires to fix the world and create new and better futures, maintenance wants to simply ensure that there is a future. Maintenance is the 'life instinct.'³¹ It accepts that the same work will need to be done tomorrow and the day after. I decided to embrace Ukeles' plea to recognise the prerequisite nature of the 'life instinct' and chose to design with a maintenance mindset.

With a keen eye for the unique situations of each of the placement organisations I was working with, I aimed to create outputs that allow space for adaptive maintenance despite the obstacles I had repeatedly witnessed. I have dubbed this 'wicked maintenance', a form of maintenance that accepts that there will always be new developments that require adaptations (the unsolvability of wicked problems), but that should not inhibit the striving for outputs that seamlessly integrate into existing systems. It is a form of maintenance-oriented design that does not chase the revolution but focuses on 'after the revolution.'

The combination of oral history and design within one research project is uncommon. Yet it proved to be a fruitful match. With oral history as my subject I was able to understand how maintenance can function as a form of design. From oral history's relationship with digital technology to the ethics of reuse to how it fits within pre-existing ideas of history and heritage, the wicked problem of accessing and reusing oral history underlines not only the crucial significance of maintenance, but equally how society values maintenance and the experience of maintenance labour today.

²⁹ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 162.

³⁰ Ibid.

³¹ Danchev, and Ukeles, 'M81. Mierle Laderman Ukeles: Maintenance Art Manifesto,' 382.

This critical commentary contributes to the fields of oral history, design, and public history and heritage, not only because it is a multidisciplinary project, but also because maintenance is a universal and essential form of labour across all disciplines. The text consists of three parts. The first part contextualises my practice within the fields of both oral history and design, with a specific focus on how maintenance addresses a gap in these respective areas. The second part describes my methods and practice. And the last part discusses my findings and outlines my contribution to knowledge. Following the practice of AR, this commentary should be read in close conjunction with my portfolio of practice.

Part One: Context

With this section I wish to position my work both within the field of oral history and design. I will do this by looking at how maintenance has been discussed in these respective fields (if at all). And where my maintenance oriented project might offer a new perspective in the conversations about oral history reuse, and sustainable and ethical design.

Oral History and Technical Failures

'To invent the sailing ship or steamer is to invent the shipwreck.

To invent the train is to invent the rail accident of derailment.

To invent the family automobile is to produce the pile-up on the highway.³²

The story of access to oral history is the story of technology. This is not because oral history would not exist without audio technology, analogue or otherwise. The written recording and use of oral testimonies in constructing biographical accounts predates audio and video recording.³³ It is the story of technology because contemporary oral historians have chosen to tie their work to technology through all its iterations for multiple reasons. This should not come as a surprise. Audio technology, and now more frequently video technology, captures the 'orality' and 'performance' of oral history interviews, and the internet allows anyone to disseminate oral history to a global audience. Long gone are the days of the cassette player. While the interconnectedness of oral history and technology is not the central focus of my research, I do want to examine how the history of the technologies used to improve access to oral history reveals opportunities, assumptions, and the repetition of errors that are in part driven by an over attachment to new technologies. More significantly, I seek to expose how Ukeles' question 'after the revolution, who's going to pick up the garbage on Monday morning?'³⁴ still remains pertinent and how chasing the next 'hot' technology has left accessibility in the cold.

³² Paul Virilio, *The Original Accident*, (Polity, 2007), 10.

³³ Shelley Trower, *Sound Writing: Voices, Authors, and Readers of Oral History*, (Oxford University Press, 2023), 17-39.

³⁴ Danchev, and Ukeles, 'M81. Mierle Laderman Ukeles: Maintenance Art Manifesto,' 382.

In his paper, 'Messiah with the Microphone? Oral Historians, Technology, and Sound Archives,' Rob Perks provides a history of oral historians' adoption of recording technology, which he notes started with wax cylinders and then progressed onto more portable and cheaper options. This adoption did not happen from one day to the next but occurred gradually with the more technophile oral historians leading the way.³⁵ The creation of sound archives also developed at different rates across the globe, with the US taking longer as there was a preference for destroying or taping over original recordings in favour of paper transcripts. This was less the case in the UK.³⁶ It was and still is a turbulent relationship. The Mini-Disc, for example, was initially met with 'euphoria' due its ability to record long interviews while also being very compact. However, this joy was swiftly followed by disappointment with both oral historians and sound archivists. Mini-Discs compressed files and these could only be accessed through proprietorial software. It quickly became obsolete. In general, oral historians were quicker to adopt new technologies, while sound archivists were sceptical about the 'long-term viability and archival reliability' of these new digital formats. In the end however, they had no other choice than to adapt as the digital oral history recordings kept being produced.³⁷

Once the recordings were archived another challenge arose - the issue of access and reuse. Frisch painted a rather bleak picture of oral history archives, writing, 'oral history libraries are closer than most archivists want to admit to that shoebox of unviewed home-video cassettes.' According to Frisch this was because, 'the content of these collections is rarely organized, much less indexed, in any depth, and the actual audio or video is generally not searchable or browsable in any useful way.'³⁸ Many other oral historians also framed the accessing and reusing oral histories along these lines, arguing the medium is what hinders the recordings' usability. Within these contexts the audio and video format is continuously compared to the more searchable and index friendly medium of text (analogue and digital). During the late

³⁵ Robert Perks, 'Messiah with the microphone? Oral historians, Technology, and Sound Archives,' in *The Oxford Handbook of Oral History*, ed. Donald Ritchie, (Oxford University Press, 2011), 316.

³⁶ Perks, 'Messiah with the microphone? Oral historians, technology, and sound archives,' 319.; See also Smith's explanation that archiving was driven by funding in Graham Smith, 'Oral History in Higher Education in Britain, c. 1969-2021: Historical Perspectives, Future Challenges and Opportunities,' *Oral History* 50, no. 1 (2022): 104–14.

³⁷ *Ibid.*, 324.

³⁸ Frisch, 'Three Dimensions and More: Oral History Beyond the Paradoxes of Method,' 223.

twentieth and early twenty-first centuries oral historians started to experiment with various new technologies, including digitising analogue recordings, in an effort to make the searching of audio and video easier, and allowing remote access via the internet. The resulting solutions generally came in two types of designs: the first were personalised curated collections of oral history recordings and the second were software to help navigate oral history recordings. The former includes such projects as Project Jukebox (ca. 1988),³⁹ VOAHA (2003),⁴⁰ and Civil Rights Movement in Kentucky Oral History Project Digital Media Database (1998)⁴¹ which were more comparable to well-curated digital exhibitions rather than archives.⁴² The latter included Interclipper (ca. 1998), software most prominently championed by Frisch,⁴³ and Stories Matter (ca. 2005) from Concordia University.⁴⁴

Most designs no longer exist or exist merely as shells of their original form. They failed for a variety of different reasons. In 2006 Doug Boyd left the Kentucky Historical Society and the original version of the Civil Rights Movement in Kentucky Oral History Project Digital Media Database was 'digitally abandoned' and thereafter hacked and dismantled. Later it was reassembled, but in Oral History and Digital Humanities Boyd explains how the database needed updating and was, at the time of writing, not compatible with certain browsers.⁴⁵ After the initial development of VOAHA it was plagued with all sorts of issues such as: a system crash in 2010, key team members retiring or passing away, and support for special projects being retracted. In the end VOAHA was absorbed into the university's main library system,

³⁹ 'About Us,' *Project Jukebox*, n.d., accessed Jan 13, 2025, <https://jukebox.uaf.edu/about-us>.

⁴⁰ Douglas A. Boyd, and Mary A. Larson, 'Introduction,' in *Oral History and Digital Humanities*, ed. Douglas A. Boyd and Mary A. Larson (Palgrave Macmillan, 2014), 7.

⁴¹ 'Civil Rights Movement in Kentucky Oral History Project,' Kentucky Historical Society, n.d., accessed Jan 13, 2025, <https://history.ky.gov/news/civil-rights-movement-in-kentucky-oral-history-project>.

⁴² Douglas A. Boyd, "'I Just Want to Click on It to Listen': Oral History Archives, Orality, and Usability," in *Oral History and Digital Humanities*, ed. Douglas A. Boyd and Mary A. Larson, (Palgrave Macmillan, 2014), 89.

⁴³ Douglas Lambert, and Michael Frisch, 'Digital Curation through Information Cartography: A Commentary on Oral History in the Digital Age from a Content Management Point of View,' *The Oral History Review* 40, no. 1 (2013): 137.

⁴⁴ Erin Jessee, Stacey Zembrzycki, and Steven High, 'Stories Matter: Conceptual challenges in the development of oral history database building software,' *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* 12, no. 1 (2011): 3.

⁴⁵ Boyd, "'I Just Want to Click on It to Listen': Oral History Archives, Orality, and Usability," 90.

losing its interactive elements.⁴⁶ The final blow to the original Stories Matter was the Adobe discontinuing Flash. However, new life was breathed into the software when Concordia invested 120 000 dollars in 2022.⁴⁷ Now, you can download the software from GitHub.⁴⁸

The wider adoption of these designs was also a recurring problem. This is unsurprising with the digital systems designed around a specific collection. The software, however, should have seen broader adoption, yet this was not the case. For example, Gluck did not use Interclipper in the development of VOAHA, opting instead to develop her own system because Interclipper failed to supply a digital file of the entire oral history recording alongside the clips, and its database was not compatible with the internet.⁴⁹ During the research period of Stories Matter students at Concordia University also tested Interclipper and found it frustrating to use, worried about information being lost, and thought it too expensive.⁵⁰

The interface designs of these systems also quickly became dated. High admits this was the case with Stories Matter, before the death of Adobe Flash.⁵¹ Similarly, Project Jukebox, having moved on from the CD days, still exists, but its interface is more akin to the aesthetics of Web 1.0. However, its landing page indicates there is an update project in the works.⁵²

Although the designs have different specific reasons for failing, I argue they have a common cause: during their development little to no attention was given to the

⁴⁶ Sherna Berger Gluck, 'Why do we call it oral history? Refocusing on orality/aurality in the digital age,' in *Oral History and Digital Humanities*, ed. Douglas A. Boyd and Mary A. Larson, (Palgrave Macmillan, 2014), 45.

⁴⁷ Mayra Coelho Jucá dos Santos, 'Sharing stories and the creative challenge of keeping them alive: interview with Steven High, founder of the Centre for Oral History and Digital Storytelling at Concordia University, in Montreal,' *História Oral* 25, no. 2 (2022): 248.

⁴⁸ Accessed Mar 5, 2025, <https://github.com/kamicode/stories-matter-releases>.

⁴⁹ Gluck, 'Why do we call it oral history? Refocusing on orality/aurality in the digital age,' 36.

⁵⁰ Jessee, Zembrzycki, and High, 'Stories Matter: Conceptual challenges in the development of oral history database building software,' 3.

⁵¹ dos Santos, 'Sharing stories and the creative challenge of keeping them alive: interview with Steven High, founder of the Centre for Oral History and Digital Storytelling at Concordia University, in Montreal,' 248.

⁵² 'We are updating our projects,' *Project Jukebox*, n.d., accessed Jan 13, 2025, <https://jukebox.uaf.edu/>.

maintenance of the technology or platform. When one creates something one also creates its decay, failures, and downfall.⁵³ If you fail to consider the maintenance required to halt this decay it is likely to disappear. Admittedly, these projects were started in the late nineties or early two-thousands before the prominence of YouTube, Soundcloud, and the rest of the internet content boom. At the time of their development people knew little about the maintenance required to sustain digital and internet-based systems. William Scheider, who worked on Project Jukebox, concluded years later they were working on an assumption that 'it [digital technology] would save us money and personnel in the long run.'⁵⁴ This assumption and then the subsequent failures of these designs perfectly summarises the limitations of technical fixes. The infatuation with new technology can lead to a failure of planning for the period 'after the revolution.' Technology does not replace human labour, it creates new forms of labour. And labour is essential to sustaining access to oral histories.

OHMS

The Oral History Meta-data Synchroniser or OHMS, a web-based software developed by Doug Boyd after his work on the Civil Rights Movement in Kentucky Oral History Project Digital Media Database,⁵⁵ is a successful example of technology being used to improve the reuse of oral history. It links up a transcript and keywords to a recording, allowing the user to navigate the recording by searching the text. OHMS does not attempt to replace all human labour and instead relies on the text and the keywords to be manually inputted - most often students.⁵⁶ And unlike the designs discussed above, OHMS has endured, successfully avoiding the mistakes of its predecessors.

OHMS' success can be attributed to a multitude of reasons. However, what is especially evident is Boyd's commitment to sustain OHMS. He learnt from his mistakes with the Civil Rights Movement in Kentucky Oral History Project Digital

⁵³ Paul Virilio, *The Original Accident*, (Polity, 2007), 10.

⁵⁴ William Scheider, 'Oral history in the age of digital possibilities,' in *Oral History and Digital Humanities*, ed. Douglas A. Boyd and Mary A. Larson, (Palgrave Macmillan, 2014), 19.

⁵⁵ Boyd, "'I Just Want to Click on It to Listen': Oral History Archives, Orality, and Usability," 91.

⁵⁶ *Ibid.*, 93.

Media Database, noting how grant funding allows for creation but not necessarily maintenance.⁵⁷ Since its initial creation in 2009 Boyd has continued to work on the maintainability of OHMS. In 2023 OHMS was added to the Aviary platform. This move made it easier for OHMS to be used outside of the US as Aviary's expertise can help make it compliant with General Data Protection Regulation (GDPR). Later in 2025 additional features will be rolled out to help it better integrate into the new era of AI.⁵⁸

Despite Boyd's extensive work on the maintainability of OHMS, he cannot guarantee sustained access to oral histories. OHMS is only one component of a broader system that enables access. Access to oral histories is only solidified if every element of this system is maintained. My project aimed to identify these individual components and explore how they are maintained.

At this point in time oral historians risk repeating the errors of the past. When the Oral History Association held a virtual symposium with the theme 'AI in OH' in July 2024,⁵⁹ the programme failed to address sustainability or maintenance, and only two of the ten sessions touched upon the ethics of AI with the rest focusing on AI's role in improving the access to oral history, echoing the claims made by those who championed digital technologies in the late 1990s and early 2000s, and their belief that technology would address existing access challenges.⁶⁰ My research offers a new perspective to this current conversation around the intersection of digital technology and oral history.

Design and Wicked Problems

Design is a nebulous concept, encompassing diverse forms, applications, and philosophies.⁶¹ This makes it a challenge to position this project within the field of

⁵⁷ Ibid., 91.

⁵⁸ Doug Boyd, 'OHMS: Transformational Transcript Changes Coming Soon,' YouTube video, 05:16, posted by "Doug Boyd," Nov 7, 2024, accessed Mar 5, 2025, <https://www.youtube.com/watch?v=rKlwlspBcFk>.

⁵⁹ 'AI in OH: How New and Evolving Technologies Will Impact the Profession,' Oral History Association, n.b., ca. 2024, accessed Mar 5, 2025, <https://oralhistory.org/ai/>.

⁶⁰ Sarah Milligan, and Steven Sielaff, *AI in OH Virtual Symposium*, (Oral History Association, 2024).

⁶¹ Lucy Kimbell, 'Rethinking design thinking: Part I,' *Design and Culture* 3, no. 3 (2011): 290.

design. The first issue arises when trying to find design literature that discusses maintenance. Maintenance, the capacity of repair, and general sustainability have been written about, however the majority, if not all, of this existing literature is based around product design or physical infrastructures.⁶² These texts are not directly applicable to my project as I am not designing a product for production. In fact, if we take the perspective Ukeles offers in her *Manifesto for Maintenance Art 1969!*, then maintenance and design seem to stand in opposition to one another.⁶³ Design, including those who do follow sustainable or eco-design, are focused on production and development. Nonetheless, I believe there are parts of design theory, specifically those oriented around Rittel and Webber's idea of wicked problems that can be applied in a manner to help designers consider maintenance even if the original text does not explicitly mention maintenance. In the following section I use certain design theories and methods to configure a form of design appropriate for this project, where I am aiming to develop a better understanding of maintaining access to oral histories.

Design does not have clear-cut origins. For many decades design existed across the arts and the sciences.⁶⁴ As Lucy Kimbell writes, the version of design born out of art schools is generally considered to be occupied by 'form' - following Christopher Alexander's idea that 'the ultimate object of design is form.'⁶⁵ Although even here there are discrepancies if one considers art movements such as Bauhaus where function informed form. The scientific orientation of design came from Herbert Simon, a political scientist, who wrote, *The Science of the Artificial* in 1969 and 'suggests that designers' work is abstract; their job is to create a desired state of affairs.'⁶⁶ My project fits within this latter orientation of design, however many designers, myself included, no longer follow the 'positivist and empiricist view of

⁶² William McDonough, and Michael Braungart, *Cradle to Cradle: Remaking the Way We Make Things*, (Vintage, 2009); Edwin Datschewski, *The Total Beauty of Sustainable Products*, (Rotovision, 2001); Dan M. Frangopol, Duygu Saydam, and Sunyong Kim, 'Maintenance, management, life-cycle design and performance of structures and infrastructures: A brief review,' *Structure and infrastructure engineering* 8, no. 1 (2012): 1-25; Laura Ackermann, 'Design for product care: Enhancing consumers' repair and maintenance activities,' *The Design Journal* 21, no. 4 (2018): 543-551.

⁶³ Danchev, and Ukeles, 'M81. Mierle Laderman Ukeles: Maintenance Art Manifesto,' 382.

⁶⁴ Nigel Cross, *Designerly Ways of Knowing*, (Birkhauser, 2007), v.

⁶⁵ Kimbell, 'Rethinking design thinking: Part I,' 290.

⁶⁶ Ibid.

design as a science' Simon writes of in his book.⁶⁷ Many theorists still acknowledge Simon's contribution to design theory, such as his proposition that design should work across fields in an interdisciplinary manner,⁶⁸ but they disagree with Simon's approach to problem solving which is based around 'well-formed problems already extracted from situations of practice.'⁶⁹ This understanding of problems ignores designs' ability to work with 'uncertainty, uniqueness, and conflict' with situations.⁷⁰ This rethinking of Simon's work is the product of a change in how designers and other professionals understood problems and problem solving as subjective rather than objective. This is in all likelihood the product of a wider transition from modernism to postmodernism around the mid-twentieth century, with postmodernism generally rejecting the idea of objective knowledge. Within the field of design, the idea of problems being subjective originated from Rittel and Webber's 1973 paper, 'Dilemmas in a General Theory of Planning.'

At the time of writing their paper, Rittel and Webber noted how professionals' abilities to solve societal problems were increasingly coming under scrutiny. Rittel and Webber define 'professionals' broadly, pointing at everyone from teachers to police to physicians.⁷¹ They themselves were colleagues at University of California, Berkeley; Rittel, a professor of the Science of Design, and Webber, a professor of City Planning. Again, reflecting how design's origins are spread across a range of fields. Rittel and Webber attribute the negativity surrounding professionals' actions at the time to a mismatch between society's problems and the professionals' approach to problem solving, and importantly, not their lack of knowledge.⁷² They theorised that the nineteenth century scientific and linear approach to problem solving, the one Simon prescribed to – define and then solve – was no longer suitable for handling the increasingly complex problems of the mid twentieth century.⁷³

⁶⁷ Richard Buchanan, 'Wicked Problems in Design Thinking,' *Design Issues* 8, no. 2, (1992): 9.

⁶⁸ Cross, *Designerly Ways of Knowing*, 99.

⁶⁹ Schön, *The Reflective Practitioner*, 47.

⁷⁰ Donald Schön, *Educating the Reflective Practitioner*, (Jossey-Bass, 1987), 41.

⁷¹ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 155.

⁷² *Ibid.*, 156.

⁷³ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 156; Buchanan, 'Wicked Problems in Design Thinking,' 15.

These complex problems were 'wicked problems' as opposed to 'tame problems'. Tame problems are easily defined and easily solved in a linear manner and formulated as objective and scientific, requiring only limited solutions, such as those found in mathematics or the game of chess.⁷⁴ Wicked problems were not 'ethically deplorable' as the term might suggest, but "“malignant” (in contrast to “benign”) or “vicious” (like a circle) or “tricky” (like a leprechaun) or "aggressive" (like a lion, in contrast to the docility of a lamb).'⁷⁵ Rittel and Webber list ten properties of wicked problems, which I broadly categorise as either stating that (a) finding a solution to a wicked problem is complicated or, (b) implementing a solution to a wicked problem generates irreversible consequences.

| Finding solutions is hard | Irreversible consequences |
|---|---|
| There is no definitive formulation of a wicked problem | Wicked problems have no stopping rule |
| Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan | Solutions to wicked problems are not true-or-false, but good-or-bad |
| Every wicked problem is essentially unique | There is no immediate and no ultimate test of a solution to a wicked problem |
| Every wicked problem can be considered to be a symptom of another problem | Every solution to a wicked problem is a 'one-shot operation'; because there is no opportunity to learn by trial-and-error, every attempt counts significantly |

⁷⁴ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 160.

⁷⁵ Ibid., 162.

| | |
|---|--------------------------------------|
| The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem's resolution | The planner has no right to be wrong |
|---|--------------------------------------|

I split these properties because over the decades since the seminal paper, two discussions have formed around these two categories. Category (a) – finding a solution is hard – led to a discussion surrounding the cognitive style of designers. While category (b) – irreversible consequences – created a debate around the ethics of design.

Nigel Cross, Donald Schön, and Kees Dorst all consider the particulars of how designers think. The cognitive style of designer's is also known as "design thinking." Their writing led to the idea of 'framing,' 'reflection-in-action,' and the idea that 'problems and solutions co-evolve.'⁷⁶ All three look at how designers continuously challenge assumptions and question the subjectivity of a problem's formulation.⁷⁷ Their writing generally follows category (a) a wicked problem's properties, specifically: 'The choice of explanation determines the nature of the problem's resolution.'⁷⁸

Category (b), the irreversible consequences of implementing a solution, is neatly summarised by Cameron Tonkinwise: 'the creative act of designing is inherently destructive.'⁷⁹ This echoes Rittel and Webber's fifth property of wicked problems: 'Every solution to a wicked problem is a "one-shot operation"; because there is no opportunity to learn by trial-and-error, every attempt counts significantly.'⁸⁰ Tonkinwise, also remixes Simon's interpretation of design that it is not 'the act of

⁷⁶ Kimbell, 'Rethinking design thinking: Part I,' 291.

⁷⁷ Kees Dorst, 'Frame creation and design in the expanded field,' *She Ji: The journal of design, economics, and innovation* 1, no. 1 (2015): 22-33; Cross, *Designerly Ways of Knowing*; Schön, *The Reflective Practitioner*; Kees Dorst, and Nigel Cross, 'Creativity in the design process: co-evolution of problem-solution,' *Design Studies* 22, no. 5 (2001).

⁷⁸ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 166.

⁷⁹ Cameron Tonkinwise, "'I prefer not to': Anti-progressive designing,' in *Undesign*, ed. Gretchen Coombs, Andrew McNamara, and Gavin Sade, (Routledge, 2018), 74.

⁸⁰ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 163.

creating preferred situations,' but an act which 'destroy[s] what currently exists by replacing it with a preferable one.'⁸¹ If this is combined with the last property of wicked problems – 'The planner has no right to be wrong' – we are confronted with a rather daunting picture of designing.

50 Years of Wicked Problems

The destructive nature of design has been witnessed and discussed by many since the publication of 'Dilemmas in a General Theory of Planning'. The preface to Victor Papanek's first edition of *Design for the Real World*, starts with 'there are professions more harmful than industrial design, but only a very few of them.'⁸² The book itself is full of examples of destructive, or 'pointless' design, with chapters titled 'Our kleenex culture: Obsolescence and Value' and 'Snake oil and thalidomide: Mass Leisure and Phony Fads.'⁸³ For a more contemporary version there is Mike Monteiro's, *Ruined by Design*, which focuses on the destructive nature of design coming from Silicon Valley.⁸⁴ The majority of the anger in these two books is directed at designers who place form over function, or do not consider problems as wicked problems. However, it is also the case that designers who do consider problems as wicked still neglect or are unable to accommodate the properties of category (b) - Irreversible consequences.

The lack of consideration for the properties of wicked problems that suggest irreversible consequences of solution implementation and even testing, is attributed by Julier and Kimbell to the prevailing neoliberal economic systems designers have to operate in. This economic system does not allow designers to directly address the causes of problems but instead alleviate the painful consequences.⁸⁵ Rittel and Webber recognised these constraints placed on designers - 'The planner terminates work on a wicked problem, not for reasons inherent in the "logic" of the problem. He stops for considerations that are external to the problem: he runs out of time, or

⁸¹ Tonkinwise, "I prefer not to": Anti-progressive designing,' 75.

⁸² Victor Papanek, *Design For The Real World: third edition*, (Thames & Hudson, 2020), ix.

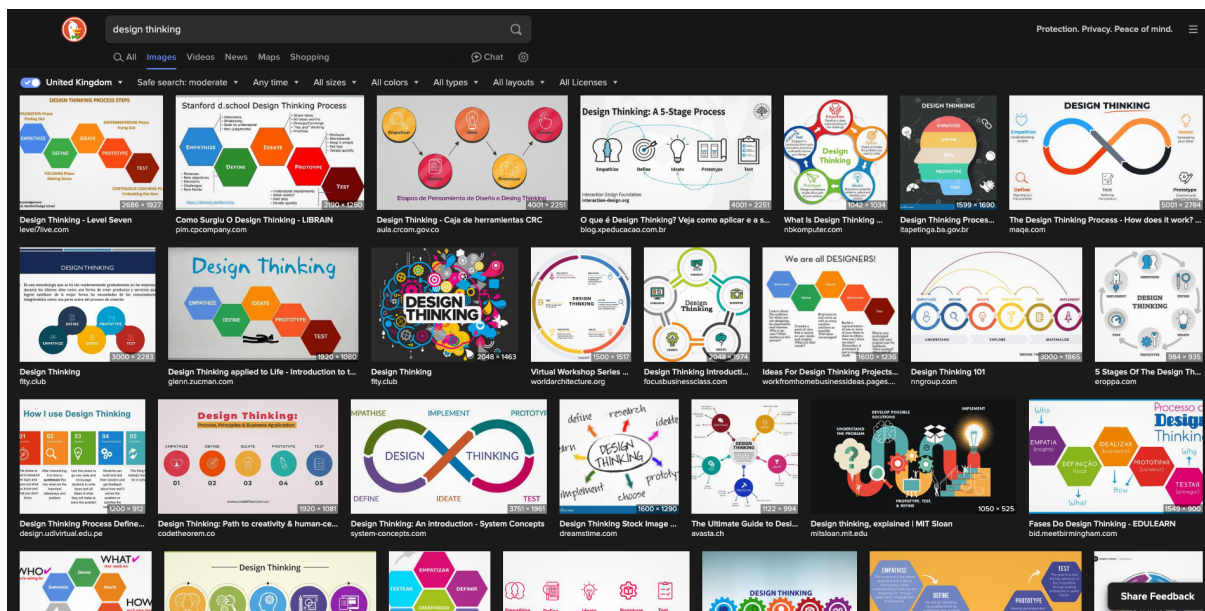
⁸³ Ibid., VII.

⁸⁴ Mike Monteiro, *Ruined by Design*, (Mule Design, 2019).

⁸⁵ Guy Julier, and Lucy Kimbell, 'Keeping the System Going,' *Design Issues* 35, no. 4 (MIT, Autumn 2019): 20.

money, or patience.⁸⁶ The ramification of these constraints leads to a performative form of design.⁸⁷

These design methods do not originate from the configuration of design Rowe, Cross, Schön, and Dorst write about. This sprung from a form of designing, which is seen as 'an organizational resource' for businesses.⁸⁸ This version of designing comes from such design institutions as IDEO where 'design thinking' is seen as having an important role in business strategy.⁸⁹ It is here where Kimbell notes a discrepancy between the theory and practice of this form of design thinking, because it emphasises a need to empathise with the end user and yet in practice there is rarely any room for the necessary thorough reflection.⁹⁰ This limited room for reflection is evident in how design as a process is commodified and squeezed into easy-to-digest flowcharts. This adoption of design thinking by business has somewhat flattened the ideas of Rittel and Webber's wicked problem and other design theorists who emphasise the messy and reflective nature of design.⁹¹



Screenshot of an image search of the term 'design thinking'

⁸⁶ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 162.

⁸⁷ Julier, and Kimbell, 'Keeping the System Going,' 18.

⁸⁸ Kimbell, 'Rethinking design thinking: Part I,' 297.

⁸⁹ Ibid., 293.

⁹⁰ Ibid., 295.

⁹¹ Schön, *The Reflective Practitioner*, 43.

"Solving" Wicked Problems

Rittel and Webber's wicked problem, inspiring as it is, does not seem solvable. Framed as a wicked problem, the maintenance of access to oral histories may never be solved. Indeed, perhaps it would be unethical to try as 'you may agree that it becomes morally objectionable for the planner to treat a wicked problem as though it were a tame one, or to tame a wicked problem prematurely, or to refuse to recognize the inherent wickedness of social problems.'⁹² Notably Rittel and Webber never offered a conclusive problem solving method of navigating the properties of wicked problems - 'we have neither a theory that can locate societal goodness, nor one that might dispel wickedness.'⁹³ And more than fifty years on we are still looking.

However, not all is lost, to combat this gloom Tonkinwise proposes 'Transitional Design' a form of 'multi-stage practice-oriented' design which is focused around creating transformation in a social and sustainable manner.'⁹⁴ This is an attempt to move away from a closed form of problem solving and fully embrace the wicked problem's 'no stopping rule.' Bailey et al., do something similar by opting to use the terms 'situation' and 'opportunity' instead of 'problem' and 'solution.'⁹⁵ The terms 'problem' and 'solution,' reflected in the business design flowcharts and even within the context of Rittel and Webber's work, suggest a closed configuration of the design project leaving little room for what happens 'after the revolution.' Removing the bookends of problem and solution recognises that when designing for wicked problems you must consider there is a time after the designer's work, which is what Tonkinwise is aiming for with *Transitional Design*.

Spencer and Bailey take this a step further in their paper, 'Design for Complex Situations,' where they offer up the idea that designing for Latour's conception of 'matters of concern' is not a 'problem-solving activity' but a form of 'research through design.' Here the aim is not to design a solution but to use design methods to

⁹² Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 161.

⁹³ Ibid., 169.

⁹⁴ Cameron Tonkinwise, 'Design for Transitions—from and to what?,' *Design Philosophy Papers* 13, no. 1 (2015): 85-92.

⁹⁵ Mark Bailey, et al., 'A design-led approach to transforming wicked problems into design situations and opportunities,' *Journal of Design, Business & Society* 5, no. 1 (2019): 121.

research and give insight to a particular situation.⁹⁶ Once the situation has been 'clarified and articulated' to a certain level of satisfaction, those who are operating within the subject of the research take this knowledge forward and create their own solutions. Bailey and Spencer recognise those within the design situation are more suited to implement solutions because they have situation-specific knowledge that a designer may lack as an outsider working under a time limit.⁹⁷

Research through design or RtD is one of the three intersections of research and design Frayling outlined in his paper, 'Research in Art and Design,' in 1993.⁹⁸ The main aim of research through design is to gain knowledge of a particular situation without creating a solution, contributing to a wider research area for others to explore and add to as they see fit. By not explicitly designing a solution the wicked problem is not 'tamed,' instead RtD creates a better understanding of the wicked problem.

This understanding is created through a process of simultaneously developing an idea of a situation and identifying possible opportunities. This is consistent with the simultaneous problem and solution development which has become key to contemporary design and design thinking. However, the big difference is that these opportunities might not be implemented but work as a form of stimulation and probes in conversations with those situated within the design subject. These conversations in turn produce more knowledge and research. I go on to explain this in further detail in the methodology section.

Maintenance is not pervasive in design. Similar to those who attempted to solve the oral history reuse problem through technology, the field of design generally does not consider that when something is created, so is its destruction.⁹⁹ Some, like Spencer and Bailey, and Tonkinwise, recognise a time after a design has been created – after the revolution – where maintenance should and will occur.¹⁰⁰ It is here where I think

⁹⁶ Nick Spencer, and Mark Bailey, 'Design for complex situations: Navigating "matters of concern",' *International Journal of Design* 14, no. 3 (2020): 71.

⁹⁷ Ibid.

⁹⁸ Frayling, 'Research in Art and Design,' 5.

⁹⁹ Virilio, *The Original Accident*, 10.

¹⁰⁰ Spencer, and Bailey, 'Design for complex situations: Navigating "matters of concern",' 71; Tonkinwise, 'Design for Transitions—from and to what?,' 85-92.

my work sits. Where my work can contribute to conversation on how design can manage and respond to wicked problems.

Part Two: Practice

The subject of my research through design – the maintenance of access to oral histories – required a particular methodology due to the nature of maintenance. Maintenance is often invisible. In the second part of my critical commentary, I will outline my methodology followed by an account of how this method unfolded in practice.

The Method

During my research period I spent many an afternoon as a volunteer guide in the basement room of Seaton Delaval Hall.¹⁰¹ I considered it a key part of my research method as it helped me to build up trust between me and the staff of the Hall. During all my placements at the Hall, Archives at NCBS, and the British Library I undertook a variety of odd jobs to familiarise myself with those working within the given design situation: the staff and volunteers. In Seaton Delaval Hall I set up an audio installation in the Tapestry Room,¹⁰² I designed an information poster for the archive exhibition day at NCBS,¹⁰³ and I helped lift and move a wide range of things from chocolate Easter eggs to freshly printed annual reports. On the surface these are activities of a good worker and decent person, but they were an important part of my research strategy. In the following I will explain this research strategy in detail and reveal why active involvement in the everyday tasks at the Hall was necessary for my study of the maintenance of access to oral history.

My research topic – the maintenance of access to oral histories – posed a particular challenge as maintenance is invisible to both those who operate within the system and those who are outside it. In the case of the outsiders, maintenance is invisible for two reasons. First, the “output” of maintenance work cannot be measured. As Stewart Brand suggests in, *How buildings learn: what happens after they're built*, ‘the measure of success in their [maintenance workers'] labors is that the result is invisible, unnoticed. Thanks to them, everything is the same as it ever was.’¹⁰⁴ This

¹⁰¹ James Louwerse, H., 2022, NT Volunteer memberships. OHD_Archive. [OHD SCP 0315](#).

¹⁰² James Louwerse, H., Aug 4, 2022, Possible options for MP3 players. OHD_Archive. [OHD RPT 0323](#).

¹⁰³ James Louwerse, H., Jan 21, 2023, Archives at NCBS poster. OHD_Archive. [OHD GRP 0314](#).

¹⁰⁴ Stewart Brand, *How buildings learn: what happens after they're built*. (Penguin, 1995), 130.

means maintenance only becomes visible when it is absent, when the lack of activity causes the system to jar.¹⁰⁵ Cleaning and general housework are obvious examples: if someone cleans a room every day, you will not notice the effect of their work until they stop. In addition, their work becomes invisible because the actions are often repetitive. As Star writes, the tasks which make up maintenance do not need to be 'reinvented each time or assembled for each task.' They are strangely passive activities which become transparent and 'naturalised' as part of a system and are simply taken for granted.¹⁰⁶ The second way in which maintenance is invisible is because it is generally hidden from view. People become invisible through either the location of their work or the time at which they work. For example, domestic workers stay in private homes and commercial cleaners mainly work outside opening or 'regular' working hours.¹⁰⁷

This invisible nature of maintenance had a clear impact on my choice of research strategy: I wanted to gain access to the invisible parts of maintenance. In order to map those tasks hidden from public view and to allow me to experience the maintenance tasks that have become naturalised to insiders, i.e. the staff and volunteers at Seaton Delaval Hall or Archives at NCBS, I opted for an involved research strategy: action research.

Action Research

AR has its roots in the social sciences but has become a well-established approach within research through design.¹⁰⁸ AR is a research strategy that merges research, action, and participation.¹⁰⁹ It was first described by Kurt Lewin in the mid-1940s when he formulated the founding principle of action research, namely that research

¹⁰⁵ Susan Leigh Star, 'The Ethnography of Infrastructure,' *American Behavioral Scientist* 43, no.3 (1999), 382; Stephen Graham, and Nigel Thrift, 'Out of order: Understanding repair and maintenance,' *Theory, Culture & Society* 24, no. 3 (2007): 8.

¹⁰⁶ Star, 'The Ethnography of Infrastructure,' 381.

¹⁰⁷ Susan Leigh Star, and Anselm Strauss, 'Layers of silence, arenas of voice: The ecology of visible and invisible work,' in *Computer supported cooperative work (CSCW)* 8, no. 1 (1999), 16.

¹⁰⁸ Frayling, 'Research in Art and Design,' 5.

¹⁰⁹ Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 2; Davydd Greenwood, and Morten Levin, *Introduction to Action Research: Social Research for Social Change*, (Sage Publications, 1998), 6.

needs to benefit society.¹¹⁰ This proposition repositioned the researcher from 'a distant observer' to someone directly involved in solving a particular 'real-life' issue.¹¹¹ Over the years AR has evolved to become more democratic by including participation from what Greenwood and Levin refer to as 'local people' or local stakeholders.¹¹² Today AR can be summarised as a process that seeks to be a democratic 'a situated process' where the 'local people' are not 'passive recipients (subjects) of the research process' but 'active participants' in the project.¹¹³

I created a *situated process* within each of the different organisations I undertook placements with: Seaton Delaval Hall, Archives at NCBS, and the British Library. My colleagues during these placements and my longer oral history project were the *local people* or *active participants* within the situated processes. They were 'insiders,' who possessed 'everyday knowledge' of the situation. This form of knowledge is 'embodied in people's actions, long histories in particular positions, and the way they reflect on them.'¹¹⁴ A significant portion of this knowledge takes the forms of maintenance labour that Star refers to as 'naturalised' or taken for granted.¹¹⁵ It was my ambition as the 'friendly outsider' to bring this invisible knowledge to light. I had to 'reflect back to the local group things about them, including criticism of their own perspectives or habits' through open discussion.¹¹⁶ These discussions required a diplomatic and sensitive approach, avoiding a 'negatively critical or domineering' position to build and maintain trust, hence the 'friendly' part of the role.¹¹⁷ In order to convince the staff that I was serious and committed, I volunteered at the Hall and carried out occasional odd jobs. I wanted to prove I was approachable and dedicated

¹¹⁰ Sommer, and Sommer, *A Practical Guide to Behavioral Research: Tools and Techniques*. 5th ed., 211.

¹¹¹ Greenwood, and Levin, *Introduction to Action Research: Social Research for Social Change*, 19.

¹¹² Cal Swann, 'Action Research and the Practice of Design,' *Design Issues* 18, no. 1 (2002): 50; Greenwood, and Levin, *Introduction to Action Research: Social Research for Social Change*, 6.

¹¹³ Sommer, and Sommer, *A Practical Guide to Behavioral Research: Tools and Techniques*. 5th ed., 212; Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 75.

¹¹⁴ Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 103.

¹¹⁵ Star, 'The Ethnography of Infrastructure,' 381.

¹¹⁶ Greenwood, and Levin, *Introduction to Action Research: Social Research for Social Change*, 104.

¹¹⁷ Greenwood, and Levin, *Introduction to Action Research: Social Research for Social Change*, 104; Sommer and Sommer, *A Practical Guide to Behavioral Research: Tools and Techniques*. 5th ed., 51.

to the community rather than being the designer who came to observe, design, and leave.¹¹⁸

The discussions I had during my research period formed the foundation of what Greenwood and Levin refer to as, 'dialectical knowledge generation.' This method of dialectic discussion aims for both parties to understand each other's perspectives and create an overall picture of the situation. The process kicks off with the designer proposing a thesis, which is then critiqued and questioned by local people, who might also propose a counter proposal, or vice versa.¹¹⁹ In the case of my research the proposed theses took the form of design artefacts.

Design Artefacts

A design artefact brings together the thoughts, feelings, and observations of the researcher and the participants together in one 'thing.'¹²⁰ Designers used artefacts or 'things' to navigate disciplinary differences and creative tensions present in the dialogues, and the exchanges of theses. A variety of parties are involved in these dialogues, each with their own agenda, jargon, and discipline related habits.¹²¹ The designer uses their skills as an interpreter to bring the different forms of knowledge together and to communicate across these "cultural" barriers.¹²² Within my work the artefacts came in two forms: explanatory and exploratory.

¹¹⁸ The 'friendly outsider' is not an alien concept to oral historians. For example, Wendy Rickard started recording oral histories of sex workers after briefly working as a maid for some friends who were sex workers. She was not a maid for long but continued to be very present in the sex worker community volunteering as 'a mobile support worker on different sex work outreach projects.' The trust that Rickard built up between herself and her oral history participants allowed her to gain exclusive access to an otherwise closed off industry. In addition it also gave her, as researcher, a feeling responsible for the consequences of her work - 'once we gained interviewees' trust, it was often extraordinarily strong; we were forced into a position of the textual guardian for their words.' See Wendy Rickard, 'Collaborating with sex workers in oral history,' *The Oral History Review* 30, no. 1 (2003): 47-59.

¹¹⁹ Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 102.

¹²⁰ William Gaver, 'What should we expect from research through design?,' *Proceedings of the SIGCHI conference on human factors in computing system*, (2012, May): 944; Ilpo Kalevi Koskinen, *Design Research through Practice: From the Lab, Field, and Showroom*, (Morgan Kaufmann, 2011), 125; Pelle Ehn, 'Participation in design things,' *Proceedings of Participatory Design Conference 2008*, (2008): 93.

¹²¹ Nathan Sterling, et al., 'From conflict to catalyst: using critical conflict as a creative device in design-led innovation practice,' In *21st DMI: Academic Design Management Conference*, London, UK, 1-2 August, 2018.

¹²² Papanek, *Design For The Real World: third edition*, 28.

Explanatory artefacts summarised observations of specific situations.¹²³ During my placements and my oral history project with Seaton Delaval Hall I produced several design artefacts in the form of spreadsheet, maps, and diagrams to explain and illustrate the situation I was working in. These artefacts helped stimulate the dialectical knowledge generation with my colleagues and encouraged them to reflect on their own environment and 'naturalised' parts of their surrounding structure and behaviour.

Exploratory artefacts were used to open 'the dialogue between the possible and the actual.'¹²⁴ They presented alternative futures or, to use Simon's phrase, 'a desired state of affairs.'¹²⁵ By using explorative design artefacts I could ask 'counterintuitive questions' to gain insights 'hidden from view by assumptions and other elements in cultural training and social systems.'¹²⁶ The probing of the participants with exploratory design artefacts encouraged them to question how this proposed future would function within the existing situation. They helped identify areas where change can happen, where there was more flexibility in the system.

These artefacts were often a product of 'reflection-in-action.' The origins of 'reflection-in-action' lie with Michael Polanyi's concept of 'tacit knowledge' or 'knowing-in-action' or 'common sense.' In other words, knowing something without knowing why you know it, such as recognising a face or using a particular tool.¹²⁷ Schön built on this idea by proposing 'reflection-in-action' as a divergent way of thinking when common sense falls short and our preconceived theories of a certain scenario fail to deliver and a new theory or framing of the problem is required. According to Schön, reflection on what we are doing occurs while we are doing it. He gives the example of jazz musicians, who make music according to the collective vibe created with the other musicians.¹²⁸ 'Reflection-in-action' is also why dialectal

¹²³ John Zeisel, *Inquiry by Design : Environment/Behavior/Neuroscience in Architecture, Interiors, Landscape, and Planning*, Rev. ed., (W.W. Norton & Company, 2006), 191.

¹²⁴ Greenwood, and Levin, *Introduction to Action Research: Social Research for Social Change*, 67.

¹²⁵ Kimbell, 'Rethinking design thinking: Part I,' 290.

¹²⁶ Greenwood, and Levin, *Introduction to Action Research: Social Research for Social Change*, 99.

¹²⁷ Schön, *The Reflective Practitioner*, 52.

¹²⁸ *Ibid.*, 55.

knowledge generation does not exclusively occur between the active participants and the designer, but also between the objects and overall subject.¹²⁹

Active participants are not always present in this conversation. Not all the artefacts were shared as part of the discussion between myself and my colleagues, because early versions were sometimes messy and personal artefacts, that could be misleading if read by anyone other than the creator.¹³⁰ So before the artefact was shared, it needed to be refined and tailored to the person or group it is being shown to. It might also be the case that the situation changes, such as legislation or even the environment, which requires additional reflection and thought. In the case of my research this included: a pandemic, the rapid development of Generative Artificial Intelligence, a cyber-attack on the British Library, and significant storm damage to local National Trust properties including Seaton Delaval Hall.

To emphasise again the dialectical knowledge generation encouraged by these design artefacts were within the unique individual settings of the organisations I worked in.¹³¹ This manner of working followed the principle that 'every wicked problem is essentially unique.'¹³² As Buchanan writes, 'design is fundamentally concerned with the particular.' However, he also notes how designers work on a general level by creating 'a working hypothesis about the nature of products or the nature of the humanmade in the world.'¹³³ My working hypothesis on how to maintain access to oral histories in a more general sense, was developed in the period

¹²⁹ Ibid., 76.

¹³⁰ Bryan Lawson, *How Designers Think : Demystifying the Design Process*, 4th ed (Architectural, 2004), 251.

¹³¹ AR's reliance on case studies has drawn much criticism to AR, with critics branding its outcomes as 'anecdotal, based on telling stories rather than on doing science.' This criticism is not uncommon in the social sciences and is similar to the criticism oral history received when the field was being established, because it relied on people's memory rather than objective and measurable historical truths. While the turn to memory deflected this criticism of oral history, in the case of AR, Greenwood and Levin countered the criticism by exploring the many ways scientific experimentation is situated within social constructs, and is 'a highly iterative and dynamic activity involving repeated action-reflection-action cycles' that are very similar to AR processes. See Sommer, and Sommer, *A Practical Guide to Behavioral Research: Tools and Techniques*. 5th ed., 215; Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 77 and 86; Alessandro Portelli, 'What makes oral history different,' in *The Oral History Reader*, ed. Robert Perks, Alistair Thomson, (Routledge, 2016), 33.

¹³² Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 164.

¹³³ Buchanan, 'Wicked Problems in Design Thinking,' 17

between my placements and my oral history project and took the form of a 'domain of design.'

Domain of Design

My *domain of design* takes the form of my portfolio of practice composed of significant design artefacts from my larger archive.¹³⁴ A domain of design is a collection of individual design artefacts, each of which encapsulates various thoughts and feelings, into an annotated portfolio which compares and contrasts the artefacts and puts them in relation to existing theories and ideas.¹³⁵ Similar to the outputs of action research, a 'domain of design' aims to inspire others with an interest in the issue – 'the artefact or situation sets the scene for meaning-making, but doesn't prescribe the result.'¹³⁶ The domain of design pushes the audience to interpret their own situation and invites them to engage with it in a deeper and more personal manner.¹³⁷ This idea is also seen in AR: 'we [action researchers] believe in trying to offer, as skilfully as possible, the space and tools for democratic social change, but we refuse to guide such change unilaterally from our position as action researchers.'¹³⁸

My integration into the community I was researching and designing for was essential and worth the voluntary shifts in Seaton Delaval Hall's basement. I built up a trust which allowed me to gain access to those parts of a maintenance system that would otherwise have remained hidden. My AR strategy encouraged me to nurture 'dialectical knowledge generation' between myself, my colleagues, and the wider subject of maintaining access to oral histories through the use of design artefacts and continuous reflection. Once I had completed my work with my various collaborative partners, my design artefacts and the ensuing dialogue continued to stimulate discussions within the organisations I worked with. In the following section I will look at how AR in practice contains certain obstacles that I had to navigate. It illustrates how the environment of the organisations I was working with influenced

¹³⁴ See [OHD Archive](#) or [the catalogue](#) for more artefacts.

¹³⁵ Gaver, 'What should we expect from research through design?', 945.

¹³⁶ William W. Gaver, Jacob Beaver, and Steve Benford, 'Ambiguity as a resource for design,' in *Proceedings of the SIGCHI conference on Human factors in computing systems*, (2003): 235.

¹³⁷ *Ibid.*, 233.

¹³⁸ Greenwood, and Levin, *Introduction to Action Research: Social Research for Social Change*, 11.

the outputs I created. Part three of this critical commentary will discuss how the creation and analysis of my portfolio or 'domain of design' developed a new way of framing and understanding, maintaining access to oral history and designing with a focus on maintenance.

In Practice

One of my National Trust supervisors suggested that if a National Trust member of staff replies to an email within two weeks, that should be considered fast. My experience of working with Trust staff members over a period of four years confirms this impression. Throughout my project with Seaton Delaval Hall and by extension the National Trust, and my placements at Archives at NCBS and the British Library, I saw how those within the design situation, my *active participants* in the research, had multiple demands on their time. Similarly, I, the researcher, also had other responsibilities, including, as I mentioned in the previous section, other odd jobs. This is why AR in theory is different from AR in practice. Or at least, AR is different in practice when the research environment is a fully operational public, busy day-to-day, organisation.

It is important to note that there is an existing body of literature on innovating and designing within heritage sites and other public services.¹³⁹ Case studies examining the challenges involved in their operations are available too.¹⁴⁰ However, there is far less knowledge on how the day-to-day operations of heritage sites and similar organisations influence design interventions. In the following section I will discuss how the realities of AR in practice within the context of my placement organisations affected my work and outputs. I have divided these outputs into two groups. The first are designs, systems, and documents which were created from scratch. The second

¹³⁹ Violeta Tsenova, et al., 'Un-authorised view: leveraging volunteer expertise in heritage,' in *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, (2020), 1-14; Violeta Tsenova, et al., 'Infrastructuring public history: when participation deals with the past,' in *Proceedings of the Participatory Design Conference 2024: Full Papers-Volume 1*, (2024), 145-158; Helena Alves, 'Co-creation and innovation in public services,' *The Service Industries Journal* 33, no. 7-8 (2013): 671-682.

¹⁴⁰ Nosipho Blacky, 'Organization Management Challenges of National Heritage Institutions in South Africa: A Case Study of the Robben Island Museum (RIM),' (masters dissertation, University of the Western Cape, 2012); Miljenka Perovic, 'Overcoming the Challenges of Building Heritage Projects: Improvements to Time, Scope and Cost Performance,' (PhD thesis, Queensland University of Technology, 2015).

are artefacts, maps, and reports that aimed to either adapt or add onto an existing system. Within each of these groups, the environment I was working in, and the people I was working with, altered and affected the outcome. This should be the case with AR, however the way they affected my work was not necessarily due to their enthusiastic engagement but rather the result of a lack thereof

From Scratch

There are three categories of designs and outputs that I developed from scratch, which I explore here. One is untested and eventually abandoned prototypes for products that would encourage visitor engagement with oral history. Another is outputs from work I completed during my placements, such as the takedown policy for Archives at NCBS and my audit of the National Trust's sound collection at the British Library. The remaining category is solely the Research Room for Seaton Delaval Hall, because it was a unique endeavour within my wider research project. These design artefacts and outputs have been grouped according to how they were influenced by my work environment and that of my colleagues.

| Category of output | Related design artefacts |
|----------------------|--|
| Abandoned Prototypes | Designs for archive both analogue and digital, OHD_DSN_0014 ; prototype for a sound box, OHD_PRT_0217 . |
| Work | NCBS Takedown and alterations policy, OHD_RPT_0249 ; NCBS sensitivity check doc, OHD_RPT_0250 ; C1168 uncatalogued items, OHD_WRT_0276 ; C1168 Audit 2023, OHD_COL_0262 ; NT BL Report, OHD_RPT_0274 ; NT property recommendations for PhD placement, OHD_RPT_0263 . |
| The Research Room | Research Room Donation Flowchart, OHD_DSN_0158 ; Research Room Acquisition Copyright form, OHD_FRM_0192 ; Research Room Acquisition Proposal, OHD_FRM_0193 ; Research Room Agreement, OHD_FRM_0194 ; Research Room Guide, OHD_RPT_0195 ; Research Room Information Sheet, OHD_WRT_0196 ; Research Room Index prototype, OHD_DSN_0197 . |

Abandoned Prototypes

At the time the 'ghost boxes' came to me one afternoon early in my PhD, I was still occupied by my original research question - how to encourage visitors of heritage sites to reuse oral histories. As I wrote in my report, 'No Man's Land' - 'The basic idea behind the books and boxes is that the user of the archive will take out a book or box and have access to notes and information left behind by previous visitors.'¹⁴¹ They were meant to be messy and playful, and allow a community to grow around the collection, which is sometimes difficult to achieve in an archive where you have to work in silence. The 'sound boxes' I created during my placement at Seaton Delaval Hall, worked on a similar principle, with inside the box a speaker and on top of the box a comment book for visitors to write their responses to the oral histories being played.

Neither the 'ghost boxes' nor the 'sound boxes' made it to testing, not only because they would have required the staff at the Hall to invest significant time and effort to organise and facilitate the testing process, but also due to concerns about overpromising to the volunteers and the dedicated Hall community. I also lacked the ethical clearance to use my oral histories to test the concepts. In fact obtaining the copyright clearance for these recordings took nearly three years to finalise!¹⁴² In the end, as the focus of my research shifted, I completely abandoned these designs.¹⁴³

Admittedly, this failure should not have come as a surprise as they were developed early on in the overall project, and I had not yet gained access to the wider structure these designs should operate in. As Tonkinwise wrote 'no product is an island. Every product exists within artificial ecosystems. [...] When a new product is designed, it must negotiate that ecosystem.'¹⁴⁴ These prototypes failed to do this to the extent they could not even be tested. Once I was granted access, after I started my

¹⁴¹ James Louwerse, H., Oct, 2021, No Man's Land. OHD_Archive. OHD_RPT_0134.

¹⁴² James Louwerse, H., Sep, 2022, Copyright and reuse forms. OHD_Archive. [OHD_FRM_0226](#); James Louwerse, H., Mar 6, 2024, Screenshot of email. OHD_Archive. [OHD_SSH_0294](#); James Louwerse, H., Nov 21, 2023, Final copyright form. OHD_Archive. [OHD_FRM_0290](#).

¹⁴³ ~~James Louwerse, H., Aug, 2022, prototype for a sound box. OHD_Archive. OHD_PRT_0217; James Louwerse, H., Sep, 2021, Designs for archive both analogue and digital. OHD_Archive. OHD_DSN_0014.~~

¹⁴⁴ Cameron Tonkinwise, 'Design Away: Unmaking Things,' in *Design as Future-Making*, ed. Barbara Adams and Susan Yelavich. (Bloomsbury Academic, 2014), 202.

placement at the Hall, I realised exactly how flawed these designs were and how unlikely they were to have ever worked at the Hall.

Work

Overall, my work during my placement at Archives at NCBS and the British Library was more targeted than my work with the Hall and the Trust. These placements were more akin to internships: I was given a task and then I would complete the task.

The outputs of my work had several iterations. At Archives at NCBS there were three iterations of the takedown policy, and two of the sensitivity check.¹⁴⁵ With every new iteration I would receive feedback from my line manager, and due to the sociable nature of the work environment at the Archives I would also regularly discuss my work with my colleagues.¹⁴⁶ The audits of the Trust's sound collection did not have distinct iterations, but as with the takedown policy and the sensitivity check, I had regular contact with my line manager to check whether I was on the right track.

When undertaking these tasks I felt more like a worker than a researcher. I was given a task, and I would finish the task. I felt like an insider because, unlike my abandoned prototypes, the outputs from these tasks were easily integrated into the existing systems and workflows. The takedown policy was added to the Archives' website,¹⁴⁷ and the oral history team at the British Library created a PhD internship for someone to develop a workflow with National Trust staff to help them obtain the missing copyright.¹⁴⁸

The question now is whether this was AR or simply work. In isolation, this work could probably not be considered AR. However, when alongside my other design artefacts

¹⁴⁵ James Louwerse, H., Jan 12, 2023, NCBS Takedown and alterations policy. OHD_Archive. [OHD_RPT_0249](#); James Louwerse, H., Feb 13, 2023, NCBS sensitivity check doc. OHD_Archive. [OHD_RPT_0250](#).

¹⁴⁶ James Louwerse, H., Feb 3, 2023, Blog post on the first month at NCBS. OHD_Archive. [OHD_BLG_0254](#).

¹⁴⁷ 'Archives at NCBS: Digital Material Take Down Policy,' *Archives at NCBS*, Feb 15, 2024, accessed Mar 3, 2025, <https://archives.ncbs.res.in/takedown>.

¹⁴⁸ James Louwerse, H., Jun 21, 2023, NT property recommendations for PhD placement. OHD_Archive. [OHD_RPT_0263](#). At the time of writing this internship has been on hold due to the cyber-attack on the British Library in October 2023.

the fact that they were easily adopted reveals that improving access to oral histories and archival materials may simply be a matter of more man-power.

The Research Room at Seaton Delaval Hall

My placement at Seaton Delaval took place over three months in the summer and autumn of 2022. During this time, I was, among other things, tasked with designing the Hall's Research Room. The Research room is meant to be:

*a place for the research community of Seaton Delaval Hall to come and exchange their knowledge. It is a library / archive / study room, which grants the public access to all past, present and future research. It is a space for staff, volunteers, visitors, students, and anyone else curious about the hall's fantastic and complicated history.*¹⁴⁹

Designing the Research Room at Seaton Delaval Hall was an ambitious project. The staff at the Hall wanted a location to hold material that could not enter the collection, due to the Trust's restrictive collection policy,¹⁵⁰ but was useful to the Hall's large research community. Prior to my placement there was no existing structure at the Hall for the Research Room, so I started from scratch.

The first iteration of the Research Room considered the space in a practical manner: including questions of where stuff was going to go, and how it should be indexed.¹⁵¹ I started the second iteration with a design fiction to help create a more holistic idea of the processes of the Research Room.¹⁵² 'Design fiction,' a term coined by the science fiction writer Bruce Sterling,¹⁵³ is used 'predominantly as an object for interrogation, from which other iterations may follow, that in the end inform a design brief.'¹⁵⁴ Since it is a tool for understanding a situation without direct interference, it

¹⁴⁹ James Louwerse, H., Oct 31, 2022, Research Room Guide. OHD_Archive. [OHD_RPT_0195](#).

¹⁵⁰ National Trust, *National Collections Development Policy 2019-2024*, 2019, 3.

¹⁵¹ James Louwerse, H., Aug 31, 2022, Round 1 - Research Room Design. OHD_Archive. [OHD_RPT_0198](#).

¹⁵² James Louwerse, H., Aug 20, 2022, Design Fiction Research Room. OHD_Archive. [OHD_DSF_0182](#).

¹⁵³ Bruce Sterling, *Shaping Things*, (The MIT Press, 2005).

¹⁵⁴ Tony Fry, *Writing design fiction: Relocating a city in crisis*, (Bloomsbury Visual Arts, 2022), 2.

proved to be a suitable design method for my particular situation because, as discussed before, testing was to be avoided.

After making the design fiction I created a series of flowcharts to understand how the materials that would populate the Research Room should be classified. These flowcharts posed questions and the answers would determine how the material needed to be handled.¹⁵⁵ From these flowcharts I developed various permission forms.¹⁵⁶ The forms also had a number of iterations, as I had to revise them to mimic the Trust's existing acquisition forms, which I only gained access to after I shared the first versions with my Trust supervisor.¹⁵⁷

The Research Room is an example of trying to design something that is needed and desired by 'local people,' but not being fully realised due to there not being enough time or the resources. This lack of time and resources applies to both my colleagues (the active participants) and myself, because I could also only dedicate three months of my time to this endeavour due to my funding body's restrictions on placements. This is why there were gaps in the final Research Room guide because I lacked the information to fill them myself.¹⁵⁸ In the gaps I left as much information and advice as I could, but made sure to emphasise more work had to be done.

What I learned from designing from scratch within these types of organisations is that designing takes a long time because the active participants in the AR process have other responsibilities. However, mimicking existing structures and utilising the recipient's familiarity with certain aesthetics makes integration and adoption easier.

¹⁵⁵ James Louwerse, H., Sep 8, 2022, Research Room Donation Flowchart. OHD_Archive. [OHD_DSN_0158](#).

¹⁵⁶ James Louwerse, H., Sep 16, 2022, Donation Form and examples. OHD_Archive. [OHD_FRM_0189](#); James Louwerse, H., Oct 3, 2021, Archive Donation Acceptance Form. OHD_Archive. [OHD_FRM_0190](#); James Louwerse, H., Sep 29, 2022, Research Room Donation Acceptance Form. OHD_Archive. [OHD_FRM_0191](#).

¹⁵⁷ James Louwerse, H., Oct 31, 2022, Research Room Acquisition Copyright form. OHD_Archive. [OHD_FRM_0192](#); James Louwerse, H., Oct 25, 2022, Research Room Acquisition Proposal. OHD_Archive. [OHD_FRM_0193](#); James Louwerse, H., Nov 1, 2022, Research Room Agreement. OHD_Archive. [OHD_FRM_0194](#).

¹⁵⁸ James Louwerse, H., Oct 31, 2022, Research Room Guide. OHD_Archive. [OHD_RPT_0195](#).

Adapting Systems

Throughout my research project I worked with three systems: the work culture at Archives at NCBS; the collection process at Seaton Delaval Hall; and the National Trust's general system for managing oral history. The British Library, although it is a system on its own, I included in the latter due to the Library holding the Trust's sound material. These systems all vary radically in size and culture, and I had different amounts of contact time with each, which is evident in the final outputs.

| Output | Related design artefacts |
|--|--|
| What is Archives at NCBS? | Miro board of the NCBS away day, OHD_WHB_0247 ; What is Archives at NCBS?, OHD_GRP_0261 . |
| Seaton Delaval Hall's Oral History Pilot Project | SDH oral history strategy, OHD_RPT_0296 ; SDH OH questionnaire, OHD_FRM_0303 ; Copyright and reuse forms, OHD_FRM_0226 ; Listening session audios, OHD_AUD_0295 ; Feedback from listening session, OHD_PST_0289 ; Receipt of deposit, OHD_RCP_0293 ; Collection of preinterview stuff, OHD_COL_0291 ; Hard drive, SDH_PP; Final copyright form, OHD_FRM_0290 ; Screenshot of email, OHD_SSH_0294 . |
| Oral History at The National Trust: Report and Guide | The Trust: stories of a nation, OHD_WRT_0273 ; Oral history at the National Trust Poster, OHD_GRP_0260 ; NT OH report, OHD_RPT_0298 ; NT OH guide, OHD_DSN_0299 ; JAN CRIT PLAN ETC, OHD_COL_0279 ; NT OH workshop audio, OHD_AUD_0308 . |

What is Archives at NCBS?

In addition to developing their takedown policy and sensitivity check I also volunteered to facilitate the Archives at NCBS staff away-day, as I was interested in researching the work culture of the Archives as part of my investigation into the maintenance of access to oral histories. During the away-day the staff partook in three activities: two were based around the aims and objectives of the Archives and one was a Stop/Start/Continue activity in relation to the Archives work

environment.¹⁵⁹ Stop/Start/Continue is a feedback activity where everyone writes down one thing they would like to stop doing, start doing, and continue doing within the workplace, and these are then shared and discussed with the group. By the end of this activity the group agreed on some actionable points. Some of which, for example the weekly updates from each staff member in the weekly meeting, were implemented the following week.

This away-day and my two months working at the Archives led me to create an infographic entitled - 'What is Archives at NCBS?'¹⁶⁰ The graphic explores how there are two sides to the Archives and what can be done to manage these two different identities. This concept resonated with my colleagues according to the questionnaire I sent out to get feedback on the infographic.¹⁶¹ However, articulating the situation cannot be equated to full implementation. It was ultimately up to the discretion of the staff at Archives at NCBS whether they adopted my suggestions.

Seaton Delaval Hall's Oral History Pilot Project

Alongside my placements I also carried out an oral history project at Seaton Delaval Hall. Unlike the previous examples, this oral history project was not restricted to a tight time limit. Over a nearly three-year period I recorded twelve oral histories of people with varying connections to the Hall.¹⁶² Each recording was transcribed or summarised and eventually was archived at Northumberland Archives.

¹⁶³

The most notable part of the oral history process was the long time it took to gain the copyright clearance for my recorded oral histories. This started with me not knowing where the recordings were to be archived, because of the agreement the National Trust has with the British Library. Eventually I received permission to archive them locally instead of at the Library, which in hindsight was fortunate given the cyber-attack in October 2023. However, this meant I had to develop a copyright form

¹⁵⁹ James Louwerse, H., Feb 8, 2023, Miro board of the NCBS away day. OHD_Archive. [OHD_WHB_0247](#).

¹⁶⁰ James Louwerse, H., Mar 20, 2023, What is Archives at NCBS?. OHD_Archive. [OHD_GRP_0261](#).

¹⁶¹ James Louwerse, H., Mar, 2023, Feedback for the document "What is Archives at NCBS?". OHD_Archive. [OHD_FRM_0325](#).

¹⁶² James Louwerse, H., Aug 7, 2024, Listening session audios. OHD_Archive. [OHD_AUD_0295](#).

¹⁶³ James Louwerse, H., Oct 28, 2024, Receipt of deposit. OHD_Archive. [OHD_RCP_0293](#).

specifically for this project, because the National Trust wanted to own the copyright to the recordings and Northumberland Archives also wanted to be able use the material in their exhibitions. The final form was an amalgamation of the copyright forms used by Newcastle University, Northumberland Archives, and the National Trust.¹⁶⁴ The form was swiftly approved by Northumberland Archives, but my Trust supervisor wanted it to also be approved by the copyright staff at the Trust, so she sent them an email. Eventually they replied saying this was not their jurisdiction, because their focus is on managing the copyright the Trust already owns rather than obtaining new copyright. In the end with permission from my Trust supervisor I used the form as it was.

However, obtaining the copyright and getting people to sign the form was another issue for several reasons. Some people had changed their contact details or had not been volunteering at the Hall in the immediate period, or were simply forgetful. Luckily with the invaluable help from the Hall's staff all the forms were signed before the day of the listening session.¹⁶⁵

The advantage of the oral history project lasting as long as it did was that by the end the staff at the Hall were familiar with how an oral history is recorded and then prepared for archiving, making the development of the Hall's oral history strategy significantly easier.¹⁶⁶ By the time the final workshop I ran to develop this strategy finished, the staff felt they could easily integrate oral history into the Hall's existing collection processes and include it in their exhibitions, despite the obstacle of the Trust IT systems.¹⁶⁷

Oral History at the National Trust

On the Trust-wide side of my work, I held a three hour workshop where I presented my findings to Trust staff and volunteers from all over the country.¹⁶⁸ Additionally, I

¹⁶⁴ James Louwerse, H., Sep, 2022, Copyright and reuse forms. OHD_Archive. [OHD_FRM_0226](#).

¹⁶⁵ James Louwerse, H., Mar 6, 2024, Screenshot of email. OHD_Archive. [OHD_SSH_0294](#).

¹⁶⁶ James Louwerse, H., Jul 1, 2024, SDH OH workshop. OHD_Archive. [OHD_WKS_0297](#); James Louwerse, H., Aug 5, 2024, SDH oral history strategy. OHD_Archive. [OHD_RPT_0296](#).

¹⁶⁷ James Louwerse, H., Jul 1, 2024, SDH OH questionnaire. OHD_Archive. [OHD_FRM_0303](#).

¹⁶⁸ James Louwerse, H., Sep, 2023, JAN CRIT PLAN ETC. OHD_Archive. [OHD_COL_0279](#); James Louwerse, H., Jan 31, 2024, NT OH workshop audio. OHD_Archive. [OHD_AUD_0308](#).

wrote a report on the status of oral history at the Trust and created an updated version of the Trust's oral history guide.¹⁶⁹ My intention with the workshop, report, and guide was primarily to draw attention to the matter of oral history at the Trust, with the hope that along the way some of my knowledge might be helpful to a Trust member of staff or a volunteer who wishes to use oral history (or finds some cassette tapes in a cupboard somewhere).

A system is not changed overnight nor in a three-month placement, and perhaps not even over a three-year period. The impact the majority of my outputs had likely extends no further than conversations, however this is not uncommon for AR projects as, 'a central tenet of AR in general is the conversion of people who would be research subjects in conventional research into coresearchers.'¹⁷⁰ The outputs I created turned my colleagues into co-researchers who can continue to explore the wicked problem of maintaining access to oral histories within their unique situation after I finished my placements.

Swimming through Treacle

One of my final research presentations was titled, 'Swimming through Treacle.'¹⁷¹ The title came from one of my National Trust supervisors, who said getting anything done in the Trust is comparable to "swimming through treacle." In some cases, it was like swimming through treacle, and it was frustrating. However, I do not believe it weakened my AR, but made it evolve. This is again not unknown in the field of AR as Greenwood and Levin note how the project might start off in a more 'conventional manner' but moves into 'more experimental and risky forms of participation.'¹⁷² This is reflected in my outputs as the abandoned prototypes made near the beginning of my research period are more akin to the form of design adopted in business strategy,¹⁷³ and the final outputs for the Hall and the wider Trust are far more open and nebulous.

¹⁶⁹ James Louwerse, H., Aug 16, 2024, NT OH report. OHD_Archive. [OHD_RPT_0298](#); James Louwerse, H., Aug 16, 2024, NT OH guide. OHD_Archive. [OHD_DSN_0299](#).

¹⁷⁰ Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 215.

¹⁷¹ James Louwerse, H., Mar 4, 2024, Swimming through Treacle. OHD_Archive. [OHD_PRS_0301](#).

¹⁷² Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 214.

¹⁷³ See Kimbell, 'Rethinking design thinking: Part I,' 293.

This section contained examples of a designer's work with the particular. In next and the last part of my critical commentary I reflect on my domain of design. My domain of design, which takes the shape of a portfolio of practice, presents my contribution to knowledge on a general level. It displays my 'working hypothesis' on how we maintain access to oral histories.¹⁷⁴

¹⁷⁴ Buchanan, 'Wicked Problems in Design Thinking,' 17.

Part Three: Reflection

In producing this portfolio, I brought together all of my research, design artefacts, notes, and miscellaneous items. It was a reflective and illuminating process.

Themes, ideas, and concepts started to emerge when I grouped the individual materials together. This final section lays out my interpretation of this collective body of work. The first half looks closely at how my portfolio and research offers a particular understanding of oral history access and reuse, which has been missing from the mainstream oral history conversation. The second half looks at what my findings contribute to the discussion in the field of design around finding solutions or opportunities within wicked problems. Specifically, it unpacks how maintenance can navigate the properties of wicked problems, and how it is the task of the designer to create spaces for this to take place.

Maintaining Access

In the public domain maintenance is often stereotyped as an activity involving hardhats and screwdrivers. Specialist literature reveals a more nuanced picture covering the maintenance of buildings and physical infrastructures¹⁷⁵ as well as digital systems and domestic labour thus adding computer code and floor mops to the picture.¹⁷⁶ In spite of a broader scope, however, maintenance is often approached in a narrow way: it is either regarded as a technical issue – often inviting dense specialist language – or it focuses on social issues, in particular on inequalities faced by female and/or immigrant domestic workers and home makers. Similarly, the writing that discusses the maintenance of archives or heritage sites in particular focuses on either the technical aspect of archival maintenance,¹⁷⁷ or the

¹⁷⁵ Jérôme Denis, and David Pontille, 'Maintenance work and the performativity of urban inscriptions: The case of Paris subway signs,' *Environment and Planning D: Society and Space* 32, no. 3 (2014): 404-416; Ignaz Strebel, 'The living building: Towards a geography of maintenance work,' *Social & Cultural Geography* 12, no. 03 (2011): 243-262; Brand, *How buildings learn: what happens after they're built*.

¹⁷⁶ Swanson, 'The Dimensions of Maintenance,' 492-497; Eileen Boris, *Making the Woman Worker: Precarious Labour and the Fight for Global Standards, 1919- 2019*, (Oxford University Press, 2019); Pierrette Hondagneu-Sotelo, 'It's Not What You Know . . .,' in *Doméstica: Immigrant Workers Cleaning and Caring in the Shadows of Affluence*, 2nd ed., (University of California Press, 2007), 63–91.

¹⁷⁷ Robert Perks, 'Messiah with the microphone? Oral historians, technology, and sound archives,' in *The Oxford Handbook of Oral History*, ed. Donald Ritchie, (Oxford University Press, 2011), 316-328; Andrew Prescott, 'Community archives and the health of the internet,' in *Communities, Archives and New Collaborative Practices*, ed. Simon Popple, Andrew Prescott, and Daniel H. Mutibwa, (Policy Press, 2020), 251-268.

lack of socio-economic status of archivists as maintainers.¹⁷⁸ In general these two framings of maintenance are rarely discussed together, however through my practice, especially my placements at Seaton Delaval Hall, Archives at NCBS, and The British Library, I witnessed how, when these two frames are combined, something more complex, more wicked, and more thought-provoking emerges.

When I sought a clear and effective way to articulate my research findings, the fragmented understanding of maintenance and the general wicked problem I was addressing, posed a significant challenge. Like a wicked problem, I initially saw no clear starting point. However, once I began curating my portfolio, a central theme emerged: many of the jobs I undertook and the artefacts I created revolved around providing and maintaining access. My design for the Research Room at Seaton Delaval Hall is the foundation of a system which will grant access to the Hall's community research.¹⁷⁹ The takedown policy at Archives at NCBS established a pathway for the public to question online access to archival material, ensuring that the archive continuously adheres to legal and ethical guidelines.¹⁸⁰ My copyright audit for The British Library of the National Trust's sound collection became a starting point for obtaining copyright, which would allow the material to be made publicly accessible.¹⁸¹ I realised the best method to articulate my findings was to identify the subject of maintenance and then work backwards, unpacking its various dimensions: the type of maintenance required, the tasks involved, and the potential obstacles that might hinder the process. The *subject* of the maintenance will determine the *form* of the maintenance.

For example, the physical material of roads is maintained by fixing potholes. This is a visual and tangible form of maintenance many are familiar with. Maintaining the aim of a road is more complex since this transcends the hardware and moves into the

¹⁷⁸ Jessica M Lapp, "'Handmaidens of history': Speculating on the feminization of archival work," in *Archives in a Changing Climate-Part I & Part II*, (Springer, 2022), 7-26; Paul Griffin, 'Making usable pasts: Collaboration, labour and activism in the archive,' *Area 50*, no. 4 (2018): 501-508.

¹⁷⁹ James Louwerse, H., Oct 31, 2022, Research Room Guide. OHD_Archive. [OHD_RPT_0195](#).

¹⁸⁰ James Louwerse, H., Jan 12, 2023, NCBS Takedown and alterations policy. OHD_Archive. [OHD_RPT_0249](#).

¹⁸¹ James Louwerse, H., Jun 22, 2023, C1168 Audit 2023. OHD_Archive. [OHD_COL_0262](#); James Louwerse, H., Jun 21, 2023, NT property recommendations for PhD placement. OHD_Archive. [OHD_RPT_0263](#).

domain of purpose. For instance, the aim of a road to facilitate traffic streams might no longer be fulfilled when there is an increase in vehicles due to a newly built theme park.¹⁸² An external change has led to a demand on the structure beyond its means. The structure needs to be altered in order to, once again, fulfil its original purpose of providing good traffic flow. This is what software engineers refer to as adaptive maintenance. A type of maintenance which alters and updates a structure to better fit the changes in the environment.¹⁸³ This is where maintenance becomes a wicked problem, because, as the ninth property of wicked problems states, 'the choice of explanation determines the nature of the problem's resolution.'¹⁸⁴ For example, a good standard of traffic flow could be maintained by expanding the roads, or increasing bus routes accompanied by a campaign to encourage the use of public transport. The choice between these two options is not as simple and linear as filling in a pothole, there are more factors at play, including access to resources, funding, and public attitudes. This is what makes the subject of adaptive maintenance a wicked problem.

In the context of my project, adaptive maintenance is necessary because the environment surrounding archives and other forms of oral history repositories has changed. In the last few decades, the digital revolution has significantly altered people's expectation of access, specifically in relation to speed and security. The systems and processes of organisations which hold oral histories need to be adapted to conform to these new expectations. However, the experience I gained through my placement and the rest of my practice revealed this is easier said than solved. In what follows, I will examine how the digital revolution has reshaped public expectations of access, creating a need for adaptive maintenance in oral history archives and similar organisations. I will then explore the obstacles that hinder the successful implementation of this maintenance, as observed in my practice.

¹⁸² The strain on the road could be for a more abstract reason. For example, studies showed that in the wake of the 9/11 attack more people opted to travel by car instead of by plane increasing the number of cars on the road and therefore also increasing the number of car accidents. See Bruce Bower, "9/11's Fatal Road Toll: Terror attacks presaged rise in U.S. car deaths," *Science News*, Jan 14, 2004, accessed Feb 25, 2025, <https://www.sciencenews.org/article/911s-fatal-road-toll-terror-attacks-presaged-rise-us-car-deaths>.

¹⁸³ Swanson, 'The Dimensions of Maintenance,' 494.

¹⁸⁴ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 166.

Adaptive Maintenance in Oral History

Storage and retrieval systems are in a constant flux. I am using storage and retrieval system to indicate any space, analogue or digital, which holds material or data that can be accessed. This covers servers and archives, but also smart phones and photo albums. These relatively new digital storage and retrieval systems, consisting of servers, internet cables, wi-fi transmitters, and computers, have radically changed public expectation of access. The public have come to expect, if not demand, access to material at a speed that the traditional archive made up of shelves, a catalogue, and a bricks-and-mortar building cannot deliver. To keep up with this expectation many archives have digitised their collections as well as their systems.¹⁸⁵

Beyond the expectation of fast access, there are additional demands, such as the changing aesthetics and user-friendliness of web interfaces, which in some cases pose a challenge for archives.¹⁸⁶ However, an even more pressing expectation is ensuring safety. The digitisation of many aspects of today's life has led to a change in social attitudes towards access and online protection. The need for change is frequently triggered by a scandal or incident which highlights the risks and cost of this new form of access. For example, Edward Snowden leaking information on NSA surveillance in 2013 increased people's awareness of government surveillance.¹⁸⁷ The Cambridge Analytica and Facebook scandal in March 2018 made people aware of undisclosed data mining from social media sites.¹⁸⁸ A response to this growing awareness is the European Union's General Data Protection although Regulation (GDPR) which came into effect two months after the Cambridge Analytica reveal (these two events are not directly connected). GDPR regulation inspired countries beyond the EU to follow suit and implement similar legislation.¹⁸⁹ It is the GDPR law

¹⁸⁵ Perks, 'Messiah with the microphone? Oral historians, technology, and sound archives,' 316.

¹⁸⁶ James Louwerse, H., Mar 16, 2022, Archive system interfaces. OHD_Archive. OHD_SSH_0170; James Louwerse, H., Jun 2, 2023, Photo of BL catalogue interface. OHD_Archive. [OHD_PHO_0302](#).

¹⁸⁷ Glenn Greenwald, Ewen MacAskill, and Laura Poitras, 'Edward Snowden: the whistleblower behind the NSA surveillance revelations,' *Guardian*, Jun 11, 2013, accessed Feb 6, 2025, <https://www.theguardian.com/world/2013/jun/09/edward-snowden-nsa-whistleblower-surveillance>.

¹⁸⁸ Nicholas Confessore, 'Cambridge Analytica and Facebook: The Scandal and the Fallout So Far,' *New York Times*, Apr 4, 2018, accessed Feb 6, 2025, <https://www.nytimes.com/2018/04/04/us/politics/cambridge-analytica-scandal-fallout.html>.

¹⁸⁹ This is often referred to as the 'Brussels effect.'

that I looked at specifically when developing the takedown policy for Archives at NCBS.¹⁹⁰

In addition to an increase in data protection laws, the rise of the internet also resulted in alterations to copyright law. I saw this most starkly in my audit of the National Trust's sound collection at the British Library. The history of oral history and copyright is complicated, firstly because accumulated traditional copyright law is already complex and secondly because new digital formats and new media destabilised known categories. Elaborate discussion was needed before a consensus around how to categorise oral history in relation to copyright was reached. I conducted research into the National Trust's sound collection focusing on copyright law and I concluded in my placement report:

*All recordings, which were recorded before 1995 do not come with any copyright or consent forms (except for one in 1986). Between 1987 and 1992 reuse forms were occasionally used, however these do not explicitly contain the word 'copyright'. Also, during the late 1980s and throughout the 1990s there are copyright forms for the interviewers only, not for the interviewees. This is likely due to the misunderstanding of copyright law, namely that whoever presses the record button holds the recording's copyright. However within oral history, all speakers on the recording are considered to hold the copyright over their own voice, regardless of who holds the recording copyright. From the end of the 1990s onwards copyright forms were used more regularly, although there are five recordings of couples where the husband has signed off the copyright for himself and his spouse. It is also the case that the older copyright forms do not mention the BL [British Library] as the party who is keeping the recordings.*¹⁹¹

This pattern broadly follows the history of copyright law, as general awareness of copyright increased in the mid-1990s to early-2000s due to the passing of several

¹⁹⁰ James Louwerse, H., Jan 12, 2023, NCBS Takedown and alterations policy. OHD_Archive. [OHD_RPT_0249](#).

¹⁹¹ James Louwerse, H., Sep 6, 2023, NT BL Report. OHD_Archive. [OHD_RPT_0274](#).

treaties, acts, and laws which considered the copyright of digital material and material that can be shared over the internet, such as the WIPO (World Intellectual Property Organisation) Performances and Phonograms Treaty in 1996, the Digital Millennium Copyright Act in 1998, and the EU Copyright directive in 2001. These were mostly in reaction to the internet and its capacity to easily share material free of charge. We are currently experiencing a similar response with the emergence of AI and the many ethical dilemmas this gives rise to, including the many lawsuits filed against AI companies for allegedly using creative works to train their Large Language Models.¹⁹²

In addition to adhering to data protection and copyright law, archives and similar organisations are increasingly expected to follow a sensitivity check protocol on their material. These are conducted to either protect the donor of the material or, in the case of oral history, the interviewee or even the interviewer, from sensitive or harmful information about them circulating in the public domain. This in addition to protecting the public from accessing material which might be disturbing or triggering.¹⁹³ Because ethical standards are continuously changing and also not universal, sensitivity checks are particularly difficult to execute. For example, when I developed the sensitivity check for Archives at NCBS I had to consider how the staff would handle and contextualise archival material created by British colonisers.¹⁹⁴ I was also asked if I thought there was any sensitive information in the National Trust's sound collection, to which I replied that I did not know without listening to all of them as none of the recordings had gone through any form of prior sensitivity check.

The security, legal, and safety aspects of access are the most challenging for archives and other forms of oral history repositories to maintain, because the majority of legislation, guidance, and lawsuits are unlikely to include a direct steer or

¹⁹² Ben Lutkevich, 'AI lawsuits explained: Who's getting sued?', *TechTarget*, Jun 25, 2024, accessed Feb 6, 2025, <https://www.techtarget.com/WhatIs/feature/AI-lawsuits-explained-Whos-getting-sued>.

¹⁹³ A striking example of this is the debate that ensued when the Dutch National Archives digitised and made partially available the documents of the post-World War 2 trials. See for example: Aleks Phillips, 'Names of 425,000 suspected Nazi collaborators published,' *BBC*, Jan 2, 2025, accessed Mar 13, 2025, <https://www.bbc.co.uk/news/articles/cj6z3g0d3x3o>; Rory Sullivan, 'The cost of transparency: Nazi collaboration files spark painful Dutch reckoning with WWII past,' *euronews*, Jan 10, 2025, accessed Mar 13, 2025, <https://www.euronews.com/2025/01/10/the-cost-of-transparency-nazi-collaboration-files-spark-painful-dutch-reckoning-with-wwii->.

¹⁹⁴ James Louwerse, H., Feb 13, 2023, NCBS sensitivity check doc. OHD_Archive. [OHD_RPT_0250](#).

reference to oral history. Nevertheless, oral history does collect personal data, it may be put online, and it also might contain harmful content. So even though oral history is not explicitly mentioned, the expectation is that these laws, regulations, and guidelines are still followed. Adaptive maintenance is therefore necessary to ensure the material continues to adhere to these guidelines considering legislative or societal changes.

To summarise, the digital revolution has changed and will continue to change public expectations of access, in particular where it concerns access to personal content. Archives and oral history repositories have to adapt their structures to conform to these new expectations and legislation. This adaptive maintenance includes updating digital technology, both software and hardware, but also reviewing and amending the documentation that allows access to oral histories in an ethical manner. However, what I witnessed through my practice and work at various organisations is how completing this adaptive maintenance is much easier in theory than in practice. During my placements and my case study with Seaton Delaval Hall, I observed two main obstacles to adaptive maintenance: lack of flexibility and limited resources including time and funding.

Obstacles to Adaptive Maintenance

Rigid Structures

The systems, structures, and processes archives and oral history repositories use to grant public access to their materials have become increasingly rigid. I experienced this rigidity in two ways: digital systems becoming 'black-boxes,' and the inflexibility of processes and policies.

A 'black box,' in this context refers to, 'a device [...] whose internal mechanism may not readily be inspected or understood.'¹⁹⁵ In order to maintain new digital structures a more specialist body of knowledge is required. The Trust's IT system was a good example of this. I did not have much contact with the IT team at the Trust, but I became closely acquainted with the Trust's IT System. The IT system experienced

¹⁹⁵ Oxford English Dictionary, s.v. 'black box (n.), sense 2,' July 2023.

some problems during my research period,¹⁹⁶ but the biggest obstacle was the rule that no external device could be plugged into the Trust's IT system. I witnessed this during my placement at the Hall when I helped set-up a sound installation. The sound installation consisted of an Mp3 player and a set of speakers. The Mp3 player had to be replaced because a staff member had plugged it into their Trust computer and agreed the player should be encrypted following the Trust's IT recommendations. This made the player unusable because all further uploads were barred. It had to be replaced.¹⁹⁷ To avoid the same thing happening with the new Mp3 player I used my own personal (non-Trust) computer to upload the audio to an Mp3 player. This is, in hindsight, a possible copyright violation because I did not have permission to have a copy of people's voices on my personal laptop. This is what happens when a system is a black-box - a DIY solution that might not comply with ethical requirements becomes a tempting option.

In a report I created for Archives at NCBS advising them on what technology to use to make their oral histories available online, I dedicated an entire section to the necessity of system maintenance that needs to be taken into account when making usage decisions.¹⁹⁸ This was primarily based on my experience with the Trust's IT system and my interview with the retired BALTIC archivist.¹⁹⁹ I presented three options: tailor-made in-house software; existing specialist oral history software; and existing mainstream third party platforms. Tailor-made software gives full control over maintenance and can be adapted to the needs of the oral histories. However, this means that all the maintenance takes place in-house and will incur additional staff time and maintenance. Using existing specialist oral history software would give the organisation less control and they would have to hope the software is maintained which is by no means guaranteed with niche products. Mainstream audio platforms like Soundcloud or Spotify will likely be well maintained, however, they cannot be tailored to individual needs and there are legal and ethical concerns using these

¹⁹⁶ James Louwerse, H., Dec 11, 2024, Screenshots of NT IT incidents. OHD_Archive. [OHD_SSH_0292](#).

¹⁹⁷ James Louwerse, H., Aug 4, 2022, Possible options for MP3 players. OHD_Archive. [OHD_RPT_0323](#).

¹⁹⁸ James Louwerse, H., Jan 23, 2023, Options for making oral histories accessible. OHD_Archive. [OHD_RPT_0256](#).

¹⁹⁹ James Louwerse, H., Nov 29, 2022, Interview with archivist. SDH_PP. OHD_AUD_0306.

types of platforms, especially in relation to data-protection. Decision makers and archivists need to weigh up the pros and cons of cost, freedom, and ethics.

The ability to maintain consumer products and digital systems is a topic for politicians and action groups too. The European Union adopted the 'Right to Repair' in April 2024 in an attempt to push back against built in obsolescence and waste. However, the measure only applies to hardware and does not cover software.²⁰⁰ This means that companies are still able to stop supporting certain software packages, which already happened with, for example, Adobe Flash and Google Jamboard.²⁰¹ Additionally, generative AI might also have something to contribute. OpenAI's co-founder Andrej Karpathy coined the term 'vibe coding' in early February 2025. It refers to prompting a Large Language Model (LLM), such as Chat GPT, Gemini, or Claude to create the code for anything based on nothing but a 'vibe.' For example, the user types in "create an app which does X, with Y features, and a Z aesthetic" and the LLM will write the code. This would make creating tailor-made in-house digital oral history repositories extremely easy and enables the archive or archive-like organisation to create a system which fits their situation perfectly. However, the maintainability of this code is questionable as a senior software engineer at Microsoft is quoted saying in a *Business Insider* article.²⁰²

Another form of rigidity, I observed at my placements sprung from local processes and policies. This was most evident at the National Trust site. As a national flagship trust to preserve and share the nation's heritage, they have a clear collection policy to guide their acquisitions. This policy, however, is solely focussed on the collection of tangible 'objects,' and does not include intangible and digital heritage.²⁰³ Although the acquisition procedure uses 'item' instead of 'object,' it notably emphasises the

²⁰⁰ Yasmina Yakimova, 'Right to repair: Making repair easier and more appealing to consumers,' *European Parliament News*, Apr 23, 2024, accessed Feb 14, 2025, <https://www.europarl.europa.eu/news/en/press-room/20240419IPR20590/right-to-repair-making-repair-easier-and-more-appealing-to-consumers>.

²⁰¹ Chris Fox, 'Adobe Flash Player is finally laid to rest,' *BBC*, Jan 1, 2021, accessed Feb 14, 2025, <https://www.bbc.co.uk/news/technology-55497353>; James Louwerse, H., Jul 7, 2024, Jamboard dies. OHD_Archive. [OHD SSH 0311](#).

²⁰² Hasan Chowdhury, and Jyoti Mann, 'Silicon Valley's next act: bringing 'vibe coding' to the world,' *Business Insider*, Feb 13, 2025, accessed Feb 24, 2025, <https://www.businessinsider.com/vibe-coding-ai-silicon-valley-andrej-karpathy-2025-2?op=1>.

²⁰³ National Trust, *National Collections Development Policy 2019-2024*, 2019, 3.

‘value’ of ‘items’ in terms of monetary value, something which oral history recordings do not generally attract.²⁰⁴

The Trust’s collection policy, acquisition procedure, and other systems stretch beyond their own organisation. As a heritage powerhouse, the National Trust has created a standard for what is generally regarded as meaningful heritage and therefore should be considered and preserved as heritage itself. This agrees with Bowker and Star’s definition of standard as it spans ‘more than one community of practice (or site of activity)’ and has ‘significant inertia and can be very difficult and expensive to change.’²⁰⁵ This rigidity is evident in the fact the Trust has been recording oral history since the 1960s and yet they have not adapted their collection policy and processes to accommodate it. Their restrictive interpretation of what constitutes as heritage is a nationwide phenomenon, reflected in the UK’s delayed ratification of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage in 2023 —twenty years after its creation— suggesting a persistent country-wide focus on tangible heritage.²⁰⁶

The rigidity of this standard blocks adaptive maintenance and instead pushes Trust staff and volunteers to create their own ad hoc oral history collection and curation processes. This is what Bowker and Star would refer to as ‘unique classificatory systems.’ They are significantly less rigid than standard methods, but this is their strength as well as their weakness. ‘Unique classificatory systems’ can be perfectly tailored to a particular Trust site, fulfilling all the needs the Trust’s standard cannot. However, because these are classifications and not standards they lack authority, and so can easily be ignored, misinterpreted, re-mixed with other classifications.²⁰⁷ The Trust’s sound collection is a case in point. There is a clear lack of consistency

²⁰⁴ Collections Management and Care, *Acquisition Procedure*, National Trust, 14.

²⁰⁵ Geoffrey C. Bowker, and Susan Leigh Star, *Sorting Things out: Classification and Its Consequences*, (MIT Press, 1999), 14.

²⁰⁶ Department for Culture, Media and Sport, “‘Oh no it isn’t!’ - Panto set to be formally recognised as UK joins UNESCO Convention,” GOV, Dec 23, 2023, accessed Feb 26, 2025, <https://www.gov.uk/government/news/oh-no-it-isnt-panto-set-to-be-formally-recognised-as-uk-joins-unesco-convention>.

²⁰⁷ Bowker, and Star, *Sorting Things out: Classification and Its Consequences*, 11.

and the recordings vary in quality and in record keeping, curation and metadata: not all recordings are accompanied with the correct paperwork.²⁰⁸

In addition, these 'unique classificatory systems' are often linked to a passionate individual and therefore are of limited duration.²⁰⁹ The National Trust's sound collection clearly reflects the influence of particularly keen individuals who were the driving force behind larger recording projects. When these people leave, the system collapses, as Doug Boyd experienced with Civil Rights Movement in Kentucky Oral History Project, 'following my departure from the Kentucky Historical Society in 2006, the Civil Rights Movement in Kentucky Oral History Project Digital Media Database was digitally abandoned, opened up to online hackers and eventually taken down.'²¹⁰

The rigidity of the Trust's standard for heritage not only stops oral histories being maintained but it forces people to come up with ad hoc solutions that could be ethically dubious (see the limited copyright and reuse agreements in the Trust's sound collection), or deliver low-quality outputs. This is exactly what also happens with the digital black-boxes. People create DIY solutions that do not necessarily follow ethical guidelines because they cannot tailor the system to their needs or fulfil necessary adaptive maintenance in light of changes in their environment, such as public expectations of fast and safe access to content.

Limited Resources

In addition to the rigidity of systems and organisations, the second large obstacle to adaptive maintenance I identified is limited resources, specifically time and money. Adaptive maintenance takes expertise, time and effort and this work will incur costs. However, during my placements I saw that time and expertise were in short supply for several interconnected reasons.

Firstly, it is important to understand how the maintenance of access to oral histories fits within the larger range of responsibilities of the staff at these organisations. Seaton Delaval Hall, where a small team needs to juggle a wide range of activities

²⁰⁸ James Louwerse, H., Jun 22, 2023, C1168 Audit 2023. OHD_Archive. OHD_COL_0262.

²⁰⁹ Bowker and Star, *Sorting Things out: Classification and Its Consequences*, 15.

²¹⁰ Boyd, "'I Just Want to Click on It to Listen': Oral History Archives, Orality, and Usability," 90.

and responsibilities is, for example, simultaneously: a source of entertainment for the public; a group of buildings with facilities such as toilets and a cafe; landlord to some surrounding farms; responsible for the restoration of historical artefacts; and a place to do volunteering. The British Library is, in addition to a national library and archive, also a tourist attraction that offers exhibitions and a series of public events. However, unlike at the Hall where the portfolio of duties includes the responsibility for the car park, the British Library staff cohort is significantly larger and the individual duties more narrowly defined. Yet, during my British Library placement, it struck me that staff in the oral history department were still involved in a plurality of activities: a new publication of the National Life Stories Annual Review; organising a symposium; and leading the Special Interest Groups. Archives at NCBS is a smaller organisation than both the Hall and the Library, but it still consists of two distinct areas of activity: (1) a '**public archive** which aims to collect archival material and make it publicly accessible;' and (2) a '**knowledge hub**, where the archive wraps around people's interests and lets them research new and innovative methods of archiving and working with and in archives.'²¹¹ The different characters and identities of these organisations demand varying forms of labour from its staff, including, but not generally exclusively, maintenance labour. Due to the limited hours in the day there is a natural hierarchy of activities and adaptive maintenance with its complex questions and demands on staff time and engagement, is not generally a priority. This is skewed even further by money.

As Ukeles highlighted, maintenance is not valued as much as development.²¹² This is also the case with oral history where there is a strong focus on recording, adding new material, rather than on archiving, preserving what is there and making it discoverable.²¹³ Funding bodies focus on recordings as these deliver faster and more readily measurable results, while maintenance cannot grab the headlines with its modest aim to keep things the same. As a result, those responsible for maintenance often shift their attention to revenue-generating activities, such as exhibitions, to sustain their organisations, leaving even less time for maintenance.

²¹¹ James Louwerse, H., Mar 20, 2023, What is Archives at NCBS?. OHD_Archive. [OHD_GRP_0261](#).

²¹² Danchev, and Ukeles, 'M81. Mierle Laderman Ukeles: Maintenance Art Manifesto,' 382.

²¹³ Frisch, 'Three Dimensions and More: Oral History Beyond the Paradoxes of Method,' 222.

However, some aspects of maintenance, such as digitisation, manage to attract funding. For instance, in 2022 the Archives at NCBS secured funding for a large-scale digitisation project,²¹⁴ and the British Library completed its ambitious Unlocking Our Sound Heritage (UOSH) project in 2023, thanks to National Lottery funding.²¹⁵ Yet, this support does not always extend to cover essential actions such as updating legal documentation to ensure compliance with evolving regulations. This is what I experienced first-hand at the British Library when I completed the copyright audit of the National Trust collection most of which had been digitised during UOSH.²¹⁶ It is indicative that I carried out this audit as a volunteer; there was no funding available so the investigation could only be carried out by drawing on ‘free’ labour, ‘free’ maintenance, evoking Ukeles’ manifesto, ‘The culture confers lousy status on maintenance jobs = minimum wages.’²¹⁷

Alongside the digitisation of archival material, funding is occasionally awarded to digitising entire systems. However, digitising a system does not signify the end of the line, the final station stop. Maintenance, including adaptive maintenance, remains essential: neglecting to adapt and update digital infrastructures will leave it vulnerable to cyber-attacks, as demonstrated by the British Library’s experience in October 2023.²¹⁸ On top of that, digitisation of archival material is also an ongoing process, since new material is produced and uncovered in non-digital formats.²¹⁹

It is likely that digitisation projects are funded because it is a form of adaptive maintenance which delivers a quantifiable output: X amount of archival material was digitised and made available online. The more mundane, or ‘boring,’ as Star

²¹⁴ ‘Grants awarded,’ *Arcadia Fund*, n.d., c. 2022, accessed Feb 13, 2025, <https://arcadiahfund.org.uk/grants-awarded?recipient=%5B%22national-centre-for-biological-sciences%22%5D#grant-list>.

²¹⁵ ‘British Library pledge to save the nation’s sounds secures £9.5m HLF boost,’ *Heritage Fund*, May 20, 2015, accessed Feb 13, 2025, <https://www.heritagefund.org.uk/news/british-library-pledge-save-nations-sounds-secures-ps95m-hlf-boost>.

²¹⁶ James Louwerse, H., Jun 22, 2023, C1168 Audit 2023. OHD_Archive. OHD_COL_0262.

²¹⁷ Danchev, and Ukeles, ‘M81. Mierle Laderman Ukeles: Maintenance Art Manifesto,’ 382.

²¹⁸ Simon Bowie, ‘The British Library hack is a warning for all academic libraries,’ *London School of Economics Blog*, March 19, 2024, accessed Jan 7, 2025, <https://blogs.lse.ac.uk/impactofsocialsciences/2024/03/19/the-british-library-hack-is-a-warning-for-all-academic-libraries/>.

²¹⁹ James Louwerse, H., May 23, 2023, Collection of photographs of The British Library. OHD_Archive. [OHD_COL_0271](#).

writes,²²⁰ aspects of maintenance such as the copyright forms and the continuous software updates are less likely to be covered as part of a grant or sponsorship. It appears ironic that funding bodies that wish to invest in the preservation of our history and heritage, do not recognise that preservation requires long term maintenance.

The two obstacles, lack of flexibility and limited resources, have restricted the capacity to complete the adaptive maintenance I described at the start. However, it is essential that we recognise the unique formulation of each situation; how each organisation will have different aims, different staffing structures, and different sources of funding resulting in different capacities for maintenance. For example, Archives at NCBS cannot follow the same maintenance requirements as the British Library, since they are working with a different set of staff in a different country, with different structures and cultural expectations. In the case of the National Trust, each individual site is run autonomously causing each to have some variation of staffing structure and volunteers again altering the capacity to execute maintenance. The expectation of access has changed on a global scale, but within every unique situation there are additional micro changes and contributing factors which also need to be considered.

There is no general theory of maintenance. However, compiling my portfolio caused me to expand my idea of maintenance. Maintenance is not just hard hats and screwdrivers. Neither is it codes and mops. Maintenance is a pervasive aspect of life which must occur continuously to keep structures in existence and functioning. It is, however, tricky to articulate. I was able to articulate the findings of my research and placements, by centring my portfolio around what I wanted to maintain – access to oral histories – and then working backwards. This revealed that maintenance is not simply about preserving physical or digital infrastructures, but about adapting to evolving expectations of access, such as increased speed and safety, due to technological advancements and other societal changes. However, this adaptive maintenance —the act of modifying systems to meet changing needs— is often hindered by inflexible digital and procedural structures and systems which do not

²²⁰ Star, 'The Ethnography of Infrastructure,' 377.

accommodate tailoring or adaptations, and limited funding which forces those maintaining oral histories to dedicate less time to essential (but 'boring') maintenance. Within my placements and case study the challenge for me was to create outputs which were spaces and pathways where maintenance, adaptive or otherwise, can occur, despite these obstacles. When the outputs were brought together to form my portfolio it revealed a method of designing which I dubbed wicked maintenance: a form of design which accepts wicked problems as unsolvable and uses the features of maintenance to inspire outputs which can be easily integrated into systems and create room for adaptive maintenance to occur.

Wicked Maintenance

*Design is also cleaning.*²²¹

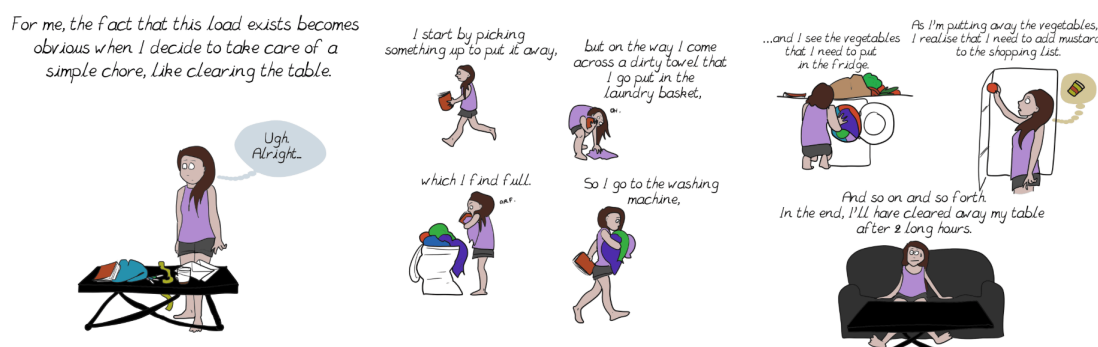
In part one of this critical commentary I discussed the ten properties of wicked problems and reflected on how Rittel and Webber conclude they are inherently unsolvable or, at the very least, a situation where attempting a solution might be ethically questionable. I then discussed how, in the decades succeeding Rittel and Webber's paper, designers and design theorists were considering how this wickedness could be managed responsibly through such concepts as 'transitional design' or addressing 'matters of concern.'²²² I would like to contribute to this conversation by sharing how, rather than attempting to solve the wicked problem of maintaining access to oral history with a single, all-encompassing solution, I designed pathways to support others in maintaining access. I dub this form of designing, which does not aim to 'tame' or solve the wicked problem, but accepts it as the natural state of the world - wicked maintenance. During my project I realised how the inherent properties of maintenance are effective at navigating wicked problems, and it was my duty as a designer to create pathways and spaces to encourage and support maintenance. In the following I will outline how I found maintenance effective in managing the wicked properties of a situation, how this altered my designing into wicked maintenance, and finally how and where wicked maintenance can be utilised by others.

²²¹ Papanek, *Design For The Real World: third edition*, 3.

²²² Tonkinwise, 'Design for Transitions—from and to what?,' 85-92; Spencer, and Bailey, 'Design for complex situations: Navigating "matters of concern",' 69-83.

I divided the properties of wicked problems into two categories: (a) finding a solution is hard, and (b) irreversible consequences. As previously mentioned, designers navigate the category (a) by simultaneously constructing the problem and developing solutions.²²³ The latter category (b) has been central in the discussions around the ethics of design, with designers and design theorists creating methods to curb design's destructive tendencies.²²⁴ Throughout my research I witnessed how the features of maintenance can handle both these categories.

Starting with the first category, maintenance is able to find solutions to wicked problems, because, like design, it is reflective and simultaneously develops the problem and solutions, or situation and opportunities.²²⁵ Maintenance is reflexive - it is arguably a form of reflection-in-action. This is most evident in domestic labour. In a comic entitled, 'The Gender Wars of Household Chores,' the French comic artist, Emma, explains the action of clearing a table.²²⁶



The actions depicted in the comic are comparable to Schön's concept of reflection-in-action. The action of clearing the table is altered and adjusted in reaction to new information. Like the jazz musicians in Schön's example, the person clearing the table is 'thinking what they are doing and, in the process, evolving their way of doing it.'²²⁷ Maintenance actions are determined by the environment, therefore

²²³ Kimbell, 'Rethinking design thinking: Part I,' 292.

²²⁴ Tonkinwise, "'I prefer not to': Anti-progressive designing,' 74.

²²⁵ Bailey, et al., 'A design-led approach to transforming wicked problems into design situations and opportunities,' 95-127.

²²⁶ Emma, 'The gender wars of household chores: a feminist comic,' *Guardian*, May 26, 2017, accessed Feb 13 2025, <https://www.theguardian.com/world/2017/may/26/gender-wars-household-chores-comic>.

²²⁷ Schön, *The Reflective Practitioner*, 56.

maintenance is capable of reacting to the unique nature of individual wicked problems. Maintenance could therefore be considered as a form of design. It uses reflection-in-action to simultaneously understand its situation as well as develop solutions, which follows the writing of many design theorists, including Rittel and Webber, 'Problem understanding and problem resolution are concomitant to each other.'²²⁸

However, what makes maintenance different from design is how it manages category (b), irreversible consequences. It does this in two ways. Firstly, those who do maintenance work know their work continues beyond tomorrow, so, like wicked problems, it has a 'no stopping rule.'²²⁹ Secondly, maintenance workers are aware of their present shortcomings – there will be more garbage come Monday morning, something will break, change, or fall into disrepair. They accept things will go wrong, making them more resilient to the unintended consequences of any intervention within a wicked problem. In addition to unintended consequences the wicked problem is also likely to evolve. As I demonstrated in more detail in the previous section, this is managed by adaptive maintenance, which allows for adjustments to systems as expectations shift and the wicked problem evolves.

This long-term perspective and maintenance's ability to react to its situation results in solutions that fulfil Rittel and Webber's criteria to solutions for wicked problems – a solution is "good" or "bad" or, more likely, as "better or worse" or "satisfying" or "good enough."²³⁰ Maintenance work is about ensuring things are 'good enough,' it is aware its work is never complete, and knows the situation will need to be revisited in the future. This acceptance that there will be garbage after the revolution, to paraphrase Ukeles, is what I believe makes maintenance different from design. Design is about creating new futures, maintenance is about ensuring there still is a future. This distinction between design and maintenance is why I approached the issue of oral history access and reuse through the lens of maintenance, as the

²²⁸ Schön, *The Reflective Practitioner*; Dorst, and Cross, 'Creativity in the design process: co-evolution of problem–solution,' 425-437; Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 161.

²²⁹ Rittel, and Webber, 'Dilemmas in a General Theory of Planning,' 162.

²³⁰ Ibid.

fundamental aim of archiving and preserving these recordings is to ensure they still exist in the future.

Creating Spaces

Wicked maintenance is the action of creating spaces for these 'good enough' opportunities to be found and to create foundations for slow and incremental improvements to a situation over a long-period of time. These spaces however, will vary in completion. They are 'good enough' and embody maintenance's long-term perspective and acceptance of failure. For example, some outputs I created during my project were complete, fully formed processes which I simply handed over to those maintaining the situation. Other outputs offered a basic scaffolding but required some tweaking and adaptation from the internal staff. And others again simply displayed my knowledge of a situation in an effort to probe a conversation.

An example of a fully formed output was the takedown policy for Archives at NCBS. A takedown policy is a space where maintenance occurs, as it ensures laws and regulations are followed and people's privacy is protected thus maintaining legal and just access. I produced three iterations and then handed everything over to my colleagues. They now have a takedown policy on their website.²³¹ I do not doubt they have adapted and reworded my work, but the basic process is the same. I was able to create this fully formed output for several reasons. Firstly, I was developing it for the specific organisation I was working in, meaning I had access to existing systems and processes. Secondly, because there was no pre-existing takedown policy, there were few restrictions on what I could write. And finally, I had regular feedback sessions with the head of the archives, which gave me confidence my work was approved of by those who would implement it once I left.

The materials I created for Seaton Delaval Hall are examples of outputs where I combined basic scaffolding with a certain level of ambiguity. The Seaton Delaval Hall oral history strategy which I developed in collaboration with staff members of the Hall focused mainly on managing the ethics of oral histories and mapping the training

²³¹ 'Archives at NCBS: Digital Material Take Down Policy,' <https://archives.ncbs.res.in/takedown>.

needs.²³² Topics like the storage of oral history recordings, both interim and long-term, were left open because the Hall has to adhere to the Trust-wide IT system that does not accommodate oral history.²³³ Seaton Delaval Hall, as all Trust properties, has an arrangement to archive their recordings with the British Library. However, at the time of writing, this is not an option because of the cyber-attack on the Library. The material has been archived at the Northumberland Archives with an option of moving it to the Library in the future.²³⁴

The guide I developed for the Hall's Research Room was ambiguous for different reasons. Certain sections in the guide I left empty because I did not feel I had the authority or enough knowledge to say what should or should not happen. I indicated these sections should be filled by someone who does have the appropriate knowledge and authority, and left advice on how they could be filled.²³⁵ This was partially due to the scale of the Research Room design, which was far more extensive than the takedown policy for Archives at NCBS, as it included a volunteering role, a physical space, and a digital system. It was also the case that the staff at the Hall were not ready to fully implement and set up the Research Room, because of time constraints and a degree of uncertainty about the long term exclusive availability of the space.

The level of ambiguity increased again when I created outputs on a National Trust-wide level. Each Trust site is autonomous and will vary in staff structure, number of volunteers, and general resources. A one-size-fits-all solution would therefore not be effective and would be considered unethical following Rittel and Webber's idea of 'taming' wicked problems. The new guide to oral history replacing the current outdated one was not a formulaic "how-to" guide, but accommodated the individual challenges of maintaining access to oral histories across every unique site by

²³² James Louwerse, H., Jul 1, 2024, SDH OH workshop. OHD_Archive. [OHD_WKS_0297](#); James Louwerse, H., Aug 5, 2024, SDH oral history strategy. OHD_Archive. [OHD_RPT_0296](#).

²³³ This was noted by one of the workshop participants in their feedback form. James Louwerse, H., Jul 1, 2024, SDH OH questionnaire. OHD_Archive. [OHD_FRM_0303](#).

²³⁴ James Louwerse, H., Oct 28, 2024, Receipt of deposit. OHD_Archive. [OHD_RCP_0293](#).

²³⁵ James Louwerse, H., Oct 31, 2022, Research Room Guide. OHD_Archive. [OHD_RPT_0195](#).

emphasising the need for planning and engagement with key stakeholders, thus creating spaces.²³⁶

My most ambiguous outputs were the status report of oral history at the Trust and the info-graphic I created for Archives at NCBS.²³⁷ Both addressed parts of their maintenance systems I could not change in the limited time I was working with them. These outputs had two main functions: educate and advocate. In both cases I laid out the current status of their respective maintenance systems, and offered opportunities to improve them. The Trust report, specifically, was developed as a resource to help staff advocate for oral history's importance within the organisation and start the process of elevating oral history within the Trust.

The level of ambiguity I created within my outputs was generally dictated by the size of the obstacles. If the system I was working with was particularly rigid the output would be more ambiguous, because more time and resources would have to be allocated to change it. The takedown policy for Archives at NCBS is well-rounded and complete, because there was no existing policy and the archives are relatively new.²³⁸ The status report I made for the National Trust, on the other hand, was more ambiguous, as the Trust systems are extremely rigid due to size and age.²³⁹ Another reason for ambiguity is when the number of resources available was unknown. For example, the Trust's new oral history guide is ambiguous because it is not possible to know the number of resources every Trust property has access to.²⁴⁰

In general, the varying levels of ambiguity in my outputs were intended to ease adoption of my work. Gaver talks of ambiguity as a tool 'to engage users with issues without constraining them.'²⁴¹ Spencer and Bailey discuss how the designer's work might end when a certain level of understanding has been reached about a particular

²³⁶ James Louwerse, H., Aug 16, 2024, NT OH guide. OHD_Archive. [OHD_DSN_0299](#).

²³⁷ James Louwerse, H., Aug 16, 2024, NT OH report. OHD_Archive. [OHD_RPT_0298](#); James Louwerse, H., Mar 20, 2023, What is Archives at NCBS?. OHD_Archive. [OHD_GRP_0261](#).

²³⁸ James Louwerse, H., Jan 12, 2023, NCBS Takedown and alterations policy. OHD_Archive. [OHD_RPT_0249](#).

²³⁹ James Louwerse, H., Aug 16, 2024, NT OH report. OHD_Archive. [OHD_RPT_0298](#).

²⁴⁰ James Louwerse, H., Aug 16, 2024, NT OH guide. OHD_Archive. [OHD_DSN_0299](#).

²⁴¹ Gaver, Beaver, and Benford, 'Ambiguity as a resource for design,' 233.

issue, and the work is handed over to parties who are more suited to implement change.²⁴² Wicked maintenance embraces ambiguity but is conscious of what level of ambiguity is useful to those who have to implement, and live and work with, the output.

Wicked Maintenance as Design

Wicked maintenance is particularly suited for designing within large, taken for granted organisations. This type of organisation is widely regarded as constant and eternal; they are expected to carry out their duties, which, more often than not, concern maintenance. The National Trust maintains the country's heritage. The NHS maintains the nation's health and well-being. Local councils maintain their localities. Their work cannot stop. Wicked maintenance is entirely organised and orientated around the work these institutions do. It allows for – even draws on – constructive camaraderie and trust between the designers and the organisation's staff. The trust I built up while working with the Seaton Delaval Hall was essential to the staff adopting and accepting my work.

Bailey's recent framing of design as simultaneously critical, analytical, generative, synthetic and visionary offers a useful framework with which to summarise wicked maintenance:²⁴³

- **Critical:** Wicked maintenance challenges mainstream ideas by focussing on the taken-for-granted parts of society, those that continue to work 'after the revolution.'
- **Analytical:** Wicked maintenance uncovers maintenance needs - the necessary, but 'invisible' parts of these taken-for-granted organisations.
- **Generative:** Wicked maintenance looks for points of weakness and failure, anticipates change, and generates methods and tools to manage these. These tools are pitched with varying levels of ambiguity to make adoption and implementation easier.
- **Synthetic:** Wicked maintenance considers all the different parts of a system, the legal parts, the digital systems, the workplace culture, cash flow etc.

²⁴² Spencer, and Bailey, 'Design for complex situations: Navigating "matters of concern",' 71.

²⁴³ Mark Bailey, et al., 'Design Facilitation: mid-term impacts and outcomes of a design-led innovation readiness programme for micro-SMEs,' *24th DMI: Academic Design Management Conference Design & Innovation at a Crossroad*, (2024): 8.

- **Visionary:** Wicked maintenance understands things do not need to be solved today but sets the groundwork for better and more sustainable futures.

All of the above happen simultaneously throughout any design process but what makes wicked maintenance different is how it embraces Rittel and Weber's idea of solutions to wicked problems being 'good enough.' The aim of a wicked maintenance practice is to help people maintain better, in the full knowledge that it will have to be done again, and again. Wicked maintenance recognises the efforts and contribution of those who already spend their days combating the wicked problems of the world through their labour and creates space within existing systems for this work to be fulfilled to its best potential.

Conclusion

Oral history has a 'Deep Dark Secret' everyone in the field is aware of - oral histories are rarely reused.²⁴⁴ This has been, is, and will continue to be debated for years to come. This research project investigates one of the lesser discussed aspects of oral history archiving: maintenance or what happens 'after the interview'.²⁴⁵ More specifically, I looked at how access to oral histories is – or is not – being maintained and how this essential facilitatory work can be improved and optimised. Due to the invisible nature of design, I adopted an action research (AR) strategy for my research through design (RtD) project to observe and experience three organisations that maintain oral history. I positioned myself as a 'friendly outsider' to gain the trust of my colleagues working within my case study, Seaton Delaval Hall and the wider National Trust, and two additional placements at Archives at NCBS and the British Library.²⁴⁶ The explanatory and exploratory design artefacts I created to probe and stimulate discussion were brought together to form a domain of design which illustrates the 'wicked problem' of maintaining access to oral histories.

This domain of design takes the form of a portfolio of practice presented in a website format, accompanied by this critical commentary that explores how the digital revolution changed public expectations of access, particularly in terms of speed and safety. Altered expectations require archives and other oral history repositories to adapt their digital systems, legal frameworks, and archival practices to achieve a new level of access. However, this adaptive maintenance is often hindered by a lack of flexibility and limited resources. The outputs I created throughout this project sought to address these challenges by creating spaces where my colleagues at my placement organisations can complete the necessary adaptive maintenance. The outputs purposefully vary in ambiguity to make them easier to integrate into the existing systems.

²⁴⁴ Frisch, 'Three Dimensions and More: Oral History Beyond the Paradoxes of Method,' 223.

²⁴⁵ Morgan, 'When the crisis fades, what gets left behind?,' <https://www.ohs.org.uk/general-interest/when-the-crisis-fades-what-gets-left-behind>.

²⁴⁶ Greenwood, and Levin, *Introduction to Action Research 2nd Edition: Social Research for Social Change*, 125.

This is a multidisciplinary project and the findings presented in the domain of design contribute new insights and understanding to the fields of oral history, public history, and design. Oral historians will take away a greater awareness of the various threats and maintenance issues attached to the creation and collection of oral histories and the labour required to ensure access to their recordings is sustained. Public historians and those working within the heritage industry might gain an understanding of the necessity, as well as the restrictions, of 'industry' standards and how our often unconscious ideas of heritage have influenced the way we build our systems. My contribution to design is *wicked maintenance* - a form of design practice which puts maintenance front and centre, and which recognises that 'good enough' is a fruitful, sensible, workable category when creating responses to wicked problems.

There are limitations to this research. I worked with three organisations that maintain access to oral histories in two different countries on two continents. My hosts offered me unmissable opportunities and invaluable insights, but I am aware that my exposure to the world of practice still offered a sample, a limited frame of reference. No doubt my experience on-site will have had an impact on my views and conclusions as Dorst and Cross rightly observed,²⁴⁷ and I might have come to different insights if the sample was wider or simply different. My frame of reference is also strongly influenced by my roots as an artist and feminist, who was deeply moved and inspired by the work of Mierle Laderman Ukeles half a decade before this research project started. In addition, because my project involves digital systems which are subject to rapid changes, it is as much as guaranteed that some more technical aspects of my research will not stand the test of time. During my study alone the world experienced a global pandemic, the emergence and rise of generative artificial intelligence, both of which had a great impact on my project.

As has been thoroughly explored in this research project the situation surrounding the maintenance of access and reuse is a wicked problem. Wicked problems are complicated, subjective, and dynamic. I therefore recommend that this topic, or certain aspects of the topic, remain a focus of continuous research. I argue in favour

²⁴⁷Dorst, and Cross, 'Creativity in the design process: co-evolution of problem–solution,' 431.

of an opening up of research efforts, one that widens its focus to include what ultimately facilitates innovation and insight and is thus worthy of attention in its own right. There is no general theory of maintenance or a broad field of maintenance studies. In these unstable times where resources are dwindling it is time to consider how fields can work together to create stability through the framework of maintenance.

When I started this project I wanted to make a product, something tangible that would solve the problem of limited oral history reuse in (preferably) one-shot, one might even call it a revolution. But I found out that after the revolution there is garbage to pick up. In her manifesto Ukeles pits development and maintenance against each other. My research has made me realise development and maintenance have to work together. When you create a product, you also create its destruction. If you ignore the maintenance needed to prevent early destruction, your product will have a very short shelf life and few happy customers. We need to make sure the insights and knowledge within these oral histories remain available and attractive resources for present and future academic researchers, writers of narrative histories, and members of the general public. Without adaptive maintenance the oral histories will become unusable. You cannot have development without maintenance. But equally you cannot have maintenance without development. Ukeles two separate systems, her life and death instincts, are in fact two sides of the same coin. Wicked maintenance recognises this and with realistic and flexible adjustments undermines the absolute opposites of Ukeles' framework. Maintenance can claim some of the shine and attraction of innovation and revolution when we cast it as movement, as necessary development. Wicked maintenance is about movement, a movement that may not strive to create a *new* future, but it strives to ensure there is one, which is, after all, why we have archives and heritage sites – to keep the past to inform the future.

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