'The Cabinet of Obsolete Technologies': Creating a Teaching Collection for UCL Students

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'The Cabinet of Obsolete Media has been conceived as a teaching collection of media and technologies of the image at the UCL History of Art Department.
The Cabinet aims to collect devices and technologies that represent the development of time-based media, particularly as resources for academic art historical study and reference.'

- from *www.cabinetofobsoletemedia.com*

I initially approached this project with an understanding that the research I would conduct would not be purely technical, scientific, or based on data collected from surveys. I was aware that I would be describing the teaching collection's acquisitions, as well as photographing, cataloguing, and understanding the various functions of these items. Additionally, I knew that I would be enquiring into the applications of object-based learning, as the teaching collection is intended to be used as a learning resource primarily for History of Art and Material Science students. As this project has developed, however, I have also become engaged by the question of what it means for intermedia to be classified as obsolescent. I have been encouraged by my supervisors to follow my interest in questions of sustainability and renewal of technologies; for I have found that obsolescence, rather than marking the 'death' of media, actually provides an item with the opportunity for resurgence. This resurgence does not guarantee that the item will achieve the same popularity or function in quite the same way as it was when it was initially introduced for commercial or independent use; the renewal of 'outmoded' media is interesting because the item is utilised for different purposes, often by people that the item was not initially marketed to, and not in spite of this fact.

Having a background in History of Art rather than Material Science, I have found that this project has made me enquire into matters of materiality and has provided me with a profound understanding of the effects of object-based learning. As I have been holding, photographing and researching the items in the cabinet, I have found myself acquiring knowledge through my interactions with the objects; an understanding that is profoundly different than text-based or lecture-based learning. Due to this experience, I believe that I have a better understanding of the benefits of tangible learning; how History of Art and Material Science students may find it beneficial to gain knowledge through physical interactions with objects, rather than reading about or observing pictures of the objects. Week by week, I undertook a variety of tasks that required me to utilise and unlock different sets of skills – some of which I did not realise I had before this project. This project has allowed me to work flexibly and creatively, whilst strengthening my analytical and research skills.

Week 1

The first week of this project served as an introduction to the research I would be undertaking in the coming weeks. I was given a guide of the History of Art department, and was shown where the *Cabinet* resided, in my supervisor's office. I was also given a desk space to work at in the departmental fellows' office; this ensured that I would be able to access the *Cabinet* when needed.

During this week, I started to work on my descriptions for the *Cabinet* items, in particular the 2017 and 2018 acquisitions. My preliminary research focuses primarily on the technical aspects of the items, such as when and where they were manufactured, and how they functioned. To help with writing these descriptions, I read through the MA students' descriptions that have been uploaded to the *Cabinet* website. Many of these descriptions expanded on why the items in the *Cabinet* went out of production or widespread use and revealed the technologies that had come to replace them. Some of the descriptions also gave examples of how the objects were being used today, for instance how 35 mm film is still being used by some photographers and videographers to create effects that digital mediums cannot reproduce.

Additionally, I was given access to the departmental camera that I would need to understand how to use in order to take photographs of the acquisitions. These photographs would be uploaded to the *Cabinet* website, for cataloguing purposes. I would be using one of the departmental seminar rooms for my photography, but I found that the natural light in the room was quite poor. To solve this issue, I created makeshift 'reflectors' out of aluminium foil in order to improve the quality of the photographs I would be taking.

Many questions were generated this week, and I found myself considering how the items that I was researching about and documenting were used in their original contexts. Moreover, I considered what it meant that these objects were now being stored in a collection for the purposes of teaching, and how their **'function'** had been altered over time.

In what ways can intermedia 'function'?

- ⇒ I have found that the functionality of intermedia is more complex than whether an item can be turned off and on. For instance, we may consider a video camera is in 'working order' when it can be used to captured video footage, yet we seldom consider how this object 'works' when broken, without film (in film cameras), or even when the object is simply turned off. If we only consider items to 'function' when in 'working order', then we overlook the true potential of these items. Though many of the mediums in the *Cabinet* no longer operate as they were originally intended to, this collection demonstrates how these objects can be repurposed as teaching items. In a similar fashion to how palaeontologists 'use' bones and fossils to learn from and teach with, so too can we use defunct media as evocative items. The objects in the *Cabinet* can invoke an imaginative response, as we can mentally consider how these items once operated. When an item is no longer in 'working order', this isn't to say that the item no longer functions – it just functions in a different, and quite interesting, way.

Week 2

In the second week of this project, I continued writing descriptions for the intermedia items, in particular the View-Master stereoscope and LaserDisc. The stereoscope was of particular interest to me, as I found that the View-Master company itself is still in operation, though it no longer produces the stereoscope model that has been acquired for the cabinet. View-Master were once a company that produced stereoscopes for tourism; the slides that slotted into the devices featured pictures of various locations around the world, accompanied by historical information and interesting facts. This company now uses virtual reality technology to create entertainment systems for children, who can play games or learn through the View-Master headsets. The View-Master stereoscope is a good example of how intermedia evolves. Today, we longer need stereoscopes for tourism – physical tourist brochures, package holiday websites and even Instagram serve their purpose in marketing holiday destinations to people. View-Master, therefore, has adapted their branding and focus, creating products that look similar to their original models – but updated with modern technologies, and marketed to a new, younger audience for entertainment purposes.

Thus, my research this week concerned the items in the cabinet; I expanded upon my knowledge of how these technologies were developed. I increased my awareness of how these technologies operated in their original contexts – the year that they were manufactured, distributed, and used – in order that my descriptions could be as detailed and insightful as possible. My research also contributed to my understanding of intermedia in general, which I found was highly useful as I continued the project, particularly as I came to individualise and develop the project in the later weeks. I also began to conduct research on other collections that UCL has in different departments. I would expand on this research later on in the project and begin to make connections with these collections so that I could visit them and gain a better understanding of how they are being utilised for teaching purposes in UCL.

Where and how can we learn about intermedia?

⇒ When researching the cabinet items, I found that unconventional (in terms of academia) sources were often the most in-depth and reliable – for instance, hobby websites, bidding sites, and catalogues compiled on other media technology websites. The majority of these items were created by companies that no longer exist – or, if the companies are still in operation, they are creating entirely new products and seldom mention their original products on their websites. There are few academic resources for studying intermedia, especially if specific information about certain items is required. As my research developed, and I began to employ different research methods (such as enquiring into science and technology journals, and even anthropological writing), I became aware of a branch of study called **media archaeology**. This field, though it is not recognised as a formal discipline yet, seeks to improve the accessibility of information on intermedia. It also explores how descriptive accounts of technologies cannot replicate the haptic experience one has with these items – written accounts are not adequate substitutes for the individual's experience of engaging with these objects. I considered this more in-depth in **week 4** of the project.

Week 3

By the third week of the project, I understood more about the nature of the media that I was working with and became more confident in the research and work that I was conducting. This week was crucial for the development of this project, as I met with individuals who provided me with key information and resources.

Like the previous two weeks, I was continuing the process of photographing the items in the cabinet. I was also experimenting with editing software, using the images that were already uploaded to the *Cabinet* website by Caitrin Anderson (an MA student who had created the website itself) as a point of reference for the aesthetic nature of the images. By this point in the project, my research was naturally developing; I found that I was no longer solely concerned with the technical specifications of the items, as I was also considering more philosophical questions pertaining to the materiality and temporality of the intermedia.

I also met with my departmental librarian to discuss methods of research for the project. Liz Lawes, my departmental librarian, introduced me to two different databases that would be useful for writing the descriptions of the intermedia: ProQuest and Web of Science. I found it interesting that these two databases were science and technology based, as it demonstrated to me how the arts and sciences can often **crossover** when matters of materiality are concerned. Liz also taught me how to link Google scholar with the UCL library, which became invaluable to me when I required physical copies of texts to help with the descriptions and writing for the *Cabinet* website.

As my supervisor Hanna Hölling would not be in the UK for the last weeks of my project, I had a meeting with my second supervisor, Andrea Lathrop Ligueros, whose PhD research concerns the medium of Polaroid and its recent resurgence of popularity for use among photographers.

The crossover of arts and sciences

⇒ Matters of materiality require one to consider and employ both an **artistic** and **scientific** viewpoint. A scientific perspective can allow us to understand and assess what an item is composed of, what components it has, and how it works. An artistic viewpoint will implore us to consider the aesthetic value of the object, its tactility, and how it may function differently depending on what space it is placed in. When assessing certain features of media, such as **haptic feedback**, we are required to combine and employ both perspectives. Here, I have used the example of haptic feedback, as this is a scientific term with humanist and artistic implications. Haptic feedback can be most implemented in technologies such as phones, computers and game controllers; the vibrations and sounds that these objects emit when certain actions are performed by the user are responsive in a way that facilitates two-way communication between the user and technology. Haptic feedback is not limited to these technologies, however; in 2011, KJ Kuchenbecker proposed '**haptography**', haptic feedback in photography, wherein the objective of taking a photograph would be to record the individual's physical interaction with the world. This idea stems from interactions with older cameras and Polaroids. In fact, I believe that the renewal of popularity of the polaroid can be linked to how the devices produce a definite sound and unique feeling as a photo is being taken. Digital devices try – often unsuccessfully – to emulate these nostalgic feelings and sounds. The audio and haptic feedback of a Polaroid camera does not alter the quality of the photo; however, it can be said that it does heighten the user's experience.

Week 4

In the fourth week of my Laidlaw project, I started to decide on which direction my project would take. In order to communicate effectively with my two supervisors, a shared Dropbox that we could all upload to and edit was created. Through discussions with my second supervisor, Andrea, I found that I was gravitating towards questions of obsolescence, initially considering how I could define this term, and how it related to the objects in the *Cabinet*. With guidance, and using academic books and journals, I started to conduct some in-depth research into obsolescence, materiality and the transient nature of technology.

The Routledge Companion to Media Technology and Obsolescence

Mark J. P. Wolf, 2018

⇒ This book provides descriptions of media, tracking the development of technologies. Many of the media items that are written about are present in the *Cabinet*. This book informed me of the term 'dynamic obsolescence', coined by Alfred P. Sloan Jr. in 1924. This term refers to how companies may purposefully plan obsolescence; this is done so that consumers will need to update or replace their products, often casting aside 'old' items to make room for something 'better'. This book also summarises the **'stages of obsolescence'**:

1. The technology is no longer the best of its type
2. The technology is no longer mass-produced
3. The technology becomes rare and collectible
4. The technology is at risk of disappearing; we know only of its existence by documentation

Media Archaeology: Approaches, Applications, and Implications

ed. Erkki Huhtamo and Jussi Parikka, 2011

⇒ Huhtamo and Parikka attempt to define **media archaeology** – a term that is unwilling to let itself be categorised in any distinct way. They provide insight into what inspired the creation of the term, which includes theories pertaining to cultural materialism, visual studies, and media anthropology, among others. They outline the role of the media archaeologists, who initiate discussions and challenge culture through utilising an array of textual, auditory and visual materials. Moreover, they consider how **media archaeology** is inherently nomadic in nature, due to its ability to navigate between disciplines. Media archaeology, though it is not an official academic discipline, allows for different perceptions of media; it challenges the way in which media is advertised and commercialised. One way in which it does this is by demonstrating how 'past' media interferes with the present, despite companies taking great efforts to render this media obsolete to ensure that it is cast aside for the 'new'.

The Waste Makers

Vance Packard, 1920

⇒ Written in 1960, this text explores the idea of planned obsolescence. Vance Packard considers a speculative 'Cornucopia City'; a place where all devices, cars and objects are made of a material engineered to wear out quickly, requiring to be in a constant state of buying – which makes selling easy. This work can be seen as prophetic, as nearly 60 years later concerns about the rapid decline of natural resources, used in mass-produced products, are ever more prevalent. In one part, Packard ventures that individuals may have to start scouring rubbish heaps for useful materials. This is already happening; for the 2020 Olympics, Japan has extracted the precious metals from old phones to create the winner's medals, instead of extracting metals from ores – a process that burns through fossil fuels and depletes natural resources.

Remain: Slough Media

Rebecca Schneider, 2019

⇒ Schneider's article considers materiality from a performative perspective. In a decidedly different take on the idea of obsolescence, Schneider poses that objects, like performances and actions, are repeated continuously, are passed along, and reactivated. She touches upon the importance of remembering where media originated from – namely, natural resources – and the many processes required to create a multitude of complex technologies. She postulates that the role of the hand in the making of a device is not limited to the human/non-human hand that acts to extract metals or create in factory spaces; any hand that comes in contact with the item may be considered a component of the 'making process'. I found this article particularly useful for my understanding of how a teaching collection may operate effectively. I had considered that students may feel a disconnection/dissonance with the items in the collection, as many students will not have lived in a time when these objects were a part of mainstream consumer culture. By considering the origins of the media objects – the materials required, the tools required, and the skills required to form these objects – then students will come to appreciate how these items once operated in their original contexts, and how they may function in the present.

Week 5

In the fifth week of the project, I continued to expand upon the descriptions of the acquisitions and continue the editing process for the photographs. The main focus of this week, however, was to start to enquire into and visit different teaching collections in UCL and Bloomsbury. There were some challenges that came with this, as many of the teaching collections had been closed for summer. However, the UCL ethnographic collection in the Anthropology department was still open, and the head curator, Delphine Mercier, was happy to meet with me to discuss how the collection is utilised for object-based learning.

UCL Ethnographic Collection

There are 7000 items in the ethnographic collection, with 3000 of these being photographs. The objects included in the collection vary from ceramics and ritual objects to weaponry, and around half of the collection is of African origin. The collection was established around the 50's by Darryl Forde, the first head of the Anthropology department in UCL. The current head curator of the collection, Delphine, is responsible for the collection management and care of the items. One way in which the items are cared for is through the careful handling of the objects; in order to hold the objects, one must wear protective rubber gloves and hold the item over a work surface. This ensures that the natural oils from individual's hand does not transfer to the items themselves, as this could potentially damage the objects' surfaces. I found that this differed from the handling of the objects in the *Cabinet of Obsolete Technologies*, as I had held the media items without gloves, and had indeed taken the items from their original location in Hanna's office in order to photograph them. I considered this difference, finding that the Cabinet was less concerned with the conservation of the items, or preserving them in their original states; instead, the teaching collection encourages a more **haptic** skin-to-object approach to the items, and even the dismantling of these objects, under supervision. In this way, there is less emphasis on an 'archival ritual' with the items in the Cabinet. However, both the ethnographic collection and the teaching collection have a performative aspect to them, as one must handle and observe the items under supervision and a set of conditions, to ensure that the objects are not damaged.

Haptic interaction with teaching objects

⇒ Object-based learning often encourages a **haptic** approach to gaining knowledge. Haptic interactions allow us to perceive objects in a markedly different way than through descriptive, auditory or visual information. As touch is the earliest sense that we develop, we may readily learn through the handling of an object; through touch, we may learn which part of an object is made of metal, glass, or wood, for instance. Through the handling and manipulation of objects, we may come to understand why certain materials were used – what properties they have (if they are malleable or sturdy, fragile or resilient) and why these properties are required for an object to function in a certain way. Haptic interactions allow for active, not passive, learning. It initiates dialogues and conversations, which is integral for the success of the *Cabinet* as a teaching aid. If an object is foreign to an individual, then being instructed on how to hold an item (for instance, how to place your hands as if you were operating an item) can connect the individual with the item and bring about a greater sense of understanding.

Weeks 6 – 7

The last two weeks of my project, I continued my research into the different collection in and around UCL. I plan to visit these collections during the start of my second year of University. Additionally, I submitted the final, edited photographs of the new acquisitions to the cabinet, as well as the descriptions and specifications. This process is ongoing; the *Cabinet* is still in its early stages, and so I will be continuing to provide assistance in the development of the *Cabinet* website and keeping informed about the new acquisitions.

I have provided descriptions for the following items:

- Film viewer and editor
- 2x 35 mm film camera
- Model C View-Master
- 8 mm film camera
- U-Matic tape
- 2x Floppy disks
- Camera obscura lens
- Photographic plate
- 9.5 mm film
- Digital Betacam
- Betacam SP
- Stereoscope*
- Laser Disc*

** Edited from an MA student's description*

I have taken photographs of the following items:

- Videosphere
- Gevabox
- Folding Box Camera
- Stereoscope
- View-Master
- Single-8 Camera
- 9.5 mm film
- Cenei Scoper K1
- Photographic Plate
- Folding Box Camera
- Laser Disc
- U-Matic Tape
- Duplar Box Camera
- Lightbox
- Magic Lantern
- True Vue
- Polaroid Image 1200
- Polaroid SX70
- Polaroid Autofocus 600
- Polaroid Swinger
- Game Casettes
- CD

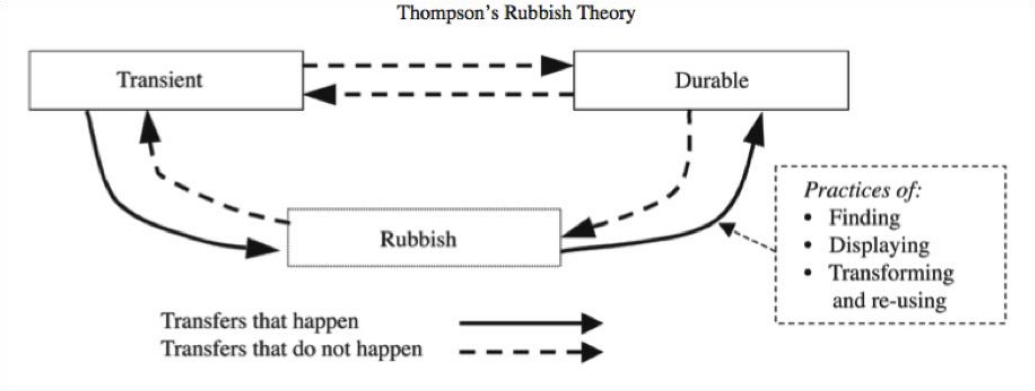
Conclusion:
The Renewal of Obsolescent Technologies

Overview of project

Over the six weeks of this project, I contributed to the development of the *Cabinet*. My photography, research and descriptions will be included on the *Cabinet* website, to support students in navigating and studying from the collection. The research I have conducted about the *Cabinet* objects have informed me of the trends for how technologies have progressed. For instance, I have found a correlation between how the success of a manufacturing company and their ability to adapt their products for today's consumers, as well as how well they are able to shift their branding and advertising towards new demographics. I have found that editing objects have largely moved away from linear editing, as non-linear editing is more efficient, flexible, and allows for any mistakes to be rectified easily. Storage space on media devices have increased exponentially, particularly with the popularisation of cloud-based storage in the 2000's. Moreover, there has been a definite move away from analogue devices towards digital ones.
Following from my research, I have considered the ways in which **obsolescence** can be defined and have identified a key function of **teaching collections**: their ability to **renew** outdated media.

Defining obsolescence

From my research, I consider obsolescence a fluid state. Media that is considered 'obsolescent' is still valuable and has the capacity to be renewed or revived as part of a cycle. When an item is revived, it is often not the same as it originally was – its purpose may have changed, it may be marketed to a new demographic, and the results that it produces may be different. Moreover, my consideration of the 'cycle' that an object is part of is informed in part by 'rubbish theory', posed by Michael Thompson in his 2017 publication of the same name.



In this theory, a transient item has a decreased value; durable items have an increased value; and rubbish items have no value. For a transient item to become durable, Thompson believes that the item must first become 'rubbish'; a devalued item that is no longer made, used or wanted. Once an item enters this state, it has the propensity to be repurposed into an item of durability. I believe that this theory is applicable to obsolescent media. Media that is no longer in production, nor commonly used, has the propensity to become durable through 'finding, displaying, transforming and re-using'; it may not function in a way that it originally was intended to, but it can still have a purpose. Moreover, the repurposing of these rubbish/obsolescent items can be considered revolutionary acts against companies' planned obsolescence; something which has negative

implications for the environment, as it has been a contributing force to the build-up of landfill and issues pertaining to global warming. Object-based teaching directly challenges the notion that obsolescent media should, and will only, serve as a waste product, as it demonstrates that redundant media is highly useful resource for teaching and research purposes.

Functions of teaching cabinets

In a museum, objects are displayed in a specific way; often grouped by place of origin and ordered according to chronology. Museum visitors can seldom touch or interact with the objects, as there is an enforced distance between viewer and object; barriers in the form of plinths, glass cases, and 'do not touch' signs. The museum objects are static, frozen in time as historical objects, with little to no capacity for reintegration into the present day.
Teaching cabinets, on the other hand, do not have the same restrictions as museum spaces. They are often stored in a smaller, more intimate spaces, and permit individuals to be in close proximity with the objects. Often, interaction with the objects is actively encouraged; students may touch, listen to, dismantle and discuss teaching items, so that they may learn from them and gain new perspectives. Due to this, teaching cabinets have the ability to **renew** obsolete media. I initially considered that teaching cabinets 'revive' media, however this term assumes that media can 'die'. Instead, renewal suggests that objects are never truly defunct, and always have the capacity to be purposeful items. *The Cabinet of Obsolete Technologies* will allow students to interact with media items that they may never have encountered before, encouraging them to consider why these items are no longer in use, as well as their modern-day alternatives. As students create spoken, written, and perhaps artistic responses to the objects, the *Cabinet* will develop as a learning resource through which we may discuss materiality, obsolescence, and the role of intermedia – both past and present.

Further points

- ⇒ I will continue to research into media archaeology and consider how it links to studies of waste and sustainability. I am interested and passionate about sustainability and believe that it is imperative that we consider solutions to the problems caused by the production of disposable commodities. Our willingness to dispose of 'old media' and soon as new products are released is a pressing issue, as is the continued use of cheap, non-biodegradable materials such as plastics.
- ⇒ I would also like to explore the secondary uses of technologies, for instance for object-based learning. I want to consider the ways in which this can be revolutionary, as it goes against the product's intended use and encourages the exploration of new, innovative functions.
- ⇒ I would like to visit some technology museums. There are not many of these found in the UK, however there are many in Germany, especially Berlin. I have been in touch with the Humboldt museum, who have provided information on their collection and the ways in which it is stored and can be accessed.

Sources:

- Huhtamo, Erkki and Jussi Parikka, 'Introduction to Media Archaeology' in *Media Archaeology: Approaches, Applications, and Implications* (London: University of California Press, 2011), pp. 1 – 24.

- Kuchenbecker, K. J., 'Haptography: Capturing and Recreating the Rich Feel of Real Surfaces', *Robotics Research*, 70 (2011), 245 – 260.
- Packard, Vance, *The Waste Makers* (New York: Van Rees Press, 1960).
- Schneider, Rebecca, 'Slough Media', in *Remain,* ed. by Ioana B. Jucan (London: University of Minnesota Press, 2018), pp. 49 – 99.
- Thompson, Michael, *Rubbish Theory* (London: Pluto Press, 2017).
- Wolf, Mark J. P., *The Routledge Companion to Media Technology and Obsolescence* (London: Routledge, 2018).