Conserving ‘Designer Intent’: a postconservation methodology towards collecting, curating and exhibiting fashion artefacts made with postmodern materials

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Copyright statement

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Glossary of terms

Archivally act: the different material stabilities of objects relating to archives.

Branded object: an object with recognisable manufacturing marks associated with a specific designer, design house and/or manufacturer, often with a label to confirm its origins.

Continual identity: a continuous cultural relationship between an artefact, current and future audiences and others that could be interactive, interchangeable and adaptable over time.

Design conservation: the conservation of designed objects that could derive from hand-making, mass-production, singular, unique a one-off design and branded objects.

Designer Intent: the experience the designer intends to create for the wearer, the cultural context and paradigm the clothing and/or accessory is designed.

Fashion interpretive practice: the fluid relationships between conservation and interpretation of fashion artefacts.

Material authenticity: refers to different and/or transient states in a material's condition during its ageing process.

Material longevity: a term sometimes used for climate and urban energy solutions, refers to the continual stability of the archived material.

Materiality dependent: being dependant, reliant on the material properties and qualities of an artefact.

Material Conservation Theory: supports new forms of fashion material engagement including aspects of 'postconservation' and 'postdegradation'

Material Engagement Theory (MET): exposition of the three main working hypotheses that make up the material-engagement approach: the extended mind, the enactive sign and material agency.

Postconservation: a development of ideas towards a Material Conservation Theory which helps extend the legacy and appreciation of postmodern materials beyond their physical state by moving from a representational conservation approach towards one that embraces performative and renewable concepts, as opposed to referring to an after treatment.

Postdegradation: a stage in conservation and curatorial practice, which supports a more active and sustainable approach in archiving the continual existence and identity of postmodern materials and fashion artefacts.

Postmodern materials: the creation of new materials by progressive production methods developed from the late 20th into the 21st centuries.

Responsive documentation system: updating object records as an open system that works with change to encourage archives to sustain relevance to current and future societal remits.

Traditional materials: textiles made from silk, wool, cotton and flax that have been manufactured for a long time in a locality, region and nation.

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Abstract

This thesis identifies 'Designer Intent' as a way of evaluating authenticity in the conservation of fashion artefacts incorporating postmodern, transient materials and technologies. The term 'Designer Intent' refers to the experience the designer intends to create for the wearer and the cultural context and paradigm the clothing and/or accessory is designed. Establishing the authenticity of a postmodern fashion artefact, from a curatorial perspective, is to represent the creative output of a designer at a given point in time, as accurately as possible. However, some materials have transient properties, affecting the quality, appearance and tactility of an artefact over short and medium timeframes compared to traditional/natural textile fibres. Artefacts may reach a point where the original aesthetic intention of the designer is no longer represented, sometimes causing 'archival isolation'. This changes the artefact's ontological and material cultural meaning limiting public access and engagement. Conserving 'Designer Intent' supports the idea of a dress object's 'continual identity', a notion that connects different archival stakeholders to sustain the cultural value of postmodern fashion. Analysis of object studies further supports a rethinking of how fashion artefacts are documented in relation to material authenticity and degradation linked to sustainable biomaterials, E-textiles/wearables and digital fashion. The research utilises a multimethod approach, synthesising qualitative findings from interviews, archival research and object studies with theoretical principles of Material Engagement Theory (MET) (Malafouris 2013) the 'in-between' space of the mind and the maker and the postphenomenological emergence and impact of technologies on humans and the environment (Ihde 1995). The proposed 'postconservation' methodology supports a more holistic approach to interpretative, fashion practice, by acknowledging the transient conceptual, material and technological aspects of postmodern fashion artefacts. The research evidences the urgent need to rethink the role of archives and dress conservation, extending it beyond a fixed point in time in support of a more sustainable 'postfashion' system. The insights gained as to the nature and manifestation of 'Designer Intent' have been encapsulated in the form of a toolkit that can be used as part of the conservation process.

Chapter 1.0 Introduction

1.1 Motivation for research

Following an early career as a fashion designer and then as a textile conservator, in 2015 the author returned to the fashion industry in a contrasting role as a fashion conservator. This transition drew upon a previous skill set of product development and recognition of trend-led ideas often influenced by high designers. As a designer, the author developed outerwear and soft separates which allowed extensive experience of working with technical materials, surface and weave design and garment technology. In a commercial sense, these experiences led to designing and integrating aspects of function, performance and aesthetics for a global customer-base which often characterised aspects of conceptualising, understanding and designing garments. The repetitive nature of product development to serve commercialisation for profit-led purposes encouraged the author to explore other avenues of understanding textiles and clothing beyond those influences of the fashion industry. In 2006 the author decided to leave her role as a fashion designer to pursue research in dress and textile history, and then textile conservation as an opportunity to reapproach and re-establish her skill set to explore and understand textiles and dress as material culture. After qualifying and gaining experience as a textile conservator and archival researcher working for museums in the UK and USA, the author re-connected with contemporary fashion design when working with the dress collection at The Philadelphia Museum of Art (February – August 2015) and then onto a research fellowship focusing on the conservation of contemporary dress archives at The Costume Institute, the Metropolitan Museum of Art (MMA), New York (September 2015 – August 2017). This presented an opportunity for the author to develop a unique relationship with conservation by combining tacit knowledge of design and conservation, linking product development experience and specialist conservation skills whilst working with modern fashion and materials. Having developed innovative ideas as an independent fashion designer then being in the position of capturing the aesthetic and cultural significance of other designers' work, led the author to consider the role of 'Designer Intent' and how this could be better understood through documentation.

Opportunities to analyse early 20th century fashion artefacts by designers, such as Elsa Schiaparelli, who employed new and emerging textiles and substrates, introduced the author to the historical impact of their modern material choices. Schiaparelli identified the benefits of forging relationships with other specialists to help extend her material palette as a route into leading innovation and encouraging escapism from conventional modes.

> I had always loved materials, and I worked more closely with the textile people than did any of my colleagues. The textile people appreciated this, and we built up a very solid co-operation. For years they did all they could for me. I was the very first person to see the new materials, and indeed this is still the case. I have launched myriads of novelties, even when the launching of them was hazardous – tree bark, cellophane, straw, and even glass.
>
> (Schiaparelli 1954: 61)

Schiaparelli's intention to utilise new materials to develop her designs was evident whilst conserving and examining her pieces at The Costume institute. In fashion archival practice, the focus is primarily on the physical and cultural attributes of an artefact, with the creativity (and creative thinking) of designers, a seemingly unacknowledged aspect in dress conservation, and design conservation in general (de Sá et al. 2014: 193-203). This knowledge gap informed a dress conservation research proposal[1] entitled 'Designer Intent Verses Natural Ageing Phenomena: Interpretation, Preservation and the Value of Modern and Contemporary Dress Collections.' The associated funding award enabled an exploration of modern materials in contemporary fashion collections, the implications in conserving modern material choices by the designer and their teams and to re-appreciate the role of the designer and a fashion artefact as cultural heritage. The research affirmed that the conservation of contemporary dress is becoming an archival priority for museum collections, as recently recognised by The Scientist Magazine who interviewed the author on the urgency of conserving plastic materials found in fashion artefacts (Kean 2021).

The terms 'modern and contemporary fashion' are used interchangeably throughout this thesis. In the context of this research, 'modern fashion' refers to the broader context in the usage of modern materials in fashion artefacts (see Section 2.3). Supported by artefact examinations as material evidence (see Sections 2.3.1 and 2.4), this thesis loosely refers to the 1920s onwards when referring to 'modern fashion'. Furthermore, the term 'contemporary fashion' adapts the definition of the term 'contemporary art' (Tate 2022) to compensate for the lack of definitions of this term in an historical context. In this research contemporary fashion refers to fashion artefacts made in the present day and is part of the recent past (i. e. the past 10 years on a rolling basis) that includes the use of postmodern materials (see Sections 1.3 and 2.6).

1.1.1 Conserving and exhibiting modern fashion

As part of the research fellowship at MMA, the author undertook a collections survey[2] which helped develop perspectives on the historical use of modern materials in fashion and accessory

[1] The author completed a Polaire Weissman Fund Fellowship, in the conservation of dress, The Costume Institute, The Metropolitan Museum of Art, September 2015 - August 2017.

[2] The survey was undertaken between January 2016 – August 2017 using The Museum System (TMS), a collection management system, which identified over 4000 fashion artefacts made with 'synthetic materials'. 75 objects were short listed for inclusion in the survey and analysis.

artefacts. Empirical evidence through examining the artefacts enabled insight into how designers exploited the evolution of modern materials during the 20th century and their desire to continually engage with the variable properties these substrates had to offer. During the collections survey the author co-curated an exhibition *The Secret Life of Textiles: Synthetic Materials* (March–September 2017) which showcased synthetic textiles and materials in modern and contemporary fashion (The Metropolitan Museum of Art. 2017). This work supported the research the author conducted into plastics in the fashion collection at the Costume Institute.

Figure. 1 *The Secret Life of Textiles: Synthetic Materials* exhibition, The Metropolitan Museum of Art, March 6th-September 25th, 2017. From left to right: Raf Simons, House of Dior, dress (2014.222a-c) A/W 2013-14, polyamide, polyurethane elastomer (ester), wool. Rudi Gernreich, dress (1986.517.17a, b), 1967-68, polyester. Elsa Schiaparelli, House of Schiaparelli, suit (1974.338.5a, b), winter 1938, rayon crêpe.
Image: ©Leanne Tonkin. 2017.

Figure 1 shows three ensembles curated to convey the history and progression of synthetic materials used to create high fashion in the 20th and 21st centuries. The chronological flow of the ensembles date from Elsa Schiaparelli (right) using rayon crêpe, a regenerated cellulose fibre, in the late 1930s illustrating Schiaparelli's preference for synthetic materials over natural ones. The buttons are made from cellulose nitrate (CN) and, like the whole ensemble, remain in good condition. In the centre is a polyester dress by Rudi Gernreich from the late 1960s, showing an

example of easy-to-wear modern fashion with a geometric print and corresponding shaped mini dress. The use of polyester became popular with designers because it was easily dyeable using synthetic dyes to achieve brighter colours (McIntyre 2005: 95) offering easy maintenance showing that regular wear did not mean drab design. In 2014, Raf Simons (left), combined the use of polyamide, polyurethane elastomer (ester)[3] and wool to create a double-knit dress whilst working for Christian Dior. The piece exemplifies a progression in fabrication approaches, a new material palette and differing technical processes which designers now have access to. These three ensembles exemplify changes in the design and fabrication of fashion across an 80-year period. Material developments in fashion have advanced exponentially over the last 20 years with the advent of additive manufacturing, E-textiles (electronic textiles) and bio-based materials (see Section 2.6). This study considers how the speed of these advances is impacting design and how it necessitates complementary changes in archiving practice.

1.2 Developing the concept of 'Designer Intent'

In the context of this research, the term 'Designer Intent', refers to the experience the designer intends to create for the wearer and the cultural context and paradigm the clothing and/or accessory is designed. The main aim of this research (see Section 1.4) is to examine methods for 'Designer Intent' as a contributing factor to conserving and archiving contemporary fashion made from postmodern materials. Edwina Ehrman (2018), curator of the Victoria and Albert Museum's (V&A) exhibition *Fashioned from Nature* (2018-19) states: 'The direction of change [in the fashion industry] is dependent on intent' (Ibid: 173) which refers to intent as being a collective responsibility in mediating fashion design with the environment and climate change. This idea connects to the definition of 'Designer Intent' which takes into consideration the wider aspects of other stakeholders as important factors to consider when conserving postmodern fashion artefacts.

Conserving the intentions of designers responsible for the ideas and concepts of new materials may help diversify conservation, curatorial practice and widen public understanding of this aspect of material cultural heritage. 'Designer Intent' will become an important cultural asset that helps relate the fuller story of fashions that are at a conservation risk due to their material composition. Material selection by designers can extend beyond the composition and relate to time and change, as demonstrated by Martin Margiela with his collections from A/W 2005 (Verhelst and Debo 2008: 9). Margiela intentionally extends previous stories of materials by recycling garments to create new designs, and therefore, effectively creating new material relationships and aesthetic experiences (see Sections 5.2.3/4, 5.3.3/4 and 5.4.3/4) from the previous lives of the

[3] Polyurethane polymers are the products of a reaction between polyisocyanates and either polyether or polyester. Shashoua, Y. 2008. *Conservation of Plastics: Materials Science, Degradation and Preservation.*

garments. Kaat Debo (2008: 9), director of the ModeMuseum (MoMu) Antwerp and co-curator of the exhibition Maison Martin Margiela: "20" The Exhibition (2008-09) acknowledges '…materials do not hide the course of time…' which highlights the existing and anticipated change in some fabrics selected by designers and how such changes are integral to the design, thus cannot be ignored. Fashion interpretive practice[4], a term used in the context of this study, refers to the fluid relationships between the conservation and interpretation of fashion artefacts, which may include recognising which tangible and intangible element(s) of the fashion artefact should be documented and conserved and what archival methods could be applied to record this information. This approach will help to assemble and disperse decision-making amongst collection care stakeholders and others of postmodern fashion heritage.

Modern and contemporary art conservation has been using the artists intent since around 1990 (ADP 1990) as 'a primary source that addresses issues, such as materials and techniques used, working processes, meaning of the artwork, the artist's view on aging and deterioration, conservation and presentation' (INCCA 2002, 2016: 1) Similar to capturing artist intent (see Sections 2.9.1), especially those who work with modern materials (Jadzinska 2016: 189-205), analysing the meaning and values of a designer is useful to determine elements that are specific or important to a given fashion artefact. Documenting these elements could continue to inform current and future fashion cultural stakeholders, once the materiality of the object no longer exists, where 'material longevity', the continual stability of the material, may not be intended.

1.3 Towards conceptualising 'postmodern materials'

Within the context of conservation and cultural heritage, the proposed term 'postmodern materials' is introduced here in the context of this study. At the time of this research and its literature review, this study revealed no other related references to this term. Therefore, the term has emerged from the scope of this research and refers to the evolution of new materials by progressive textile design and production methods developed from the late 20th to the 21st centuries. Object studies used in this research, for example the Kaleidoscope Perfectos dress by Kunihiko Morinaga, ANREALAGE, c. 2016 (see Section 5.3), a Wild Rubber Dress by Vivienne Westwood and Andreas Kronthaler, c. 2013 (see Section 7.2) and a cycling jacket incorporating LEDs developed by researchers at Nottingham Trent University, c. 2019 (see Section 8.4.2), introduce and exemplify progressive designs and production methods. These methods may be influenced by advances in material engineering, digital technology and environmentally focused design that aligns with ecological concerns in a postmodern culture. For example, the bio-based

[4] The term originally emerged from discussion and feedback with the Director of Studies of this Doctorate, Dr. Katherine Townsend, Professor in Fashion and Textile Craft in the Fashion, Textiles and Knitwear department of the School of Art and Design, Nottingham Trent University. 21 June 2020.

object studies discussed in Chapters 6 and 7 could be considered as being part of a 'post-postmodern culture' (Morgado 2014: 317) because the natural resources the materials are derived from support a healthy ecosystem. 'Modern materials' remains the current term in conservation to describe materials made from non-traditional fibres and production methods that began to emerge during the early 20th century (Shashoua 2008; Getty Conservation Institute 2017; Icon 2019; ICOM-CC 2022) (see Section 2.3). This research proposes an additional term of criteria, 'postmodern materials' which includes advances in technology beginning in the late 20th century and developing environmental agendas.

New materials are important because designers constantly search and develop unique finishes, surface effects and draping qualities to materialise conceptual ideas (Braddock Clarke and Harris 2012; Bolton 2017; Ehrman 2018; Townsend et al. 2020). Digital technologies provide the means to transmit knowledge, express ideas and synthesize information. Human-computer interaction (HCI) has been embraced in fashion research for the last decade and E-textiles research is on the cusp of transforming the fashioned body with advances in wearable technology (Berzowska 2005: 58-75; Kettley 2016; Pailes-Friedman 2016; Quinn 2014: 436-455). High fashion designers such as, Alexander McQueen with his Cyborgs collection for Givenchy, Autumn–Winter (A/W) 1999, and Hussien Chalayan with his One Hundred and Eleven collection, Spring-Summer (S/S) 2007 (see Section 8.2.1) have explored digital media as part of their (im)material palette since the early 2000's. Different theoretical and philosophical perspectives are informing interdisciplinary creative practice, merging historical and advanced approaches to fashion and textile design (Townsend et al. 2020: 89). Wearable technologies are radicalising the relationships between the body and dress as technology continues to play an important role for 'technically enhanced clothing' (Quinn 2014: 446). In addition, 'the growth and democratisation of physical computing and digital fabrication' (Winters 2020: 216) is helping to reimagine materials like e-textiles in fashion.

A shift in material paradigms is becoming prevalent with designers and researchers who recognise opportunities to explore the hidden structures (and languages) when materialising concepts. Kate Fletcher and Mathilda Tham (2015a: 1-11) in their introduction to the publication *Routledge Handbook of Sustainability and Fashion* explain the urgency for fashion to engage with environmental, social and economic complexities to increase an understanding of 'fashion relationships' (Ibid: 6) to then encourage sustainable production models. In doing so it will acknowledge a diverse range of stakeholders with the potential to support a postgrowth society (Ibid). Looking towards the human body as a catalyst in exploring different material palettes, Katherine Townsend, Rhian Solomon and Amanda Briggs-Goode introduce their publication *Crafting Anatomies: Archives, Dialogues, Fabrications* (2020: 1-25) with ideas of 'transdisciplinary'

approaches in developing different forms of 'material intelligence' (Ibid: 3). This approach recognises elements of biotechnologies and 'physical and digital materials constructs' (Ibid 6, 9) as responses to discovering other types of material relationships (see Chapter 5).

Biomaterials are developing in response to the need to mitigate climate change as examined by Alice Payne in her publication *Designing Fashion's Future* (2021). She identifies 'material cyclability' (Ibid: 114), as a way to include and appreciate the values of designing for 'disassembly' (Ibid: 116), making biodegradable materials contributory elements to a safe and supportive circular economy. Fashion is embracing a new hybrid practice of biological regenerative approaches (Congdon et al. 2020: 145) where material-led research is underpinning new knowledge in constructing textile substrates and systems. New fashion practices are casting synchronised futures with sustainable goals to help build a different and broader landscape of fashion well-being (Tham 2016: 291). These approaches introduce different types of materials, materiality and immateriality when considering the conservation of postmodern materials. This study shows that conserving 'Designer Intent' in relation to the current and future roles of viewers, wearers and other stakeholders (users) of postmodern materials can be transient, intentionally ephemeral and interactive in nature. The materiality and immateriality of postmodern materials can be correlative and not representational as a static artefact, as evidenced in Chapters 6 and 7 when discussing the conservation of the changeable aspects of (un)intentional degradation and Chapter 8 which looks at conserving the interaction of E-textiles and digital fashion.

1.3.1 Conserving postmodern materials

Ontologically, conservators and curators depend on technical analysis and the physical aspects (Henderson 2020: 197) of contemporary fashion artefacts to conduct their work. This dependency can increase the risk of losing postmodern fashion heritage and narrowing perspectives of conservation and interpretation because of the unfamiliarity of postmodern materials these artefacts are made from. The conservation of contemporary fashion in museums is considered as a physical asset to fashion heritage which potentially hinders the understanding of other aspects of fashion material and immaterial culture. For example, the museum users engaging with E-textiles and digital fashion artefacts that encompass a multiplex of material engagement using coding, Bluetooth technology and solar panel energy (see Chapter 8). This type of material engagement is not a fixed interpretation but embedded in the material process itself (see Sections 8.1 and 8.2). In this sense, postmodern materials embody many different aspects of production methods, environmental networks and technologies that include 'diverse forms of collaboration, social interaction' (Healy 2013: 326) and multi(trans)disciplinary practices (Townsend et al. 2020: 1-25). Consequently the immateriality of postmodern fashion can have

various, temporal and ongoing parameters of material expression and engagement (Malafouris 2013: 117). Through object studies in this research (see Chapters 5, 7 and 8) the author shows evidence that postmodern materials can be products of design communities that are not representational of a particular point in time, but are part of a fluid, integrated and complex environment that encourages a more proactive approach to conservation and fashion interpretive practice.

Postmodern materials will continue to develop, for example, sustainable-led materials, their properties may well become detrimental towards current policies of fashion archives in museums. Postmodern materials in relation to fashion artefacts entering the museums are being processed differently by the curator and the conservator meaning, due to hierarchal systems (see Section 2.2) whereby priorities can vary when considering the conservation and interpretation of the artefact. Current textile conservation and curatorial practice recognises the power of fashion exhibitions because of the popularity of these types of exhibitions, the preparation involved and high investment they bring to museums (Flecker 2007: xiii; Kite 2010: 34; Cullen 2019). Moving away from the retrospective practice of textile conservation may help develop a synchronised cultural fashion perspective between conserving and interpreting contemporary fashion artefacts. Therefore, it is important to understand the common ground between conservators, curators and designers to identify creative dialogues that help increase the resonance of fashion artefacts made from postmodern materials.

1.4 Research question and aims and objectives

The main research question of this study examines the meanings and values of a designer's methodology and approach to determine elements that are crucial to the creative design and its interpretation through the conservation process by questioning:

How can 'Designer Intent' be understood, captured and conserved alongside an archived fashion artefact?

When archiving the less tangible, immaterial aspects of postmodern materials and fashion (see Section 1.3) it is important to ask further, subsidiary questions:

- What kind of information is required to conserve 'Designer Intent' once the original materiality of the object no longer exists, whereby 'material longevity' is not intended?
- What kind of information is required to conserve 'Designer Intent' when the original material condition of a fashion artefact has changed?
- How do conservators and curators of postmodern materials and fashion embrace a heterogeneity of designers who use diverse, intertwining design systems and paradigms?

- How do conservators and curators of postmodern materials and fashion embrace heterogenous design approaches and outcomes?

Research aims

RA 1: To research the concept of 'Designer Intent' as a methodology that supports the conservation of postmodern materials and fashion artefacts.

RA 2: Develop a rationale for conserving 'Designer Intent' as part of a museum archival protocol to support postmodern fashion artefacts beyond their physical existence.

RA 3: Develop a toolkit to record 'Designer Intent' when collecting, conserving and exhibiting postmodern fashion artefacts.

Research objectives

RO 1: Survey professional collection care staff of contemporary fashion artefacts and conceptual designers to gain perspectives on their experiences with new materials.

RO 2: Undertake object studies of postmodern and postgrowth fashion artefacts as material and archival evidence to support key findings.

RO 3: Gain insights from other professionals to assess the effectiveness of 'Designer Intent' being encapsulated in the form of a toolkit as part of the conservation and curation.

A subsidiary aim is to link fashion artefacts to other design objects from material culture supporting the term of 'design conservation' (de Sá et al. 2014: 194) as an appropriate category to position contemporary fashion conservation, being somewhat different to art conservation. Acknowledging design artefacts as a category, like fashion, as prototypes, being part of a series, collection of others and the involvement of different design stakeholders, could be considered aspects of design conservation. Section 2.9 follows an analogical approach by using art conservation as a way of understanding design conservation.

1.5 Brief introduction to research methods and methodologies

A multimethod approach focusing on qualitative research methods have been used for this work (see Section 3.2.1). These were designed to holistically investigate the central question of the thesis. Firstly, an extensive literature and archival research (see Chapter 3 and Section 3.4.3) was undertaken which explores the combination of design and conservation published works combined with empirical investigations of artefacts (see Chapters 3, and 4 to 8). Thematic analysis

of qualitative research of semi-structured interviews were undertaken with conceptual fashion designers, fashion curators and conservators in the field of fashion collection care and modern materials (see Chapter 3). The researcher sourced conservation and curatorial participants from the UK and Europe because collections are similarly recognised through publicly funded bodies, for example, by professional museum bodies and city councils. This means following a stringent acquisition and disposal process when acquiring artefacts (Museums Association 2004; V&A 2019: 4-10). This contrasts with the USA, where collections are mostly privately funded allowing more scope to acquire and dispose of artefacts (The Metropolitan Museum of Art 2021a and b).

Analysis of these narratives were the primary data used to which helped explore the interrelationships of the aforementioned within the conservation, interpretation and display of contemporary fashion made using postmodern materials. The four fashion designers represent traditional haute couture, sustainable and conceptual practice and helped to contribute to the data thus adding to the perspectives of fashion conservators and curators to help analyse what is meant by 'Designer Intent' and what is achieved by documenting it. This helped gain an understanding of what should be the correct process, ending with a recommendation to the sector into conserving postmodern materials and those to come.

Interviews were audio recorded, transcribed and analysed using NVivo, a qualitative (and quantitative) data analysis tool for text-based media. This analytical tool helped to organise and formulate initial coded themes and cross-reference areas of discussion that are similar and contrasting. A corresponding series of object studies were selected and examined to further support considerations of several emergent themes that arose from using the Constructivist Grounded Theory (Charmaz 2014: 239-241) to analyse the interviews (see Chapter 3). The Constructivist Grounded Theory helps understand meso-level structures between the interviews and to understand the epistemological underpinnings between the conservators, curators and designers. The thematic outcomes from this analysis, supported by object analysis, created diverse discussions by introducing new philosophical frameworks to conservation practice and theory. A mixed epistemological-based approach using the Material Engagement Theory (MET) (Malafouris 2013) and postphenomenology (Ihde 1995) helped link new thematic outcomes in understanding the values of conserving 'Designer Intent' in the archiving of postmodern materials and fashion.

To summarise the research methods and methodologies used for this study included semi-structured questions with professional interviews with fashion collection care professionals and with a diverse selection of contemporary designers, archival research and object analysis. Utilising The Constructivist Grounded Theory to examine interviews and establish the main thematic areas

and the Material Engagement Theory (MET) and postphenomenology to further test 'Designer Intent' as a new conservation methodology.

1.5.1 Challenges to the research

Examination of some of the object studies (see Chapter 5, 7 and 8) for this research were completed through virtual platforms and remote sharing of professional conservation documentation. This approach was undertaken by the author, a trained textile conservator, because of travel and museum archival restrictions due to COVID19 preventing in-person conservation examination. Physical examination of fashion artefacts is routine practice, as well as photographic documentation, to complete a full object report of an artefact, which records object details, for example, elements indicating provenance, dimensions, materials, construction, condition and any other aspects, including signs of wear and tear. The author conducted conservation examinations with fellow collection care professionals using Microsoft Teams and Google Duo to counteract the constraints of pandemic restrictions on archival access and public travel (see Section 5.1.3). Video calls helped connect the researcher to archives and specialist collection care staff to allow close examination and discussion of specific aspects of selected artefacts. A short list of pre-set, semi-structured questions were employed (see Appendix 1) whilst engaging with fellow collection care specialists who were handling and reporting details about the artefact on the researcher's behalf. Photography was also undertaken at the request of the researcher to generate a record of the observations made during the meetings. These would include a full view of the front and back of the artefact and areas of interest, for example, details of degradation and components.

Extensive invites, e-mails and requests with professional contacts were undertaken to invite fashion designers to interview for this research. The limited response meant the author used recorded depositories of interviews, films and documentaries to help create data, as well as information generously shared by professional colleagues.

1.6 Development and structure of thesis

This section introduces the contents of each chapter in chronological order to enable the reader to understand the various aspects of the research and how one stage of work relates and leads to another. The first three chapters of the thesis provide contextual and methodological overviews of the research, how and why it was undertaken and results from data analysis. The following five chapters are led by the main thematic outcomes that emerged from the analysis and combine fieldwork, discussion and object studies. The last two chapters (re)introduce main discussions, conclusions and contributions to new knowledge of the thesis, as well as recommendations for future work.

The development and structure of the thesis follows a hybrid practical and theoretical approach which supports the contribution to new knowledge. This approach enables a continual process of originality to exist throughout the work as an aid in understanding the complexities and unrecognised dynamics of conserving Designer Intent within the discipline of fashion conservation as part of fashion interpretive practice.

1.6.1 Outline of chapters

Chapter 1, Introduction, introduces the motivation for research which extends from the authors conservation and archival work in contemporary fashion heritage at The Costume Institute, The Metropolitan Museum of Art, New York. The concept of 'Designer Intent' is introduced as a core notion to the thesis and explains the benefits of analysing it, with reference to the artist intent as a tried and tested concept in the conservation of contemporary artworks. The term 'postmodern materials', an emergent concept from this work, is explained to describe new materials and technologies as used and desired by designers. This leads to initial considerations about conserving postmodern materials and the differences they pose to conservation and curatorial practice, linking to the main research question, the aims and objectives of this study in exploring 'Designer Intent' as a conservation method in documenting postmodern materials and fashion artefacts. Research methods, and adaptations to these methods during COVID19, are briefly explained, as is the structure of thesis to provide the reader with an insight of the flow and interconnection between chapters. Contributions to new knowledge is revised as reiterated in the conclusion of this thesis.

Chapter 2, Literature review, aims to develop an understanding of the concept of 'Designer Intent' and how this is relevant to conserving postmodern fashion by critically reviewing key literature, often underpinned with fashion artefacts to reiterate practice-led work. An illustrated guide of the roles of collection care professionals responsible for recording the journey of an artefact into an archive is provided, in addition, showing the position of the researcher. Timelines of the evolution of modern and postmodern materials are provided alongside definitions of their characteristics. Object studies are used to evidence these types of material trajectories in museums. For example, a degrading belt by Elsa Schiaparelli c. 1936-7 (see Section 2.3.1), showing the impact of archiving modern material artefacts in dress archives. The terms 'postmodern fashion' (see Section 2.5), postmodern materials' (see Section 2.6) and 'material agency' (see Section 2.10) are reviewed in relation to the gap on knowledge filled by this work. Main areas of research, 'Designer Intent', postmodern materials and fashion artefacts (see Section 2.8) are critically reviewed as key areas that correlate with the gaps in knowledge in 'Designer Intent' and design conservation and acknowledging this as a professional field. The Material Engagement Theory (Malafouris 2013) and postphenomenology (Ihde 1995) are

reviewed to survey a Material Conservation Theory (MCT) in supporting the documentation of 'Designer Intent'.

Chapter 3, Research methodologies, explains the main research methods and methodologies employed with explanations of the qualitative multimethod approach and mixed epistemological-based methodology undertaken to examine the main hypothesis of this study. Professional interviews included: **textile, design and scientific conservators:** Kim Verkens, ModeMuseum (MoMu), Belgium; Netta Krumperman, Stedelijk Museum, Amsterdam; Dr. Susana França de Sá, Universidade NOVA de Lisboa, Portugal; Sarah Glenn ACR (Accredited Conservation-Restorer), independent practitioner (formerly V&A), London; and Roisin Morris ACR, V&A, London. **Fashion curators:** Alexandre Samson, Palais Galleria, Paris; Edwina Ehrman, independent dress historian (formerly V&A); Kaat Debo, ModeMuseum (MoMu), Belgium; Oriole Cullen, V&A; and Elisabeth Murray, V&A. **Fashion and accessory designers:** Stephen Jones OBE, leading British milliner, London; Dr. Naomi Bailey-Cooper, British Fashion Council; Jo Cope, conceptual fashion designer, East Midlands; and Vin + Omi, ECO design brand, London. The Constructivist Grounded Theory is introduced followed by the stages as recommended by this framework. The three coding stages of the interviews are discussed (initial and stages 1 and 2 of focus coding) and outcomes illustrated using animated tables (see Sections 3.5.4 and 3.5.5). Conceptual themes emerging from the transcribed interviews are discussed and how this supports the hypothesis, methodology and toolkit. Two main themes of 'authenticity' and '(un)intended degradation' are discussed with the underlying theme of 'rethinking longevity' which directs the selection of object studies (see Section 3.5.6). The object studies are presented as ways to test the main themes through the perspective of 'Designer Intent'. The mixed methodological approaches of the Material Engagement Theory (MET) (Malafouris 2013) and postphenomenology (Ihde 1995) are illustrated as tools in examining the main themes in developing new insights into 'Designer Intent' as a methodology for the care of postmodern materials and fashion artefacts (see Section 3.7).

Chapter 4, Conserving the moment: authenticity in postmodern fashion, explores the first core theme of 'authenticity'. Assessing connections between 'Designer Intent' and authenticity help develop discussions on the impact of 'materiality dependent' values in dress archives. Examples of quickening degradation of a moulded polyurethane foam dress by Hussein Chalayan, RTW, S/S 2009, are included to aid discussion on encountering temporalities in conserving and interpreting postmodern fashion artefacts. Considering the position of authenticity in postmodern fashion directs analysis towards collecting the moments that mark fashion histories. For example, the role of the catwalk shows and recognising the strongest times of a designer's creative trajectory. Documenting authenticity is explored by looking at temporal characteristics of postmodern materials and how this calls for (re)balancing perspectives on dress archives. This leads to

identifying authentic states of postmodern materials that (re)develop ideas about aesthetics as often perceived in fashion history. Conclusions point towards a suggested 'postconservation' methodology to conserve 'Designer Intent' that contributes to a new Material Conservation Theory (MCT) that considers temporal aspects of postmodern materials.

Chapter 5, Object studies in conserving authenticity, turns discussion to conserving authenticity as an aspect of 'Designer Intent' using a practice-led approach of object study as material evidence. Three object studies are analysed to highlight different perceptions of engaging with and recording authenticity. The artefacts include the Duvet Coat by Maison Martin Margiela A/W 1999-2000; a Kaleidoscopic Perfectos Dress by Kunihiko Morinaga for ANREALAGE, S/S 2016; and a Plain PU Cover and Woollen Tweed Coat by Raf Simons for Calvin Klein, A/W 2017. Each object study is introduced with brief object records and then explored from the perspectives of 'material authenticity', 'material relationships' and 'aesthetic experiences'. These aspects examine different ways in understanding the authenticities of postmodern fashion and their material trajectories.

Chapter 6, Conserving (un)intended degradation in postmodern fashion, discusses the second main theme of '(un)intended degradation' as an emerging outcome from data analysis. Aspects of (im)permanence in postmodern materials and conserving degradation as integral aspects of postmodern fashion heritage are examined. Examples like the V&A's retrospective exhibition of Yohji Yamamoto (2011) are used to explore institutional approaches and liaisons surrounding degradation, to aid analysis of conserving and interpreting loss and change in fashion heritage. Pre-empting loss in conserving postmodern fashion, like biodegradables, is examined as an aspect of uncertainty in archival practice. Documenting 'Designer Intent' in supporting temporary archives as ways to widen postmodern fashion history as part of a postfashion system is analysed. Conclusions include recommendations of utilising a postconservation approach to support renewable ideas about the conservation of (un)intended degradation in fashion.

Chapter 7, Object studies in conserving (un)intended degradation, uses three object studies to evidence ideas of degradability as being an integral element of Designer Intent. The artefacts include a Wild Rubber Dress by Vivienne Westwood and Andreas Kronthaler collected as a Non-Collection Object (NCOL) by the V&A c.2013; the 'ECCO'-Leather Dress by Iris van Herpen, S/S 2010; and the Rootbound #2 Dress by Diana Scherer in 2017. Each object study is introduced with brief object records and then examined using criteria from the three perspectives of 'conserving', 'archiving' and 'historical context' of (un)intended degradation to assess the diversity of bio and eco-based fashion artefacts.

Chapter 8, Conserving electronic textiles and digital fashion, is presented separately because of the different considerations when conserving technology in an artefact. Thus, provides different ways to examine the core themes of 'authenticity' and '(un)intended degradation' in considering 'Designer Intent' and new material trajectories of electronic textiles (E-textiles) and digital fashion. This chapter combines discussion with object studies to aid analysis of the themes in an area of fashion heritage that is largely unexplored. Authenticity of E-textiles and digital fashion initiates discussion on elements of communication, authenticities in digital fashion and archiving. Conserving authenticity of digital fashion is explored through an object study looking at the Solar Powered Trent Coat by Junya Watanabe, A/W 2016-7. 'Permanent impermanence' of E-textiles and digital fashion is discussed which equates (un)intentional degradation in acknowledging transient digital characteristics of fashion artefacts. Encouraging contextual practice is explored when considering the conservation of E-textile prototypes by studying a cycling jacket, a prototypical demonstrator developed at Nottingham Trent University, c. 2018. This links in to conserving 'permanent impermanence' using an object study of the 3D printed suit by House of CHANEL, Karl Lagerfeld, A/W 2015-6 which leads towards a consideration of a 'postdegradation' era in conserving digital fashion. Conclusions encourage conservation practice in reassessing archival protocols that encourage elements of renewability and less on the representational in conserving the transient nature of E-textiles and digital fashion.

Chapter 9, Further discussion and toolkit, places emphasis on the key discussion points derived from the thesis and presents the toolkit as methodology to record 'Designer Intent'. This chapter succinctly links discussion on 'Designer Intent' as a postconservation methodology (which supports the toolkit) through key literature, object studies and methodological approaches that underpin this study. Relational ontology in studying fashion objects is reviewed as a common theme during this research in contextualising 'Designer Intent' and the toolkit. 'Continual identity' and 'postdegradation', as models, are discussed to serve as a reminder of the benefits of conserving post(growth) modern fashion artefacts for a wider audience, beyond the museum and the artefact. Surveying 'Designer Intent' toolkit is introduced including its structure, summary of main areas and definitions of the themes. Questions directed by the main themes include: 'Authenticity', 'Role of degradation' and 'Design context'. The final layout of the toolkit is presented with explanations of terms followed by feedback from professionals in the field with a summary of the potential benefits of utilising the toolkit. A summary of using the toolkit shows that conservators and curators could conserve and interpret postmodern (and postgrowth) fashion artefacts that are intrinsically ephemeral.

Chapter 10, Conclusions, begins with the general conclusions which reviews key literature to compare some of the approaches undertaken by specialists in the field of conservation and

design, and theorists, and how these approaches support and challenge those of the author by completing gaps in knowledge. A summary of the findings is provided of the main key points: 'Designer Intent' and authenticity; 'postconservation' documentation; and 'postdegradation' of postmodern fashion. Recommendations for further work are presented which include developing workshops for non-specialists to be included in extending the understanding of 'Designer Intent'. The chapter finishes with contributions to new knowledge and research dissemination and publications of this work (see Appendices 7 and 8).

1.7 Contributions to new knowledge

The thesis has raised five original contributions to knowledge,

- This research provides new insights into the importance of 'Designer Intent' and material authenticity, these are integral elements when conserving postmodern materials and fashion artefacts. Conserving these elements will distribute and diversify the cultural significance of postmodern and postgrowth fashion artefacts.

- Introduction of a 'postconservation' approach that will include and support the conservation of post(growth)modern fashion that are intended to or will degrade. This approach will include a 'continual identity' model, as part of a suggested Material Conservation Theory (MCT) widening fashion engagement with fashion archives and exhibitions.

- The 'postdegradation' of 'postmodern materials' and fashion artefacts will acknowledge the conservation of (un)intended degradation, E-textiles and digital fashion, including prototypical design. This documentation will include digital archives to support the archiving and transition of hardware, software and data associated with fashion artefacts. By describing this alternative approach, a framework is provided that can form the basis for further research.

- Introduction of a toolkit as a co-document will record 'Designer Intent', role of degradation and design context as a part of a 'responsive documentation system' to conserve 'postmodern materials' and fashion artefact stories. This co-documentation will provide agency to postmodern fashion artefacts and their transient conditions to its end-of-life.

- An introduction of a Material Engagement Theory and postphenomenlogical based epistemology in the study and conservation of fashion objects.

1.8 Summary of key points

Bullet points are used to summarise most chapters in the thesis for reiteration, clarity and user friendlessness for industry professionals.

- Postmodern materials are showing different characteristics from what is traditionally known as modern materials in cultural heritage.
- Diverse designers and design communities are rethinking design systems and paradigms bringing different challenges to fashion conservation.
- Thematic analysis using a constructivist grounded theory helps gain an insight into the challenges of conserving postmodern materials and fashion artefacts.
- Advances in technology and protecting the environment may influence conservation decision-making of postmodern materials and fashion.
- 'Designer Intent', authenticity and (un)intended degradation could be considered aspects of a postconservation approach, rethinking longevity in dress archives.

Chapter 2.0 Literature review

2.1 Introduction

The primary aim of this review is to examine current perceptions on 'Designer Intent' and how this concept has been considered in literature. Thus, addressing a gap in knowledge in which this research can fill when considering 'Designer Intent' as a tool in the conservation of postmodern fashion artefacts in museums. Modern fashion, comprising garments and accessories, can often degrade quickly because of a lack of understanding of the properties of new materials and technologies used by designers. The author is an experienced textile and fashion conservator, specialising in the conservation of contemporary fashion with a 10-year previous career as a fashion designer. With this combined practical experience, the researcher has first-hand knowledge of the importance designers place on investigating, selecting and designing with new materials. In addition, the challenges of conserving, often justifying the inclusion, of postmodern fashion history to ensure this era of design is shared within the public domain. Understanding this position of the researcher helps the reader gain insight into the responsibilities of fashion archive stakeholders when acquiring fashion for a museum context.

A timeline of modern materials which is illustrated using object studies designed by Elsa Schiaparelli, Salvatore Ferragamo and André Courrèges to demonstrate the use and consequences of this media in fashion artefacts. This review includes combined critical examination of publications, by experienced practitioners in textile and fashion conservation and in design and design research, by including their different perspectives gained through published sources. This is to gain an insight into the subject and the effectiveness and current approaches undertaken to conserve, interpret and design (post)modern materials in fashion artefacts. The era of postmodern fashion and postmodern materials are described which explains the different approaches to design and material engagement of postmodern designers. Examples and timelines show modern materials in fashion artefacts introduce a notion of a 'material turn' (Mukerji 2015: 7) to fashion archives, a notion that challenges some professionals in the field of fashion heritage, who often are primarily concerned with the material agency of the physical artefact. This leads to the challenge of identifying and working with the modern materials required for fashion interpretive practice, including that of E-textiles with transformative characteristics as advanced materials entering archives, and the authors recognition and definition of postmodern materials as a second 'material turn'.

The concept of 'Designer Intent' in relation to the characteristics of postmodern materials is explained supporting discussion on the recognition of 'design conservation'. Literature in modern art conservation and artist intent is reviewed as a comparative conservation practice due to the

small representation of literature in modern fashion conservation. The second aim of this review is to scope the area of material agency and in recognising the need for a Material Conservation Theory (MCT) through reviewing the Material Engagement Theory (Malafouris 2013) and postphenomenology (Ihde 1995) to help better understand the unexplored area of 'Designer Intent' in relation to postmodern fashion. The MCT is a new term for a concept the author has devised due to the deficit in the conservation literature to support the care of postmodern materials. These approaches help to illustrate the distinction and the knowledge gap in this area of design conservation.

2.1.1 Methods applied for literature review

This literature review is presented as a narrative to navigate the reader through the relevant areas that cover the scope of this research. Some of the material is not text-based due to the emphasis on practice-led research as an aspect to the study. For example, objects are reviewed as they bring additional texture and depth to the research. Some of the literature review was conducted online, through academic, specialist and conservation database portals. Other literature was consulted from the author's own specialist library of journals, books and conference proceedings, as well as attending professional conferences. These approaches to the review highlighted the gap in knowledge in acknowledging and understanding 'Designer Intent' as a useful tool in fashion conservation and beyond. For example, when searching for the term 'Designer Intent' on *AATA Online* (Getty Conservation Institute 2022) and the *Bibliographic Database of the Conservation Information Network* (BCIN) (BCIN 2022), conservation research databases, only one article was listed that was related to fashion conservation. When utilising the research databases at Nottingham Trent University, for example, BrowZine, a specialist journal library, and Google Scholar only one article was available which referred to 'Designer Intent' in relation to fashion design. In addition, the search for definitions on 'postmodern materials', at the time of this research, brought no results using the aforementioned online portals. Figure 2 shows the main areas of discussion in the following literature review.

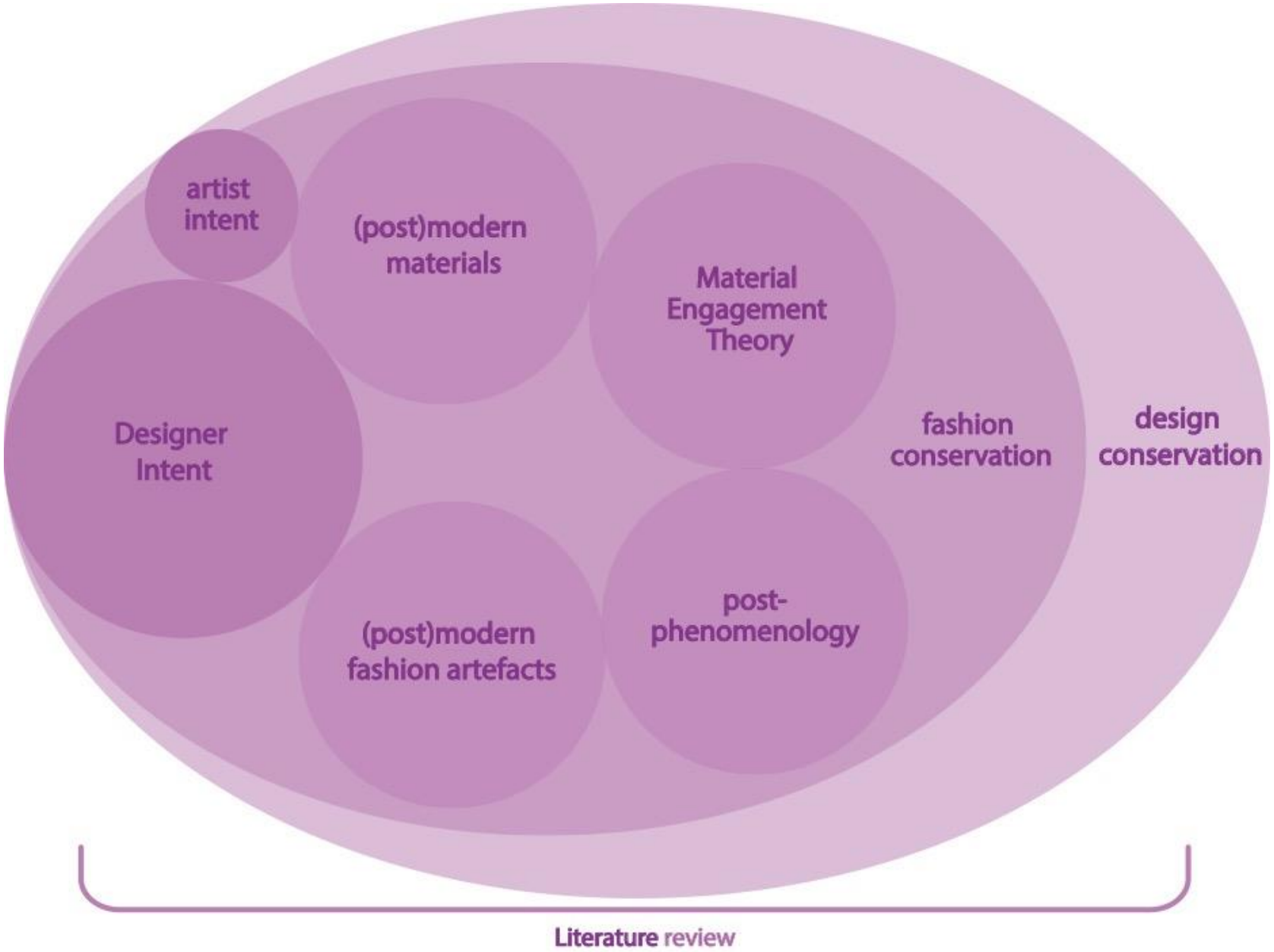


Figure 2. Diagram to illustrate the main areas of discussion in contextualising 'Designer Intent'. Image: ©Leanne Tonkin. 2022.

2.2 Roles and hierarchies in museums

Figure 3 below, illustrates the agency of the artefact when it enters a museum environment and contextualise the roles and responsibilities of the artefact stakeholders, including conservators, curators and collection care staff (Keane 2002: 25). The pink section of Figure 3 shows a typical staffing structure to illustrate the role of the director, senior management team and staffing teams in museums following the hierarchal system as explained by Powell (2015: 17-32). Historically, curators drive the arguments to build the segments of collections within their specialist area and the conservator, who is responsible for stabilising the artefact for display and research, plays an important role in affecting communication for museum uses and users through navigating the artefacts physical existence to a cultural place of public interpretation. Often, this responsibility can be seen as 'parenting' (Keene 2002: 27) when, in fact, the conservator is multiplying knowledge of the artefact through recognising diverse cultural stakeholders through material engagement (see Sections 5.2, 6.2, 7.4, 8.2 and 8.3). Co-managing interpretation between conservators, curators and others will encourage diverse material engagements enabling wider negotiation that incorporates ambiguity (Henderson 2018: 112).

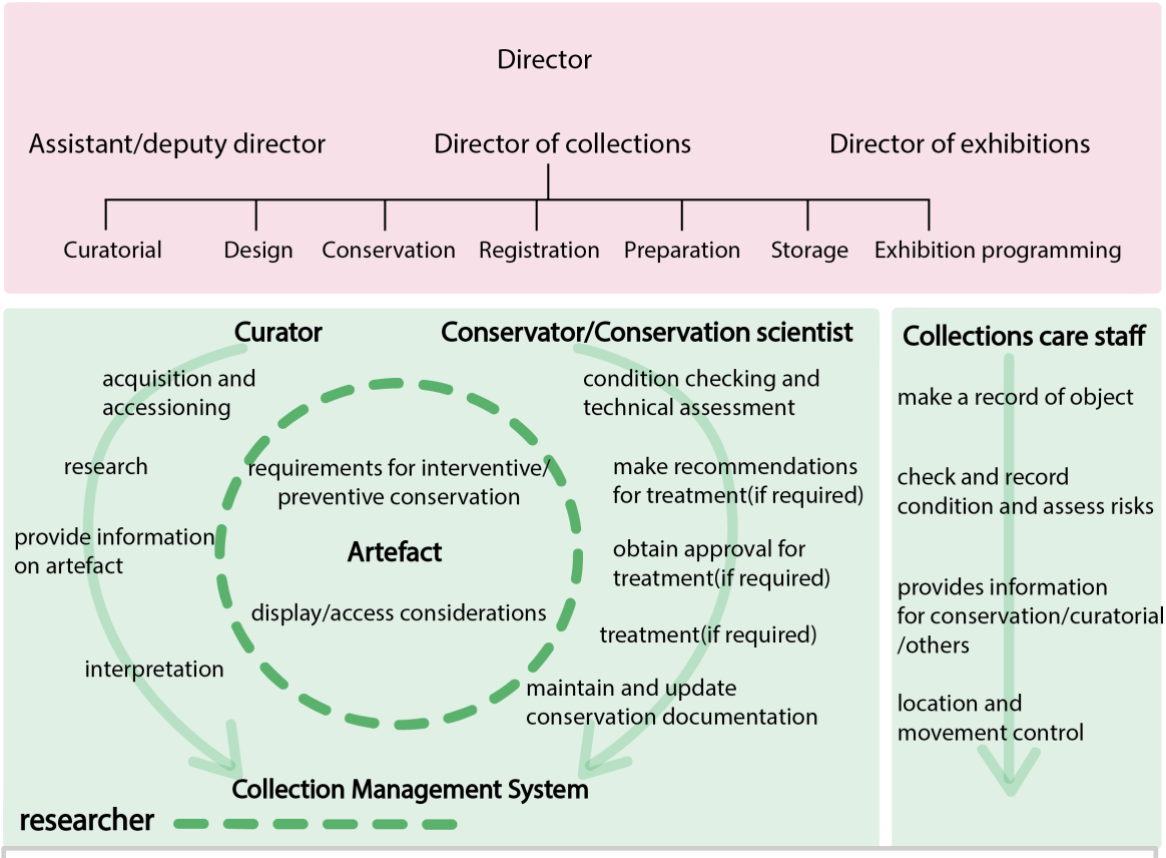


Figure 3. Diagram (after Powell 2015: 17-32; Collection Trust 2017) illustrating the nexus of professional actors in museums, the position of the researcher and their relation to the artefact. Image: ©Leanne Tonkin. 2021.

This positioning of the researcher indicated by the dotted line in the green box (see Figure 3) links to the author's role at The Costume Institute, The Metropolitan Museum of Art, where departmental relationships between fellow conservators, curators and collection care staff

influence conservation treatments, interpretation and display of fashion artefacts for exhibition (see Section 1.1). Therefore, making this position as researcher effective when examining those interrelationships.

2.2.1 Summary of environmental conditions and guidelines

The following technical table (Table 1) provides a brief overview of environmental parameters the forementioned archival stakeholders work with when considering and protecting various artefacts made with different materials, including plastics, in museums.

Environmental conditions	Recommended guidelines
Relative Humidity (RH)	Usual recommendations are to maintain as stable an RH as possible. A commonly used band is between 40–65%RH. RH should not exceed 65% as mould, mildew and pests are more likely to occur. Plastics are recommended at 50% RH.
Temperature (ºC)	Stores can be kept at lower temperatures to slow down degradation of objects (10 – 15ºC). Overall, a museum should try to maintain temperatures between 10 – 21ºC. It is important to maintain stable temperatures rather than allowing them to fluctuate, as this causes greater damage to the collections. Storing plastics at low temperatures will help slow down the rate of harmful reactions.
Light (lux)	Visible light levels for light sensitive objects including watercolours, textiles, paper, photographs and plastics should not exceed 50-80 lux. For less sensitive objects such as oil paintings, wood, ceramics, metals, glass etc., 200 to 250 lux is recommended. These light levels will not prevent damage to objects, they are merely the commonly accepted levels of damage. Although materials such as ceramic, glass and metals can safely be lit to higher levels. These levels should be maintained in display areas, for stores, light levels, when not in use, should be zero.
Pollution	There is no one recommended level for pollutants in museums, each one having its own recommended levels. It is also more difficult and expensive to monitor gaseous pollutants. Pollution can originate from varied sources including traffic emissions, the museum building itself, the collections, storage and display materials, staff and visitors.
Air	Ventilation in storage areas is important for materials, like some plastics, that release gaseous degradation products, for example, CA and CN.
Pests	Integrated pest management is recommended in all areas where artefacts are stored, displayed and handled to monitor any infestations.

Table 1. Summary of environmental conditions and guidelines for museums. Sources taken from SHARE Museums East. (2011) and Masterclass Plastics: Identification, Degradation and Conservation of Plastics by Thea van Oosten and Anna Laganà, 2015. Table adapted by Leanne Tonkin. 2022.

2.3 Modern materials in dress archives

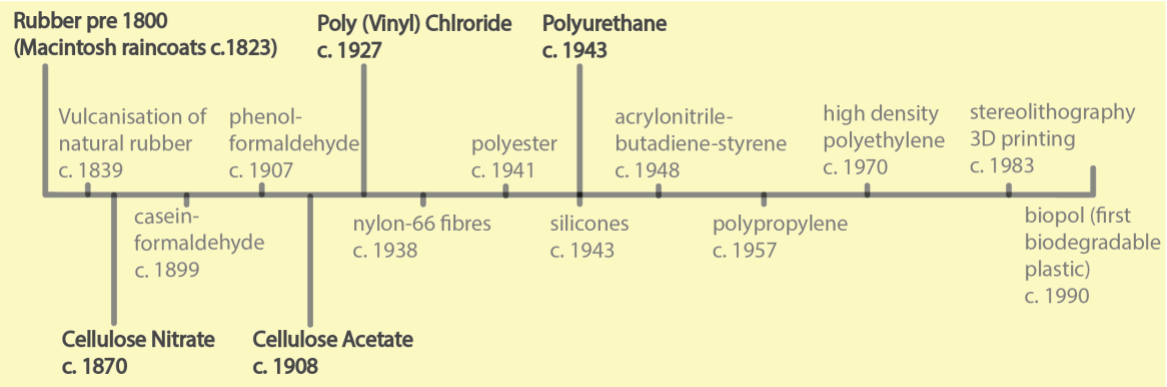


Figure 4. Diagram (after Shashoua 2008; van Oosten and Laganà, 2015; 3D Systems, 2021) showing a brief timeline of some historical plastics and other (post)modern materials commonly found in design objects in museum collections. The five most historically researched plastics materials in conservation are highlighted.
©Leanne Tonkin. 2021.

Figure 4 illustrates, chronologically, the development of some modern materials used in manufacturing design objects, including fashion, which are important to consider when identifying and assessing similar materials in dress archives. The author has included 3DP and biodegradable fabrications to acknowledge the emergence of postmodern materials in the late 20th century (see Section 2.6). The wide variety and increasing availability of plastics indicates the significance of modern materials and their impact on manufacturing methods, therefore increasing the obligation for the conservation field to develop strategies to capture this area of design history (Grattan 1993; Quye and Williamson 1999; Keneghan and Egan 2008; Lavédrine et al. 2012). As a result, modern materials in dress collections are encouraging the employment of diverse collection care skills when analysing, identifying and conserving dress artefacts (Roth and Hausdorf 2019: 11-19; de Groot et al. 2021; Design Museum Gent; UCL). This is evidenced by the current research project, *Glossy Surfaces* (2020 – 2023) undertaken by the Mode Museum (MoMu), Antwerp, at the time of this study, which is examining the challenges of caring for fashion artefacts made with thermoplastic polyurethane (TPU) (see Section 5.4). These challenges will increase with the introduction of postmodern materials (see Sections 1.3 and 2.6) as they become part of fashion history in the 21st century, effectively targeting gaps in collection care skills as previously identified in the 1990s and 2000s (Pritchard and Smith 2008: 132-137; Keneghan 2013). These early attempts to survey plastic artefacts raised concerns because of their poor condition whilst, also, revealing the short life span of these materials. Meaning modern materials require specific knowledge and environmental parameters to conserve and interpret their heritage as highlighted by textile conservators whilst working with designers at the Victoria and Albert Museum (V&A), London:

> The design of the main exhibition space contained a large fluorescent light installation, which dominated the middle of the gallery. The Yamamoto team wanted to include this feature as it enhanced the clean and bright ambience of the gallery and had continuity with designs of other Yamamoto exhibitions. The likely risks to unprotected objects underneath this kind of light were highlighted by V&A conservation to the Yamamoto team at the design stage of the process.
>
> (Glenn 2015: 240)

All these aspects can impact future damage and degradation to happen which can occur very quickly and unexpectedly to dress objects. Limited knowledge of these aspects creates an uncertainty to conservators who work with modern materials where traditional reversible approaches can result in eventual failure because of material incompatibilities and environmental influences (Drosdick 2019: 109-116). This can result in more permanent treatment strategies to achieve longer-term stability (Ibid). An important objective for conservation research into plastics is to investigate suitable and non-invasive repair and cleaning options to increase the tool kit for conservators (GCI 2017; Tate 2017; UCL 2021).

2.3.1 Object example: evening belt by Elsa Schiaparelli c. 1936-37

Using an example of an evening belt designed by Elsa Schiaparelli, c. 1936-37 (Figures 5 and 6), taken from the collections survey undertaken by the author whilst researching plastics in the dress archives at The Costume Institute, The Metropolitan Museum of Art (2015-17) (see Section 1.1), illustrates the unpredictability of archiving historical fashion artefacts comprising modern materials. The belt is made from cellulose acetate (CA) (see Section 2.3.2). At the time the belt was manufactured CA was a newly developed and desirable modern material for designers (see Figure 4) and, due to its unstable properties, the belt had significantly degraded (Tonkin 2017: 154). This object study illustrates the uncertainty in conserving modern materials in fashion artefacts because the original condition and look of the belt has completely changed in 80 years; transformed into degrading fragments in the present (Ibid). Ontologically, the belt as a Schiaparelli design, through active degradation from chemical reactions, introduces different material authenticities of modern fashion artefacts. A developed discussion on the transient nature of modern materials in relation to definitions of material authenticity, as being integral to 'Designer Intent', is further discussed in Chapters 4 and 5.

Figure 5. Remnants of a degraded evening belt designed by Elsa Schiaparelli, c. 1936-37 in storage. Brooklyn Museum Costume Collection at The Metropolitan Museum of Art, gift of the Brooklyn Museum, 2012; gift of Arturo and Paul Peralta-Ramos, 1955 (2009.300.3980).
Image: ©Leanne Tonkin. 2016.

Figure 6. Detail of chemical degradation of an evening belt designed by Elsa Schiaparelli, c. 1936-37 in storage. Brooklyn Museum Costume Collection at The Metropolitan Museum of art, gift of the Brooklyn Museum, 2012; gift of Arturo and Paul Peralta-Ramos, 1955 (2009.300.3980).
Image: ©Leanne Tonkin. 2016.

This historical example of Avant-garde fashion presents different challenges to the acquisition process, where the most 'experimental and innovative' (Pritchard and Smith 2008: 137) designs introduce risks because of the desire by designers to use newly developed materials that often do not comply with the goals of traditional archival protocols. In addition, the risk to collections because of the potentially unstable material properties of the artefact (Ibid). This situation remains a contemporary issue with raised concerns by collection care staff at institutions, like the V&A, the MoMu and The Costume Institute, where recently acquired dress artefacts by designers like Vivienne Westwood, Raf Simons and Iris van Herpen are beginning to show degradation not long after they are designed/acquired (see Section 5.4, 7.2 and 6.2).

2.3.2 Some examples of modern materials in fashion artefacts

Historically, five types of plastic-based materials were identified as being the most problematic for artefacts, including that of dress, in museums catapulting investigation by conservation scientists and practitioners. They raised the profile and importance of the conservation of modern materials in the 20th century and highlighted the uncertainty with other modern materials in dress archives which are somewhat less investigated. However, the examples listed here provide the reader with an insight into the challenges for conservators and other collection care staff. Section

2.6 extends on several of these material definitions as postmodern materials in dress archives have evolved into the 21st century.

Cellulose nitrate (CN) is a semi-synthetic thermoplastic and was originally developed to imitate more expensive natural materials like tortoiseshell (Shashoua 2008: 669).

Cellulose acetate (CA) is a semi-synthetic thermoplastic and, like CN, was produced to imitate expensive, natural materials and was fabricated in several ways including film and textile fibres (Ibid: 669).

Rubber may be obtained from a number of tropical plants, the primary one being Hevea Brasiliensis, native to the Amazon. Vulcanised (synthetic) rubber was developed during the early 19th century by reacting rubber with sulphur to improve qualities and diversify applications (van Oosten and Laganà 2015: 45-6).

Polyurethane (PUR) is a thermoplastic, thermoset and elastomer making it a versatile polymer material that can be manufactured with different compositions and applications (van Oosten 2011: 13-14).

Poly (vinyl) chloride (PVC) is a thermoplastic material and can be plasticised (PPVC) using additives to widen product applications (Shashoua 2008: 48; Svan Oosten and Laganà 2015: 12).

2.4 Conserving modern materials and fashion

Conserving and interpreting contemporary fashion as an historical statement in exhibitions connects to the traditional skills of seamstresses who worked in museums as the source of specialist and hybrid practice (Kite 2010: 36) to develop dress conservation standards to coincide with heightening and modernising skills of dressmaking in avant-garde fashion (Loppa 2007: 7; Vinken 2007: 217). The integration between 2D textiles to 3D design elements through pattern cutting, three-dimensional construction and mount making relating to the impact of the body (Flecker 2007: 12-16) are amongst the types of approaches taken by the fashion conservator. 'Sculptural, architectural and hybrid' (Briggs-Goode and Townsend 2011: 295-96) categories of high fashion artefacts have become common features encountered by fashion conservators as designers have begun to explore new techniques, exploration of body spaces and materials (Ibid: 295-303) towards the end of the 20th century. 'Mediating fashion curatorial expectations of aesthetic experiences' (Vänskä and Clark 2018: 12) adds to the fashion conservators' remit where the transient and immediate quality of fashion is important to translate to construct fashion knowledge through fashion interpretive practice. These considerations, the increased popularity

of contemporary fashion exhibitions from the 1990s (Clark et al. 2014: 171) and those that tour to multi-venues, nationally and internationally, has meant reapproaching the dressing and transportation of fashion artefacts (Kite 2010: 33) to accommodate the quickening practice of fashion interpretation in museums.

Fashion conservators are responding to the high demand of fashion exhibitions by sharing their approaches: Morris and Keneghan (2011: 111-117; see Sections 2.9.4 to 2.9.6) who discuss the conservation and preparation of degrading plastics from the early 20th century for display; de Sá et al. (2014: 193-203) who writes about the challenges of conserving material authenticity when considering unstable modern materials and fashion; Glenn (2015: 239-244) who describes dilemmas of working with the expectations of the designer and their team whilst exhibiting modern materials; Tonkin and Scaturro (2017: 154-167) and Tonkin (2019: 69-76) who analyse the often, immediate impact of degradation on (post)modern materials and fashions of the 21st century. These practice-based perspectives and investigations acknowledge the pressures of historically interpretating the emerging modern material palette of early 20th century designers (Tonkin2017: 152; Tonkin and Rizzo 2017: 129-141). It also shows the introduction of new forms of material engagement for the designer in exploring their creative intelligence in times of 'fast-changing technology' and 'rapidly changing fashion' (Evans 2013: 16). Designers were keen to respond with greater variations and flexibility in designs enabling faster transitions and mutability in fashion (Ibid: 16). Often designers would exploit traditional construction methods using plastic materials showing that new materials were as precise as traditional materials, such as, silk, cotton and wool, in producing different and innovative designs.

Designs like the 'Invisible Sandal', by Salvatore Ferragamo, c. 1947, made using nylon monofilament to create the upper (The Metropolitan Museum of Art: 2022a) (see Figure 7), a thermoplastic polyurethane coat, by André Courrèges, 1972 (Ibid: 2022b) (see Figure 8) and a 'Mood' raincoat, by Mary Quant, 1966, made with PVC (V&A 2021), demonstrate the desire by fashion designers to engage with different manufacturing processes to accommodate an alternative modern customer base.

Figure 7. The 'Invisible Sandal' designed by Salvatore Ferragamo, c. 1947 during a collection survey by the author. Brooklyn Museum Costume Collection at The Metropolitan Museum of Art, gift of the Brooklyn Museum, 2009; gift of Mrs. R. L. Gilpatric, 1960 (2009.300.3781a, b). Image: ©Leanne Tonkin. 2016.

Figure 8. Detail of coat designed by André Courrèges, c. 1972 during examination by author. The Metropolitan Museum of Art, gift of Florence Irving, 1960 (2006.146 a-c). Image: ©Leanne Tonkin. 2016.

2.5 Postmodern fashion

Postmodern fashion can be perceived as an 'anachronism' (Geczy and Karaminas 2019: 4) of previous perceptions of modern fashion. The continual transformations inside the fashion system have led to destabilising traditional perspectives, chronological analysis and the rejections of authorities (Vainshtein 2019: 47). Thus, connecting with argumentations of postmodernism in the 1980s on its eclectic approach to style being congruous with fashion (Evans and Vaccari 2020: 22). Recently, the term 'end of fashion' by Geczy and Karaminas (2019) has been used to acknowledge the dismantling of the 'rules of style, colour and product contamination' of modern fashion (Tseëlon 2016: 224). The modern fashion lens that supports 'master narratives' (Evans and Vaccari 2020: 23) that classified aspects of identity, class and geography, have become unclassified, less probable, dependent and processed (Barnard 2014: 152; Tseëlon 2016: 225). Thus, embracing a multiplex of perspectives, relationships and sensibilities with fashion creating a sense of 'instability, fluctuation and indeterminacy' (Vainshtein 2019). Caroline Evans (2003) debates this type of spiritualism of fashion as enmeshed between modernism and postmodernism, 'Fashion undoes those distinctions among modernism, modernity and postmodernism, because they are no longer discrete categories but are held in a creative tension in fashion, not only in its design but also in its techniques of production, marketing and dissemination.' (Ibid: 306). Evans identifies with the complexities of political, economic and societal positions of design and intermeshed trajectories of fashion during the later 20th century in which postmodern fashion emerged.

2.5.1 Postmodern fashion conservation

Publications in the conservation field include the conservation of design artefacts, however, these publications tend to follow an arts-based approach, a formal qualitative inquiry, to the study and conservation of design artefacts (see Section 2.9). This approach has led fashion conservators and curators to ask the question, 'Should design conservation follow the same rules that have been considered for the conservation of artworks?' (de Sá et al. 2014: 194; see Section 2.8). This question emerged from the dilemma of considering authenticity, ephemerality and artefact representation in modern fashion by conservators, scientists and curators whilst considering fashion artefacts made with polyurethane. As highlighted in the essay, *How to keep what was intended to be temporarily functional? Reflections on decision-making for the conservation of polyurethane ready-to-wear fashion* (de Sá et al. 2014), this exploration of polyurethane in dress archives is evidence that modern materials in fashion artefacts do not conform to traditional expectations of longevity for archival use because of a tendency to show signs of quickening degradation.

Degradation in modern materials is perceived differently to traditional materials (Coon et al. 2016: 7). This discovery reapproaches ideas about interpretation to include aspects of transience as part documentation for decaying modern materials and fashion artefacts (Ibid: 195, 202). de Sá et al. (2014: 194, 196) explain how Portuguese designer, Miguel Rios, replaced degraded foam handles on a handbag design to maintain customer loyalty. In the context of postmodern fashion history (see Section 2.5.1) this encouraged questions on what should be interpreted about the design process: 'How can this handbag be exhibited in the future? Should the strap be replaced, or should the degraded one be exhibited?' (Ibid: 197). This essay indicates design objects may show diverse material and artefact stories in the process of decay that require further analysis, 'Perhaps both [handles] could be exhibited, with an explanation of the 'true' practice of design production, revealing both failures and successes. These are all questions with no simple answers and are strongly dependent on institutional and cultural values and on the definition of authenticity.' (Ibid: 197). In 2009, 750 objects were recorded as having plastic components in the fashion collection at the V&A (Pritchard and Smith 2009: 133) and a recent survey in 2020-23 between MoMu, MUDE and The Costume Institute, The Metropolitan Museum of Art, confirmed 313 dress artefacts had thermoplastic polyurethane coatings (Verkens 2021: 4). These figures indicate the proportions of ephemeral modern materials in dress archives, indicating the urgency to discover conservation and interpretation solutions in documenting 'Designer Intent' (see Section 2.7).

2.6 Postmodern materials

In addition to using traditional modern materials (see Sections 1.3 and Section 2.3.2) some fashion designers are following sustainable design strategies in textile manufacturing, ones that challenge the growth model. Biodegradable materials have characteristics favoured by some designers, who intend for their creations to remain stable in use and wear before organic disposal. 'Progressive fashion' such as this raises questions and the need for new interpretive practices within fashion conservation. The desire for these types of materials is confirmed in the publication *Living Matter: The Preservation of Biological Materials in Contemporary Art* (Rivec and Roth 2022) which discusses the past and continual commitment from artists, designers, collections care professionals and others whose practices are dedicated to the trajectories of biological material engagement. These proceedings acknowledge and evidence bio-based art and design works as being part of the cultural heritage, confirming the importance of the conservation and interpretation of 'living matter' as bio-based heritage. New polymer, bio- and electronic based (e-textile) materials have emerged over the last few decades (see Section 2.6.1 and 2.6.2) and caring for these materials in contemporary fashion collections has become an archival dilemma for museums, particularly within artefacts that are intentionally ephemeral. Postmodern materials, a term derived from the scope of this research, acknowledges the creation of new

materials using progressive production methods developed from the late 20th century to the present. These methods may be influenced by advances in material engineering, digital technology and environmentally focused design that aligns with the ecosphere in a postmodern, postgrowth culture.

2.6.1 Postmodern materials found in fashion artefacts

This section provides examples of postmodern materials with extended context on E-textiles and digital fashion to exemplify some of the new considerations that fashion conservation and curation will encounter in the future (see Section 2.6.1.1 and Chapter 8). These materials and products illustrate the multi-use(s) and user(s) of digital technology through fashion design presenting different material trajectories for the consumer and fashion history. The following list briefly explains the characteristics of each material and examples of use for clarity within the scope of this research. These materials connect fashion to the qualities of nature, the environment and the communities who will benefit from these elements. Consequently, they present other histories, alternative 'materialscapes' (Atmodiwirjo and Yatmo 2021: 328) which consider material authenticities, cyclability and multidisciplinary approaches to fashion design that involve elements of co-existing with and beyond the physical materiality of the artefact. The Kaleidoscopic Perfectos Dress by ANREALAGE c. 2016 (see Section 5.3), the Wild Rubber Dress by Westwood and Kronthaler c. 2013 (see Section 7.2) and the Junya Watanabe Solar Panel Coat c. 2016 (see Section 8.3) encompass the wider 'materialscape' that mediate other uses and users to support postgrowth systems.

Polymer-based

Polyurethane (PUR) is very versatile because it can be manufactured as a thermoplastic, thermoset and elastomer making it highly desirable. It can be manufactured with different compositions and applications (van Oosten 2011: 13-14). **Thermoplastic polyurethane (TPU)** is an example of the type of surface coatings applied to textile and leather substrates often found in dress archives (Verkens 2021: 9). PUR ester aliphatic and/or aromatic coatings are common TPU coatings providing glossy, matt surface effects with elasticity and thermoplastic properties which helps with drape and shaping (Ibid: 6).

Poly(vinyl) chloride (PVC) is a widely produced thermoplastic material and can be plasticised (PPVC) using additives to help manipulate properties to suit many end-uses. When plasticised, it can be found in fashion artefacts where flexibility is required (van Oosten and Laganà 2015: 12). Often PPVC can be blended with TPU (de Sá 2017: 227-8) to offer different surface qualities to suit the designer's desires (see Section 5.2).

Naturally sourced materials

Natural rubber which can be obtained from a number of tropical plants and latex is a derivative from the same source. Rubber comes from the latex of the rubber tree (Hevea brasiliensis), native to the Amazon. Natural rubber is valued for its higher elasticity, density and toughness, the majority of which is manufactured through commercial rubber plantations, mainly in Asia. Rubber tappers remain active in the Amazon who harvest **wild rubber** to collect latex from wild rubber trees, without harming them (WWF 2014: 4) (see Section 7.2). Vulcanised rubber is a product made from further processing by reacting rubber with sulphur to help increase elasticity and improve durability (van Oosten and Laganà 2015: 45). There are also many types of synthetic rubbers available, for example, Chloroprene rubber (Neoprene), silicone and nitrile rubbers (Ibid: 48). Rubber and latex are widely used in products including clothing, furniture and protective equipment.

Bio-based materials are sustainable materials that are biodegradable and created from biomass. For example, fibres and fabrics derived from food products and industry discards (Ehrman 2018: 173). They are often classed as biodegradable because they are capable of being decomposed by bacteria or other living organisms and thereby avoiding pollution. Biomaterials are rapidly developing and can be used in many types of products like toothbrushes, clothing and plastic bags. Bio-based approaches are being explored as examples of how to develop new generation fibres and methods of **plant-growth materials** (see Section 7.4).

Eco-materials are ecological derived materials that are environmentally friendly. Their production, placing and maintenance have low environmental impact. For example, utilise eco-friendly finishing, often using nanotechnology, enzymes and other nature-based finishing agents that act as a replacement to conventional systems for finishing textile materials (Periyasamy and Venkatesan 2019). The manufacture of these types of material supports the well-being of consumers and the good working conditions of the people making the clothes.

Additive manufacturing processes

Three-dimensional printed (3DP) materials are produced from a variety of Rapid Prototyping (RP) methods that fabricate materials layer by layer to form objects, for example, Fused Deposition Modelling (FDM®) (solid based system), Stereolithography (SLA®) (liquid-based system) and Selective Laser Sintering (SLS) (powder-based system) (Gibson et al. 2010), novel materials continually emerge from this type of manufacturing. 3DP materials are widely used from household goods to architecture and techniques. RP techniques like SLA and SLS are often explored by fashion designers sometimes in collaboration with other material specialists, like architects, material engineers, to reapproach design around the body and challenge traditional

techniques (see Chapter 8) (Bolton 2016: 58-9, 114-17, 158-60; Braddock-Clarke and Harris 2012: 198-203).

E-Textiles

Electronic textiles (E-textiles) are textiles with electronic properties included in the textile fibres (Kettley 2016: 10). Fibres can incorporate LEDs (Light-Emitting Diodes), solar panelling and touch technology which are woven, knitted or inserted into a fabric (Hughes-Riley et al. 2018: 2-3). Coded and wireless technology help activate the electronic textile under different environmental conditions, for example, a sequence of illumination of LEDs, when pressure is applied or the dimming of natural light. The combination of textile and electronic materials as listed here can support user experience (UX) which involves wearer technology engaging with the user's actions and emotions (see Sections 8.2, 8.3 and 8.4) (Benyon 2019: n.p).

2.6.1.1 Development of E-textiles

E-textiles emerged in the 1990s becoming more sophisticated in the 2010s as functional yarns (Hughes-Riley et al. 2018: 2). For example, E-yarns (light-emitting diodes integrated into yarns) developed for E-textile design prototypes mediating wear and environmental safety (see Section 8.4.1) (Hardy et al. 2019). They were developed to conserve material properties by incorporating electronic chips into the yarn structure (Hughes-Riley et al. 2018: 3, 9) adding to the possibilities of the postmodern material palette for designers. Digital technologies used in the design and processing of the materials, for example E-Yarns, Bluetooth technology and solar panel energy provides new ways to mediate with fashion making digital technology not only wearable but embedded in the material process itself (Küchler 2008: 103; Smelik 2018: 34-54; van Dongen et al. 2019: 2-3). These technologies mean fashion conservation may be encountering an era of 'new materialism', a term analysed by Anneke Smelik (2018: 34-54) in her article *New materialism: a theoretical framework for fashion in the age of technological innovation.* Smelik explains, 'wearable technology illustrates the uncanny agency of inanimate things' (Ibid: 35) which highlights the interactive material properties and qualities of embedded technology that can engage in an interpedently and multiplex way, including and beyond that of the wearer.

2.6.2 Timeline of modern to postmodern materials

Figure 9 shows a simple timeline to illustrate the progression of modern to postmodern materials. Rubber, PVC and PUR remain favourites because of their versatility as polymer-based materials.

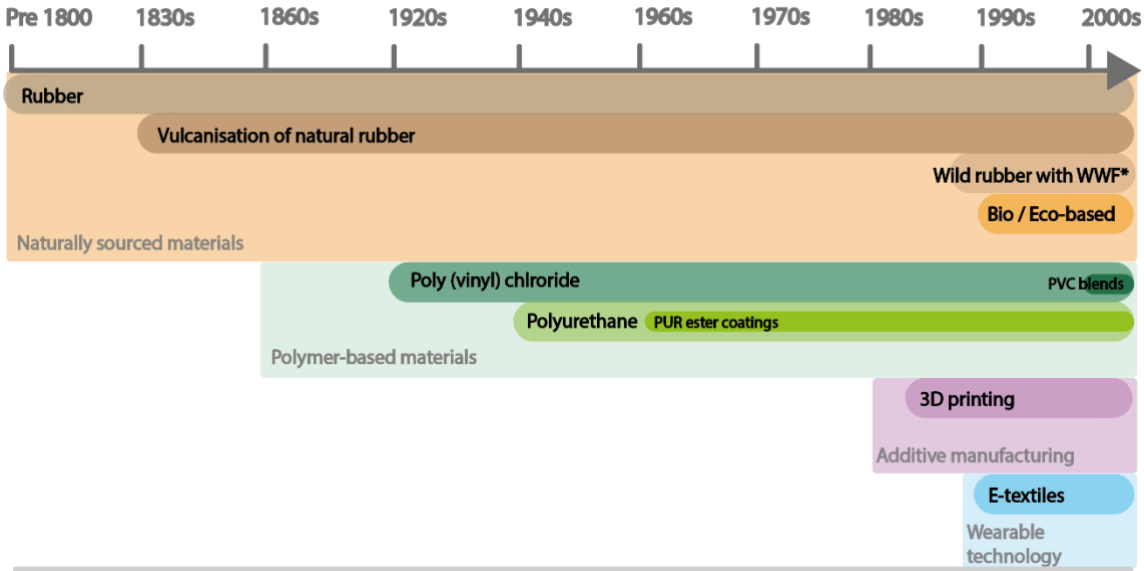


Figure 9. Development of modern to postmodern materials (after Shashoua 2008; Hughes-Riley et al. 2018; Biodegradable Polymer - an overview, ScienceDirect Topics, 2017) Illustration: ©Leanne Tonkin. 2020.
*In collaboration with the World Wide Fund for Nature, UK, social action project.

2.7 Scoping the value of 'Designer Intent'

Design contributes to many different aspects in society and the role of the designer helps to enable experiences within society (Press and Cooper 2003: 69). There is a distinction that design is not part of art, 'it's bigger than that, it's in art and beyond art' (Weir 2018) and 'design has function and solves problems, art does not' (Boydell and Draper 2019) when considering design artefacts in and outside of the museum context. Furthermore, design objects have a frequent, commonplaceness that can be (multi)manufactured and (multi)functional, decorative, customisable and recyclable. This presents challenges in defining 'design conservation' and therefore understanding 'Designer Intent' as an important attribute to consider in conservation and curatorial practice. As supported by the aims and objectives of this research (see Section 1.4), 'design conservation' is the conservation of designed objects that could derive from hand-making, mass-production, singular or unique one-off design and 'branded objects' and 'Designer Intent' refers to the experience the designer intends to create (see Section 1.2). The role of this literature review is to identify the gap in knowledge, in relation to documenting 'Designer Intent' in conserving postmodern materials and fashion artefacts.

2.7.1 Defining 'Designer Intent'

'Designer Intent' acknowledges a continuous material engagement and relationship between the design artefact and the user of that artefact is an interdefinable process rather than being static, isolated and independent entities. This study identifies 'Designer Intent' as a way of evaluating

authenticity in the conservation of fashion artefacts incorporating postmodern, transient materials and technologies. It supports the legacy of designers, dress history and object-orientated (see Section 2.10.4.1) work, like that undertaken in fashion museums, placing emphasise on the concepts, feelings and thoughts of the designer rather than the collectible object. This methodology acknowledges different ways of conserving, interpreting and engaging with contemporary fashion history, with and beyond the physical existence of the artefact. Aspects of material authenticity (see Sections 4.2 and 4.3), the role of degradation (see Section 6.2) and environmental influences are related to the intentions of the designer, attributing semantic value to changeable materials (Hauser 2022: 74-75). 'Designer Intent' acknowledges aspects of temporality and ephemerality of material engagement that can encourage diverse users and uses of fashion artefacts as a way of continuing the life of the design object(s) through 'fashion memory' (Tonkin et al 2022: 96).

2.8 'Designer Intent' and design conservation

Design conservation is not widely recognised as a distinct discipline in the field of conservation, therefore, acknowledging design conservation as an area of design history is important to clarify and corroborate the role of 'Designer Intent' and fashion conservation (see Section 2.9.3). Figure 10 is an overview of the main areas researched in this study. The Venn diagram supports the main research question, aims and objectives (see Section 1.4) in examining 'Designer Intent' to determine the importance of creative design and its interpretation through the conservation process by questioning: How can Designer Intent be understood, captured and conserved alongside an archived fashion artefact? The interrelations between 'Designer Intent', (post)modern materials and dress artefacts in a cultural heritage context are the main sources in which this review is undertaken, whilst assessing the possible characteristics of design conservation. The diagram includes the central role of a MCT that may support new documentation for (post)modern fashion artefacts suggested through the gap in literature to help strategize the conservation and collection of contemporary fashion heritage.

The three intersections of the Venn diagram represent other considerations about how the main areas of research interconnect with each other. (1) 'Designer Intent' and dress artefacts considers materials that are not (post)modern. (2) 'Designer Intent' and (post)modern materials considers all other design artefacts. (3) Dress artefacts and postmodern materials considers the omission of not recording 'Designer Intent' as part of the design process.

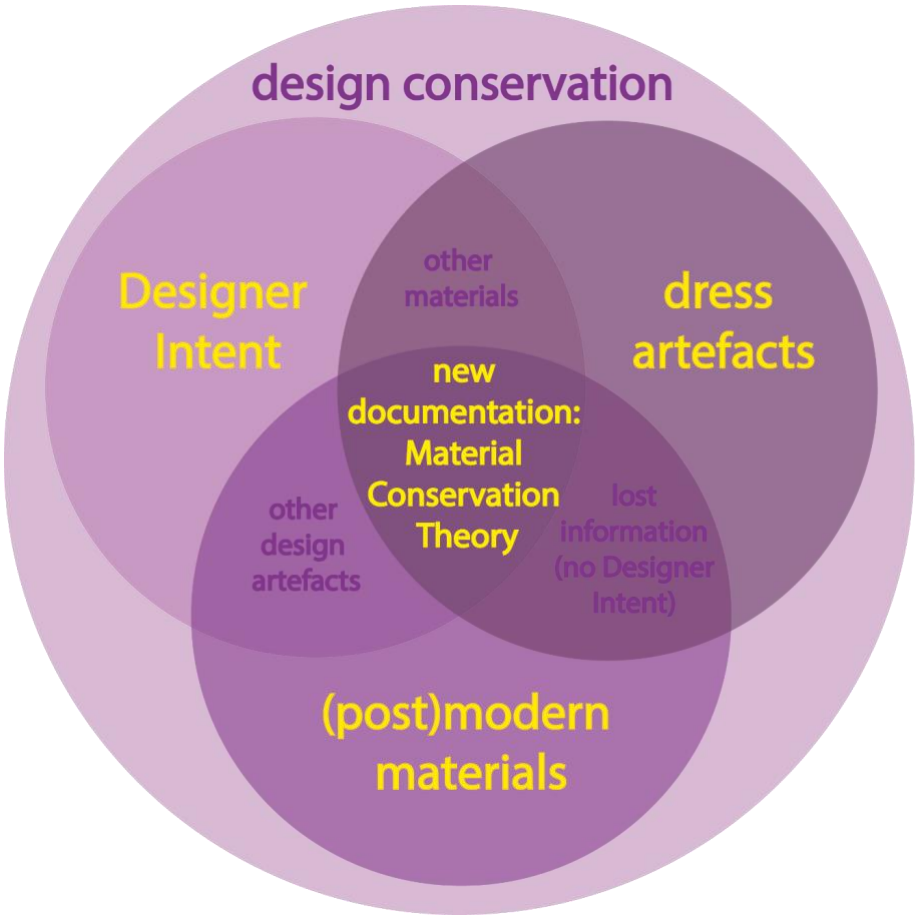


Figure 10. Venn diagram showing the general overview of the areas researched as aspects of design conservation. Image: ©Leanne Tonkin. 2021.

The term 'design conservation' was first recognised (and compared to art conservation) in 2014 as a suggested approach to conserving highly ephemeral materials in high fashion collections (de Sá et al. 2014: 194; see Section 2.5.1) and the concept of 'Designer Intent' emerged in 2009, as an element to be considered for surveying and documenting contemporary design objects at the San Francisco Museum of Modern Art (SFMOMA) (Schertel 2011: 21). Recording the 'Intent of the designer' (Ibid: 19) as part of the artefact assessment criteria aids the conservator, curator and collection care staff to learn more about the materials, processes and manufacturing 'to enhance the collection beyond the physical object' (Ibid). This new approach recognises the conceptual thinking of designers as a transferable asset whilst considering the longevity of pieces made from modern materials. Documentation through the process of surveying design objects underlines the value in recording 'Designer Intent' to conserve new approaches in design conservation that responds to fundamental changes in design (Ibid: 24). It is observed the artist's idea behind conceptual art may be more important than the work itself, whereas with conceptual design, as Kroll et al. (2001: 1) state, 'incorporates novel concepts and exceptional functionality' which

requires disengaging from industry to allow critical thinking (Schertel 2011: 21-22) to then relate back into the design system but in an advantageous way (Kroll et al. 2001: 1).

The author believes that Schertel (2011: 22) assumes a contemporary art conservation approach is required, revealing no methods have been developed to consider the conservation of contemporary design pieces that are often collected because they are 'one off design objects…the ultimate…' (The Getty Conservation Institute 2014) requiring different approaches, separate to that of contemporary art pieces. Design artefacts, like those at SFMOMA, are showcased alongside art objects in publications relating to the conservation of modern materials (van Oosten 2011; Lavédrine et al. 2012; Bechthold 2019; van Oosten 2022). This area of conservation is supported by other projects through academic training, conferences and online resources, for example, COMPLEX research at the Institute for Sustainable Heritage (UCL 2020 to present), the Getty Conservation Institute's (GCI) research into plastics (GCI 2017), the Plastics Heritage Congress in Naples, 2022 and Future Talks, in Munich (The Design Museum 2022).

The recognition of conserving modern materials in the 1980s (Sirkis 1982), for example cellulose nitrate (CN) and cellulose acetate (CA), has often been subsumed into contemporary art conservation in conference proceedings (Corzo 1999; Hummelen and Sillé 2005; Townsend et al. 2016). This is evident through the working group *Modern Materials and Contemporary Art of the International Council of Museums: Committee for Conservation* (ICOM-CC) whereby the group 'aims to promote and facilitate the dissemination of research, discussion, and thinking on the full range of conservation issues and implications for modern and contemporary art' (ICOM-CC 2021). This statement, in contrast to the later formations of The Institute of Conservation Modern Materials Network IconMMN (2018) (Icon 2022) and Future Talks (2009), aims to place priority and context in conserving new materials with contemporary art works as opposed to design artefacts.

2.8.1 Design vs art artefacts

Fashion artefacts are functional design pieces intended to cover the body to create human experiences through wear. When they archived and/or exhibited these artefacts undergo a transformation because the human experience through wear is reduced to the imagination of the user(s) of the museum. Art objects do not go through this type of transformation because the usability of the artwork is intended to be situated, that can be specific to a museum or gallery. Fashion artefacts present other differences to art objects in that they are often archived with other ephemera that augments their interpretation, for example, photography, graphic design and fashion show invites (Pecorari 2021: 88). Categorising an item as an 'object' or 'artefact' influences the way in which fashion artefacts enter cultural heritage institutions, reinterpreting

them as ‘art’ when they are designs. Similar to art, the pure end of design explores the abstract realm; the applied end, the usage and reality of design objects (Haney 1905: 182-83). The latter, applied context raises debate in relation to archiving protocols because the collecting, conserving and displaying of design often links to ‘hand-batch, mass-produced, a one-off or a ‘branded object’ created by a global network of design, production, distribution and marketing’ (Farrelly et al. 2016: xx). These ‘cultural constructs’ (Ibid) of design artefacts maintain historical relevance to a designed object in the present and in the future because they derive from an industrial past (Ibid).

2.8.2 Designers’ responses to design vs art

One of the earliest publications to examine conservation issues in contemporary art, *Mortality, Immortality: the Legacy of 20th Century Art* (Corzo 1999) includes a paper written by textile artist Shelia Hicks entitled ‘Linen Longevity’ whereby she discusses how thinking about modern materials and longevity leads her to move away from art ‘and veer more towards the design world’ (Hicks 1999: 141) where she can ‘penetrate the mystery of all human artefact making’ (Ibid). She identifies with human embodiment through design when engaging with her work, thinking not as an artist, ‘I feel inspired to walk into the world and discover form and color with my sensibility, not an artist’s sensibility’. Hicks exemplifies her ‘sensibility’ in the engagement with utility wear by borrowing nurses’ blouses for her installation *Le Démêloir* (1978) (Ibid) that were still being used by the nurses and were returned to the respective hospital after the exhibition. Previous wear, current usage and future lives of the design artefacts were elements in her exhibition, acknowledging design as an enabler to engage the audiences with the purposes of utility clothing to inform art. Her paper is the only one related to textiles in this publication and, in the opinion of the researcher, she is the only contributing author to show this dichotomy in approach between being an artist and a designer, and how those values may be captured differently.

Later publications address similar challenges for fashion designers. One of only three papers published in the aforementioned Future Talk series, Designed for Conservation? The Impact of Exhibition Design on Modern Materials (Glenn 2015: 239-244) explains the role of textile conservators when displaying the work of designer Yohji Yamamoto at the V&A. ‘Light was integral to the design’ (Glenn 2015) of the exhibition space taking the light exposure beyond the standards as set by the museum. Glenn acknowledges and agrees with the aim of ‘Designer Intent’ and his team as the feature of light, similar to retail spaces, brings out the ‘clean and bright ambience of the gallery’ (Ibid) as an important fashion experience in showcasing his designs. These considerations show Yamamoto’s approach when displaying modern materials and design are different to that of showing artworks ‘…in my line of work, there is another factor to be considered: clothes are bought and worn by people every day, so they can’t really be considered

as works of art.' (English 2011: 50). Yamamoto's common interest in using art spaces, like artists, is clear through the desire to exhibit his work as 'continuity with designs of other Yamamoto exhibitions' (Glenn 2015: 240), however, he does not relate to the interpretation of art for his work, but design '…I'm a designer, a fashion designer. I'm not putting special meaning on artist. (…) for me the vocabulary of so-called art sounds odd.' (English 2011: 50).

Caroline Evans (2003: 8) uses the work of Rei Kawakubo, alongside Martin Margiela and Viktor & Rolf, as an example of postmodern fashion that can be culturally characterised as showing similarities between fashion and art. This is because of the heightened engagement the designer intends for audiences in a postmodern society (Evans 2003). 'Kawakubo valiantly tried to re-see that body from another perspective, to invent it from scratch and to envisage multiple possibilities for such a body, fashioning fabulous creatures on the catwalk, fashion itself being the enchanting spectacle of signs' (Evans (2003). Kawakubo's experimentation to design around the body is evident in the conservation of her ensembles. From the author's own practical experience of working with Kawakubo's work at The Costume Institute, her pieces are evidence of high standard tailoring and finishing, using modern material elements to re-sculpt and re-shape the dressing of the body (see Figure 11). Extravagant drape, accentuated silhouette and unrestrictive 3D construction were all features of the design where the finish of the garment was indicative of an ensemble that was intended to be reproduced for multiple users to share in the 'spectacle'. Kawakubo states in 1998, 'Fashion comes in a series, and it is a more social phenomenon. It is also something more personal and individual because you express your personality. It is an active participation; art is passive.' (Bolton 2017: 60). Modern materials enabled designers like Kawakubo to explore personal diversity in fashion avoiding restrictive technical approaches to design with the intention of sharing the meaning of her styles. Despite this clear recognition in perspectives between design and art, design conservation and designer values are still unclear in contemporary publications on conserving modern materials.

Figure 11. Ensemble designed by Rei Kawakubo/Comme des Garçons, RTW, A/W 2016/17. (2016.617a-e). Image: ©Leanne Tonkin. 2016.

2.9 'Designer Intent' vs artist intent

The less well established practice of design conservation means the role of the designer in conservation and the concept of 'Designer Intent' is not traditionally considered to the same degree (Tonkin 2017: 152). The following section shows current protocols, the re-examination and re-evaluation of recording the artist intent through published works which show how the concept has evolved through the conservation and interpretation of contemporary artworks. Some points raised in this section connect to previous contextual discussion on artist and 'Designer Intent' in Chapter 1, these concepts are included in this section to exemplify the contributions in conservation literature, and therefore in practice, clarifying and reassessing the well-developed discussion of the artist intent in relation to modern materials and technologies. An examination of the literature of artist and 'Designer Intent' helps to identify similarities, differences and contrasting considerations between the two concepts and knowledge gaps on the evolution of

'Designer Intent' as a term worthy of documenting when conserving modern fashion, fashion conservation and postmodern materials in dress archives.

2.9.1 Documenting artist intent: an established concept

Art conservators broadly use the term 'artist intent' to reference the artist's ideas during the creation and execution of an artwork, to reflections artists have years later in relation to a conservation problem (Wharton 2015: 1-2). For example, conserving degradation and damage of an artwork may require additional discussion between the conservator(s) and the artist whilst re-engaging with the art object (Beerkens 2012 et al.: 36). Capturing 'deepest intentions' from artists (or designers) is a tremendous challenge because this is not easily, if not, impossible to 'verbally communicate' (Van Saaze 2013a: 54). Interviewing artists directly, helps the conservator to capture an artist's intent which significantly helps conservation practice in decision-making. Lydia Beerkens et al (2012) positions a well-structured approach in how to document artists intent in the publication *The Artist Interview: for Conservation and Presentation of Contemporary Art Guidelines and Practice.* This is a good starting point when discussing some of the similarities and contrasts when thinking about how to document 'Designer Intent'. Beerkens et al. (2012) explains the objective of the artist interview is:

> …to gain in-depth understanding of the artists' intent in relation to his working method and choice of materials, production techniques or preferred media. What aspects are important for the meaning of the works as regards materials, appearance, function and presentation…
>
> (Beerkens et al. 2012: 15)

These aspects could be borrowed, re-examined and appropriated with a design context to suit a designer's conceptual perspective relating to new materials and technologies. This method of documenting could help initiate the process of capturing a 'Designer Intent' and its relationship with modern materials. The pragmatism of the publication is a signifier of the connection and relationship contemporary art conservators have already established with artists alongside early initiatives like ADP (1990), INCCA's *Guide to Good Practice: Artists Interviews* (2002, updated in 2016) and Voices in Contemporary Art (VoCA 2019). Aspects of ephemerality and permanence are blurring as contemporary artworks become more complex, which has encouraged a reconsideration of the artist intent (Wharton 2015: 1-12). Capturing the concept of an artist, such as their idiosyncrasies, material-specific choices and relationship to a particular moment, is becoming more important to record to consider possible futures of the artwork (Stiger 2009: 74-81; van Saaze 2013a; Hermens and Robertson 2016; Wielocha 2017: 35; Roth and Rivenc 2022: x-xii). Conservators working with contemporary art and design works are now becoming the agents of change because of intended ephemerality by the artists and inbuilt obsolescence of museum artefacts.

2.9.2 Re-examining artist intent

Documenting artists intent has been a developing concept since the 1990s (ADP 1990; Dykstva 1996; Corzo 1999; Hummelen and Sille 2005; Beerkens et al. 2012; SBMK 2019) due to the dilemmas in conserving the longevity of contemporary art made from a multitude of media. Dykstva (1996) introduced a more transient understanding of the concept 'artist intent' to increase its practical applicability to art conservation. '…it was scientifically doctrinaire and lacked scope and rigour.' (Ibid: 215). Dykstva discusses the changing values present in the intentions of artists which questions what is intent and who helps shape it? Wharton (2015) reassesses authors of artist intent like Dykstva, in his paper *Artists intention and the conservation of contemporary art* and tracks the development of the variations of the applicability of artist intent to conservation research and practice. Wharton (2015) identifies the relevance of the biographical journey (Kopytoff 1986: 64-91) and the influence of external agents on artists themselves when they are asked to revisit their works for curatorial and conservation purposes. Wharton argues '…artist intention cannot be disentangled from the social and material circumstances of production…' (Ibid: 8) and suggests more applied terms like 'opinions', 'guidelines' and 'directives' (Ibid: 10) giving a more transferable meaning to the term 'intent'. This perspective lends itself well to Vivian van Saaze's earlier publication *Installation Art and the Museum: Presentation and Conservation of Changing Artworks* (2013b) where in one chapter titled 'From intention to interaction: artist intention reconsidered' (Ibid: 109-142) van Saaze explains the transient and transportable nature of artist intent through a variety of approaches taken and observed in her experience as a conservator of contemporary art:

> Artist intention is not simply derived from the artist or the artwork, a view still commonly held in conservation practice, but is *produced* instead. Artist's intent, in other words, is the result of what is *done* in knowledge and documentation practices. This implies that rather than being a facilitator or 'passive custodian', the curator or conservator of contemporary art can be considered an interpreter, mediator or even a co-producer of what is designated as the artist's intention.
>
> (van Saaze 2013b: 115)

This highlights curatorial and conservation responsibilities to highlight the artist's association with the work. Certainly, if the original materials used by the artist no longer inform future conservation requirements due to changes brought about by natural ageing or other environmental phenomena, including the changing values of the museum. van Saaze (2013) and Wharton (2015) reiterate that these elements are movable assets in contemporary art archives and acknowledge the 'concept of variability' (van Saaze 2013b: 138) in capturing the artist intent because there is no consensus amongst museum professionals and artists, as to what extent to peruse the (re)representation of an installation in the future (Ibid: 120).

Gaining an honest response from the artist is challenging and presents 'interpretation difficulties' (Ibid) because of the intentions of the museum stakeholders and/or the state of the material of the artwork can be somewhat different to what the artist is currently feeling. A more 'applied definition' (Wharton 2015: 10) of artist intent would encourage flexibility and re-evaluation of what is achieved with interaction with the artist. Other conservation theorists continue to question this 'concept of variability' and usefulness of referencing artist intent. Salvador Muñoz Viñas (2020) reconsiders the usefulness of recording the artist intent in his book *On the Ethics of Cultural Heritage Conservation* by acknowledging, in the process of conserving contemporary artworks, many aspects are subject to changing environments (museum policies) and stakeholders (the conservator) meaning 'the artistic phenomenon tends to be subject to a plurality of intents' (Ibid: 71). Agreeing with van Saaze and Wharton on open approaches in the understanding of artist intentions, Muñoz Viñas analyses the concept further by arguing that the artist intent should be recorded as 'historical curiosity' (Ibid: 77) which does not underestimate the values of the viewer(s), and future viewer(s), as the contemporary artwork changes with age, environments and often contexts.

'…the only reliable witness of the artist's intent is the work itself. Any opinion or memory about what the artist's intention was when he created the work remains just that – an opinion or a memory.'

(Muñoz Viñas 2020: 78).

Muñoz Viñas acknowledges material relationships are also important for meaningful and lasting cultural exchanges between the artwork and the user(s), certainly when engaging with modern materials that change over short time periods. The aforementioned conference proceedings on conserving and interpreting living matter by Roth and Rivenc (2022) reiterate the importance of acknowledging material relationships when conserving the characteristics of postmodern materials (see Section 2.6). Whereby degradation, intended and not intended, is considered an integral part of the artist intent in the 'advent of bioart' (Ibid: x). The complexities of applying ethics, theory and practice and artists intentions are discussed. Darío Meléndez's paper (2022: 226-230), a Mexican artist, describes his own perceptions of degradation as being an expressive form for some artists because 'the atmosphere of deterioration' is an important part of the aesthetic performance and symbolic aspect of experiencing and comprehending his installations (Ibid: 227). Van Saaze, Wharton, Muñoz Viñas and, more recently, Roth and Rivenc, highlight these aspects of subjectivity, pragmatism and transient applicability of artist intent as documentary evidence in the conservation of contemporary artworks with (post)modern materials and technologies.

2.9.3 Developing the concept of 'Designer Intent'

'Designer Intent' has only recently been acknowledged as a contributory factor to fashion conservation theory and practice (Tonkin 2017: 152-167; Scaturro 2017). Scaturro (2017: 6) relates to the initial moment fashion is created as the 'goal' conservators should aim for when capturing original 'Designer Intent'. Recapturing the originality of fashion artefacts for exhibitions is key to interpreting the original impact and therefore, 'Designer Intent'. The aesthetic experience of the museum user(s) is reported as being paramount in the interpretation and conservation of fashion (Ibid), however, with certain exceptions. This research has found that the conceptual experience of the designer is neither recorded nor considered as an aspect of fashion conservation. The aesthetic experiences and material relationships of museum users have not been fully explored either. Ingrid Loschek in her book *When Clothes become Fashion* (2009: 87-130) explains that the 'aesthetic, functional and communicative criteria' of fashion can often signal the quality of the design. Similarly, the approaches of documenting the artist intent taken by van Saaze, Wharton and Muñoz Viñas (see Section 2.9.2), Loschek relates to the transient aspects of 'Designer Intent' whereby the 'permanent freshness and innovation' of design is part of the designer's illusion and each design provides a different 'corporeal' feeling.

Townsend et al. (2020) expand upon the idea of how 'Designer Intent' can include experimental methods to influence design processes, 'Designers/makers are adapting their existing toolkits and mindsets towards hybrid approaches to the corporeal' (Ibid: 3). In addition, museums are steering towards conserving and interpreting these 'new dialogues and perspectives' that embrace different approaches by designers (Ibid). Patrizia Calefato (2019) understands the role of the fashion museum as a place of conservation, giving special status to fashion objects and the disengagement from the body (Ibid: 38-39) in the reengaging in cultural translation 'to be intended both metaphorically and literally, as an inter-cultural relationship' (Ibid: 44). Contemporary conservation theory accepts these human relationships as aspects of translation as 'non-material circumstances concerning the work are much more important for the long-term preservation of an object' Muñoz Viñas (2020: 79). These views contrast with aiming for the snapshot of visual pristineness as Scaturro specifies as honouring 'Designer Intent'. Literature shows fashion conservation would benefit from exploring holistic approaches to conserving aesthetic experiences and material relationships with modern fashion, by exploring the concept of 'Designer Intent' to create better understandings of cultural fashion engagement within a museum context.

These approaches in understanding designers and the artefacts they create suggest that 'Designer Intent' occurs in the conceptual stage of the design process. The end product, left behind to conserve, is the result of many different actors 'the designer, maker, wearer, exhibitor, social

influences and changing custodianship, as well as differences in materials and manufacture' (Tonkin 2017: 158). That is, what is presented for conservation and exhibition does not necessarily fully represent what the designer solely intended. In terms of modern materials, this is a pressure point for conserving modern fashion as they often degrade due to instabilities in the material properties thus making original fashion artefacts a short-lived acquisition in many museums holding contemporary fashion collections (Lovett and Eastop 2004: 103; Tonkin 2017: 152-167; Verkens 2021). Recording 'Designer Intent' could therefore help in decision-making as to when these artefacts become unexhibitable and relocated to permanent storage or other circumstances. It could help create a more proactive approach to fashion conservation when considering new materials and technologies being used by postmodern designers, by including this new documentation in collection care systems generated by fashion conservators.

2.9.4 'Designer Intent' and postmodern materials

Inspired by Nature: Fabrics of the Future (Glenn and Morris 2019: 75-89), anticipates a future of collaborating with other specialists to conserve 'a new era of textile technology' (Ibid: 86). The paper addresses the potential of conserving postmodern materials like smart textiles, Veja™ rubber and food waste fibres prompting the question of 'how can documenting 'Designer Intent' help conserve postmodern materials and fashion that pose a high risk of material change and loss due to unfamiliar materials properties?'

Publications on the challenges in conserving modern materials found in textiles and fashion artefacts started to emerge in the 1990s (Kerr and Batcheller 1991: 189-206; Stoughton-Harris 1991: 214-221; Timar-Balazsy and Eastop 1998: 139-143), highlighting the pressures of caring for dress artefacts collected in the late 20th century. The conflict modern, and the new era of postmodern materials, pose curators, conservators and conservation scientists who collect and care for contemporary fashion starts to warrant further discussion due to the unstable nature of many plastic materials found in fashion artefacts. For example, CN, CA, rubber, polyurethane (PU) and polyvinyl chloride (PVC) have been scientifically analysed and conserved to help inform display, storage, handling and interpretation (Paulocik and Williams 2002: 77-89; Morris and Keneghan 2011: 111-114; Glenn 2015: 238-244; Tonkin 2019: 69-77); the deterioration and conservation of the various applications of PU on ready-to-wear fashion whilst evaluating the authenticity of conserving these short-lived modern materials have raised awareness on the role of a dress archive (Lovett and Eastop 2004: 100-105; de Sá et al 2014: 193-203). In addition, the impact of collecting and conserving digital fashion that will require different ways of documenting and archiving (Tonkin and Scaturro 2017: 157-167). Pritchard and Smith (2008: 132-137) discuss this conflict within the context of the V&A's collecting policy as it stood in the mid-2000s. '…if

collections are to stay representative, they must contain the contemporary, and we must understand the risks' (Ibid: 136).

Perpetuity is important to the fashion curator and forms part of a conservator's focus who helps develop a conservation strategy to justify investment in the pieces coming into the collection. This pose challenges due to the emergence of innovative materials used by designers that are often unstable and degradable. Under the heading of 'Future collecting ambitions' (point 4.4 for collecting fashion) in the current *V&A's Collection Development Policy* (V&A 2019) it states '…aware[ness] of the need to balance the demands of display with conservation requirement[s]…' (Ibid: 21). Conservation has become more significant in the collection remit for contemporary fashion curators to help their guide choices. Poor condition which challenges conservation and storage issues can often be the reason a designer piece made from new material and technologies will not be collected (Pritchard and Smith 2008: 137). This creates a problem of representing fashion designers who contribute to modern and postmodern design history because material stability seems to be key to collecting and interpreting fashion. Calefato (2019: 34) mentions how the 'seasonal quality of fashion' determined by Autumn/Winter (A/W) and Spring/Summer (S/S) often influences cultural practices of consumers. Curators, too, follow these cultural practices that are committed to the 'production, exchange and consumption' (Ibid) of fashion that often includes the use of (post)modern materials. These materials are an important part of fashion history, they are part of the seasonal context of the work of designers, by not collecting them due to material instability, may underestimate and ultimately lose insight into a designer's choice in (post)modern materials and innovative technology.

2.9.5 'Designer Intent' and fashion conservation

Contributions in conservation literature that support fashion conservation have mostly been object-focused and material-led as an approach to identifying and suggesting methods for conserving (post)modern fashion artefacts (see Section 2.9.4). As previously mentioned in Section 2.8.2, Glenn (2015) provides an insight into the ambitions of working with the designer, Yohji Yamamoto and his team, whilst working on his retrospective at the V&A (2011) (see Section 6.3.2). The wish of the designer was to 'have a strong sense of feeling physically close to the outfits' (Ibid: 239) which meant no plinths or barriers were desired by the designer and his team. The ensembles were to be displayed with large fluorescent lights that exceeded accepted standards of the V&A. The response of the conservators and exhibition team was to increase security and create a 'memorandum of understanding' (Ibid: 241) of the anticipated damage likely to occur by honouring 'Designer Intent' for visitors to be able to interact with the designs on display. Accelerated damage of a piece appliquéd with PVC from Yamamoto's A/W 1995-6 collection, due to the high light levels acting as a catalyst causing degradation, was removed and

replaced as a result of pre-arrangements made with the lead conservators and Yamamoto's team. 'Designer Intent' in this case exceeded what could be achieved by the parameters of interpretation and conservation set out by the V&A conflicting with the desire of Yamamoto to engage the visitors through his work, demonstrating, as Muñoz Viñas (2020: 79) states, 'the viewer as the provider of value'. This practical example highlights how (post)modern materials, and the process of degradation, can create a conflict of interests between honouring 'Designer Intent' and the aims of the conservator in the agreement to exhibit and accommodate the designer intentions (see Sections 5.2, 5.3 and 5.4 for discussions on effects of degradation).

Morris and Keneghan (2011: 111-117) discuss the analysis and conservation of a Paco Rabanne disk dress c.1967 and a female boot designed by Pierre Cardin c.1967 in preparation for *The Cold War Fashion* exhibition at the V&A (2008). Historical origins of manufacture and original construction are the preferred routes taken to inform conservation practice. 'Designer Intent' is considered when examining the ephemeral aspects of the Cardin boot heel tip disintegrating due to the unstable properties of the polyester PU of which it is made (Ibid: 115). Removal and replacement were considerations and disregarded due to the direct link to the designer who donated the piece and the likelihood the tip was never replaced. The boot is now in the context as a 'museum object' and the decision was made to keep all components to maintain the overall design and 'Designer Intent' of the object (Ibid). Here original intent is understood through keeping, cleaning and conserving original components and making them look optimal to match aesthetic assumptions visible via publications, museum documentation and other forms of online media. The intent of the designer is left to the rationale of the conservator and curator who consider the 'information that embodies the maker's intentions' (Ibid: 113) but do not explain how they document this embedded information. The embodiment of the intention of the designer is part of the act of conservation practice which is reliant on what is expected performance-wise of the artefact, for example, flexibility and arrangement.

2.9.6 Brief discussion on documenting 'Designer Intent'

These two papers provide similarities and differences in understanding 'Designer Intent' through a conservation perspective. Working with a living designer and a fashion legacy has different impacts on the survival of (post)modern materials in fashion artefacts. The ambition of a living designer may have an immediate impact on the stability and aesthetic appeal of postmodern materials when contextualised in a museum environment. Glenn's (2015) paper reveals the designer does not appreciate the impact their visionary positioning has on the longevity of their creations, impacting the condition of postmodern materials. They expect them to last. Meaning it is important for the conservator and the curator to record their intentions about their work for longevity because it is not their creative priority to reflect on their own practice. Morris and

Keneghan's (2011) paper highlight the absence of a designer and the importance of considering the 'maker's intent'. To a certain degree, this is left to speculation by the conservator and curator of how the designer would 'feel' about what is the appropriate treatment and interpretation of the fashion artefact. This can create various practical solutions on stability and interpretation of modern fashion artefacts which may result in 'Designer Intent' being indiscernible in the future due to the use of secondary sources and reinterpretation from other actors.

2.10 Material agency

Reviewing material agency as an aspect of 'Designer Intent' is important to support ideas of material relationships being part of conserving fashion history. Ivan Gaskell's (2020: n.p.) paper, *Introduction: why history and material culture?* explains the importance of knowledge transfer in conjunction or beyond that of the written word. He recognises the openness and inclusivity of material engagement to learn about 'the experiences, choices and creations of individuals whose lives are unrecorded, or offer additional insights about prominent people that may not make it into the written historical record' (Ibid: n.p.). This recognition highlights the agency of material objects as being part of the way human relationships are developed in the world. Daniel Miller (2005: 34) expresses this mediation between materials and humans as '…materiality both internally, as with the mind, and externally, as with the clothed body, forces us to acknowledge the centrality of materiality itself to the constitution of humanity.' In this sense, material agency has no marginalisation, boundaries or prominences between persons and their environments.

In acknowledging and examining cognition and materiality as aspects of understanding artefacts (Küchler 2005: 226) supports the notion of 'Designer Intent' as important documentary evidence that records a designer's stimulation of ideas and therefore, the shaping, and subsequent materialisation, of their knowledge. These ideas acknowledge an immaterial palette of the designer which refers to the different sensual, affective and emotional aspects of material engagement through experiencing and appreciating aesthetic and tactile qualities of materials (Malafouris 2013: 85). Recent work continues to explore the unfixed nature of material agency as exemplified through the work of Lambros Malafouris (2013) (see Sections 2.10.2 and 2.10.13). He explains, 'The artefact is not a piece of inert matter and that you act upon, but something active with which you engage and interact' (Ibid: 149). Malafouris supports the notion of 'agency and intentionality' may not be hereditary aspects of artefacts or humans, they are instead emergent properties of material engagement, where values are not exclusive to the artefact and designer but include other agents and actors. For example, climate change and environmental safety demonstrate a non-human agency that is encouraging different types of 'co-production of new material realities' (Mukerji 2015: 1, 7).

2.10.1 Theoretical frameworks

Following the previous section on material agency, this section provides a brief literature review of the nexus of the MET and aspects of postphenomenology as tools to formulate and consider the role of 'Designer Intent' and degradation. A potential MCT is reviewed in connection to the MET and postphenomenology, in addition to influences through the approach of the author whilst conserving the Wilderness Embodied Bird Dress, c. 2015, designed by Iris van Herpen, as an example of the conservation of postmodern materials and fashion.

2.10.2 Introducing Material Engagement Theory

Lambros Malafouris' (2013) *How Things Shape the Mind: A Theory of Material Engagement* has helped to influence this research as a conceptual apparatus. Referred to as Material Engagement Theory (MET) (Renfew et al. 2004: 23), Malafouris explains MET as an 'integrated archaeological perspective concerned with the interactions through time between cognition and material culture' (Malafouris 2013: 35). It identifies a step towards rationalising a fluidity and continuous transaction between minds, bodies and things. MET is a complex framework because of the integration of embedded cognition and material agency. Malafouris (2013) argues:

'…by knowing what things are, and how they were made what they are, you gain an understanding about what minds are and how they become what they are, and vice versa.'
(Malafouris 2013: 9)

Malafouris (2013) attempts to depart from conventional theoretical thinking about the mind to help develop a new relational ontological foundation (Ibid: 35). Relational ontology is the philosophical position that distinguishes subject from subject, subject from object, or object from object is mutual relation rather than substance (Schaab 2013). MET takes the translation, 'transformative power of things', of artefacts beyond the dimensions of biographical descriptions of their life histories by working at a phenomenological and scientific cognitive level as a way of establishing relevant cultural engagement with artefacts (Malafouris 2013: 44). This approach helps shift the paradigm of object-based analysis from the notions of fixed, isolated categories to more fluid interactions and relational transactions between the examiner, viewer or user and the thing, the artefact, and this is what Malafouris terms as material engagement (Malafouris 2018a: 767-8). The nexus of MET includes the extended mind, the enactive sign and material agency (see Figure 12).

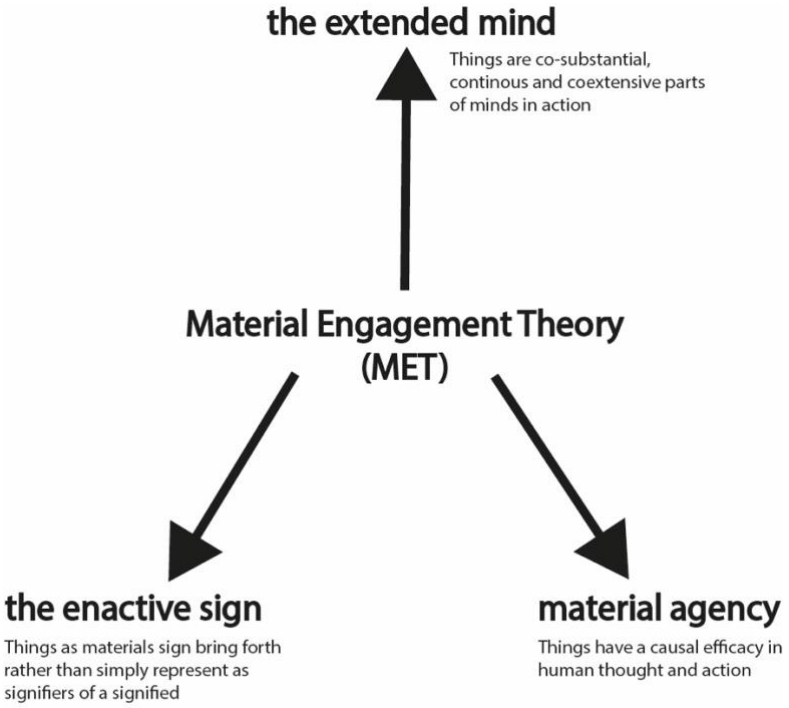


Figure 12. Interpretation of the nexus of Material Engagement Theory. Malafouris, L., 2018. Bringing things to mind. *The Oxford Handbook of 4E Cognition*. pp. 757. Image: Adapted by Leanne Tonkin. 2019.

2.10.3 Material Engagement Theory and postphenomenology

Malafouris (2013) critiques the three main theories ('the extended mind', 'the enactive sign' and 'material agency') which he combines to centrally position MET. This ontological framework combines a phenomenological and embodied cognitive science enquiry. The theoretical framework becomes, like human cognition, a more active language taking it beyond the passive existence in which a museum artefact often resides. Section 3.7 examines the application of MET in combination with postphenomenology, a progression of phenomenology that considers the rise of technology during the late 20th century, introduced by Don Ihde (1995), as the selected mixed methodology approach applied in this research to help analyse the conservation of postmodern fashion. This complex framework of MET, combined with postphenomenology, may help critically rationalise the concept of 'Designer Intent' which, as evidenced through the object studies, is currently restricted within the 'physical persistence' of the artefact (Malafouris 2018b: 8). Postphenomenology supports the consideration of postmodern materials, where technology in terms of the relations between human beings and technological artefacts are examination (Verbeek 2016: 190) (see Section 8.6.2). Artefacts traverse changing spatial and temporal moments with varying experimental interactions accumulating biographies which changes their energies and significance. The 'cognitive ecology' (Hutchins 2010: 705) acknowledges the web of mutual dependence amongst the elements of the cognitive ecosystem and refers to what happens 'in-between' the maker and the formation of material, this cannot be represented physically through an artefact. The MET helps support the value of 'Designer Intent' as documentation of why designers like to engage with modern materials, their properties, qualities,

giving insight as to why (post)modern materials provide such new modes of acting and thinking by the designer.

2.10.4 Material Engagement Theory and degradation

Degradation is a main concern for conservators, curators and, sometimes designers when it comes to contemporary fashions in museum archives. As evidenced by the Hybrid Holism dress, c. 2012 (reprinted 2016), designed by Iris van Herpen, degradation can occur quickly in postmodern materials (see Figure 13). This is a dilemma as it is unwanted by conservators due to lack of knowledge in treating newer materials and restricts creative curatorial practice as artefacts can no longer be exhibited. An interpretation of MET through its integration into the new MCT, proposed by this research (see Section 2.10.2 and Figure 10), offers different ways of understanding decay beyond the material aspects that conservators and curators tend to focus on. It will shift from the isolated and 'fixed' nature of degradation, that so often occurs in modern materials due to unstable properties, to a new understanding that leads to a new MCT related to postmodern materials used in contemporary fashion entering museums. Thus, giving an extended 'active' language about 'Designer Intent' and relationship with postmodern materials.

2.10.4.1 Material Engagement Theory in practice

Conserving modern materials often means engaging with your senses. The experience of the author in treating (post)modern materials can include feelings of being confused, anxious, unfamiliar and cautious, and these feelings are cumulative over time creating many layers of knowing, certainties and uncertainties. These feelings can constantly reconfigure themselves because they help provide channels of interaction whilst engaging with surfaces of materials. For example, the author treated the Bird Dress designed by Iris van Herpen for her Wilderness Embodied collection, A/W 2013-14 for the *Manus x Machina in an Age of Technology* (May-Sept 2016) exhibition. The dress was made from laser-cut Dragon Skin® silicone feathers developed by van Herpen and Cedric Laquieze and was treated with an anti-static gun and brush to reduce dirt and debris on the surface (see Figure 13). Testing the cleaning of the surface was a way of developing the author's mind, navigating with a tool (brush)-material (silicone) interaction to assess removal of dirt and cleanness (see Figure 14). This is viewed as the measure of success of a potential treatment. After treatment those previous feelings of anxiousness, uncertainty and unfamiliarity become realigned with a consciousness that the dirt may return because of the static behaviour of the silicone. This expectation by the author correlates with the MET which acknowledges continuity in 'the specific viewpoint that best enables you to perceive and understand the particularities of the phenomenon you investigate' (Malafouris 2013: 52). The returning dirt is part of the phenomenon of the silicone and, therefore part of the authenticity of

the material, continual cleaning seemed idealistic, impractical and stressful, conflicting with the senses of the author and the natural phenomena of the silicone.

Figure 13. The author cleaning silicone feathers with an anti-static gun. Bird dress by Iris van Herpen, Wilderness Embodied collection, c. A/W 2013-14. Purchase, Friends of The Costume Institute Gifts, 2015. (2016.14). Image: ©Glenn Petersen. The Metropolitan Museum, 2016.

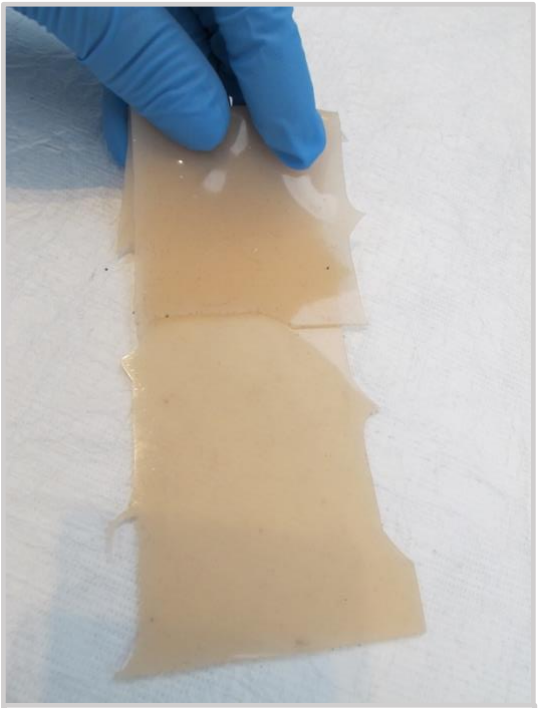


Figure 14. Testing anti-static cleaning on a swatch of silicone. The upper area is treated, and the lower area is untreated. Image: ©Leanne Tonkin. The Metropolitan Museum of Art. 2016.

2.11 Gap in knowledge

This review reveals an urgent need and, therefore, justification for research into the concept of 'Designer Intent' as a tool to conserve (post)modern materials and fashion artefacts. The characteristics and subsequent material agency of postmodern materials are not fully appreciated within a cultural heritage context; thus, they are at risk of being eliminated from fashion history. There is no clear conservation framework that supports (post)modern fashion artefacts and their material degradation and/or trajectories, whereby the concept of 'Designer Intent', as a methodology, can guide the conservation and collecting of these aspects of archival collection care. This omission means there is a lack of theory in fashion conservation increasing the risk of having no documentary evidence of how conceptually the designer works and why working with (post)modern materials is important to them. The consequences of having no supportive documentation systems, including that of different ways to study objects that consider the different characteristics of postmodern materials, will result in material authenticities that are associated with short lifetimes and degradation will not completely enter standardised archives, often resulting in 'Designer Intent' not being fully understood and subject to intuitional and professional biases.

In turn, this review heightens the usefulness of practice-led research (i. e. object analysis) and theoretical practice (i. e. MET and postphenomenology) to examine and inform different approaches to fashion conservation to capture the legacy of the postmodern/postgrowth designer. It is these designers, who are perceived to 'shatter the notion that high fashion was of fine materials and good tailoring' (Geczy and Karaminas 2019: 4), that challenge the traditional practices in evaluating and conserving the condition of (modern) materials and fashion. In addition, designers and design researchers exploring E-textiles introduce a different generational approach to fashion design where there is 'no predetermined hierarchy among material qualities' (van Dongen 2019 et al: 8) as part of 'Designer Intent'. This is because the fashion artefact and its technology are perceived as a mediation between the wearer and the environment. To conserve this mediation, this literature review has identified a lack in approaches to better understanding technological documentation will be required to enable fashion and textiles to be part of 'E-history'.

The review identifies the value in material relationships to be an important aspect to examine because these methods and theoretical developments accept the processes of personal material engagement, leading to transient and multiple interactions of recording and using artist intentions (see Section 2.9.1). This new direction in conserving artworks sees an opportunity to develop 'Designer Intent' as an additional tool that supports design conservation of (post)modern fashion artefacts that incorporate new media, like E-textiles and biodegradable materials. Ontological approaches to object study may be beneficial to examine the value of other stakeholders that are integral to the existence of the fashion artefact, which includes engagement with contemporary issues and different routes to assessments, not limited to technical study (Henderson 2020: 6). By following the MET and postphenomenology as methodology will introduce a different approach to object study (see Section 2.10.1), as well as contributing towards the development of a Material Conservation Theory (MCT). This scenario points to a new documentation system that encourages a less object-based approach for 21st-century conservation practice—one that observes and records environmental influences as part of postmodern and postgrowth cultural heritage. Moving towards continual and collaborative relationships with designers, their teams and their practices will enable the inclusion of different narratives and perspectives to be recorded and conserved. This approach will ensure aspects of authenticity, 'Designer Intent' and community and environment-based elements are continually valued as transferrable and shared assets in objects.

2.12 Summary of key points

- No conservation documentation system records 21st-century postmodern and postgrowth fashion history, therefore, research is required to discover solutions.
- 'Designer Intent' is not a developed conservation methodology that supports the collecting, archiving and exhibition of postmodern/postgrowth fashion design history.
- The lack in conservation theory and practice in postmodern fashion conservation increases the risk of losing postmodern fashion history, a part of design history.
- Ontological approaches to object study can explain and justify the legacies of postmodern/postgrowth designers and the materials in which they engage.

Chapter 3.0 Research methodologies

3.1 Introduction

The chapter begins introducing the reader to the methods and methodologies utilised to examine the hypothesis of this thesis. The author reviews and compares different methodological approaches with a rationale for the selection of the qualitative multimethod approach used for this research. Selecting this approach was considered suitable to gain various in-depth insights, opinions and experiences of specialists and designers, their perceptions of contemporary fashion artefacts and to generate new ideas in understanding and recording 'Designer Intent'. The different phases of the multimethod approach are presented and explained, encompassing qualitative semi-structured interviews, object-based analysis and archival research, and theoretical principles of Constructivist Grounded Theory (Charmaz 2014), Material Engagement Theory (Malafouris 2013) and postphenomenology (Ihde 1995). Employing these methods and theories helped to collect and examine specific information and evidence taken from experts and designers within the field of contemporary fashion history and design; when combined with fashion archives and objects helped inform and, subsequently, analyse the concept (and relevance) of 'Designer Intent'. A list of the professional participants who agreed to be interviewed is included equating to a wide representation of fashion collections/museums, independent practitioners and conceptual designers in the UK and EU. Their expertise, varied perspectives and approaches to the agency of material-objects in contemporary fashion helped explore the usefulness in the understanding and recording 'Designer Intent'. The development of the questions for each set of participants is presented (see Appendices 4-6 for transcripts of interview questions). This is followed by documentation of the stages of thematic data analysis, employed to survey and identify common themes from the interview transcripts (see Appendix 3 for sample interview transcript). The process of analytical coding using Constructivist Grounded Theory as a methodology to examine and direct the emerging themes is explained and illustrated, leading onto the introduction of two emergent theoretical frameworks: 'understanding authenticity' and '(un)intended degradation' informing a third, underlying theme of 'rethinking longevity'.

3.2 Methods and Methodologies

The focus of this work is to examine the meanings and values of the designer's processes to understand critical elements about the artefact and its interpretation through its conservation. This hypothesis led to the main research question: How can 'Designer Intent' be understood, captured and conserved alongside an archived fashion artefact? Investigating this phenomenon may support the field of fashion conservation when working with (post)modern materials and fashion artefacts that often deteriorate with age in short time periods, contrary to what is traditionally expected for an artefact entering a museum archive. By examining 'Designer Intent'

could develop diverse perspectives and approaches to the documentation of the less tangible, immaterial aspects of postmodern and postgrowth fashion where the physicality of the artefact no longer exists. Thus, leading onto further questions: What kind of information is required to conserve 'Designer Intent' once the original materiality of the object no longer exists, whereby 'material longevity' is not intended? And: What kind of information is required to conserve 'Designer Intent' when the original material condition of a fashion artefact has changed?

The researcher selected multiple qualitative methods by utilising semi-structured interviews, object analysis and archival research as ways to collect specialist responses and collection of data to scope the concept of 'Designer Intent'. A multiple qualitative methodological approach was employed by using Constructivist Grounded Theory (see section 3.2.2) to analysis the professional interviews which determined the main thematic areas of the research; these themes were further analysed utilising the MET and postphenomenology (see sections 3.2.3 and 3.2.4). These methods and methodologies support qualitative research with a multimethod focus which involves an interpretive, naturalistic approach to its subject matters. Thus, considered appropriate to make sense of, interpret 'Designer Intent' that involves the meanings interviewees and objects bring to a new conservation methodology.

3.2.1 Qualitative multimethod approach

The main considerations when analysing data for research purposes often follow a qualitative, quantitative or mixed methods approach, the latter being 'the intentional integration of quantitative and qualitative research approaches to best address a research problem' (Plano and Ivankova 2016: 3). To clarify the differences of these approaches, quantitative research is concerned with 'objective facts' (Silverman 2021: 3) that often refer to 'numerical translation, transformation or conversion of qualitative data' (Sandelowski et al 2009: 208). In contrast, qualitative research claims to pursue 'subjective meanings' that takes into consideration human experiences by often utilising interviews and/or focus groups as methods to access people's minds. This approach places emphasis on the empathetic skills of the researcher (Silverman 2021) and is somewhat different from the objective stance of quantitative research. Another common research strategy is to adopt a mixed methods approach whereby at least one qualitative and one quantitative method is used in the same research project or set of related projects (Hesse-Biber 2015: xxxix). Researchers may select a mixed methods stance to develop a fuller, more synergistic understanding than using just one approach (Ibid).

In contrast to the mixed methods approach where at least one quantitative and one qualitative method needs to be included, a multimethod approach integrates multiple qualitative approaches or multiple quantitative approaches without the necessity to mix these approaches, although, if

required they can be combined (Plano and Ivankova 2016: 3). It is somewhat different to that of a mixed methods strategy because it is not necessary to include one qualitative and one quantitative method but 'rather is open to the full variety of possible methodological combinations' (Hunter and Brewer 2015: 187). The researcher selected a multimethod approach to enable the synthesise of qualitative findings from interviews, object studies and archival research supported by a theoretical framework informed by Grounded Theory (Charmaz 2014); Charmaz and Bryant 2021: 375), Material Engagement Theory (MET) (Malafouris 2013) the 'in-between' space of the mind and the maker and the postphenomenological emergence and impact of technologies on humans and the environment (Ihde 1995). All these theoretical foundations were considered suitable because they support qualitative research.

3.2.2 Applying Constructivist Grounded Theory

Constructivists Grounded Theory consist of systematic and flexible guidelines for collecting and analysing qualitative data to construct theories from the data itself (Charmaz 2014: 1). The methodological basis for analysing the semi-structured interviews (see Section 3.4.1) was the Grounded Theory, specifically Constructivist Grounded Theory as introduced by Kathy Charmaz (2014: 239-241) in her book *Constructing Grounded Theory* (see Table 3 for summary).

3.2.3 Applying Material Engagement Theory

The MET was developed by Lambros Malafouris (2013) in his book *How Things Shape the Mind: A Theory of Material Engagement* which aimed to reaffirm the challenge of the interaction between cognition and material culture by placing it upon a relational ontological foundation (see Section 9.2), meaning this philosophical approach recognises mutual relationships between material and the mind as a fundamental means of engaging with the world, 'then material culture is potentially co-extensive and consubstantial with mind' (Malafouris 2013: 77).

3.2.4 Applying postphenomenology

Postphenomenology is a progression of phenomenology, a philosophy founded by Edmund Husserl that examines the structures of experience and consciousness to identify with an experiential world (Giorgi and Giorgi 2003: 25-50). Postphenomenology includes and considers the rise of technology during the late 20th century, introduced by Don Ihde (1995) in his publication *Postphenomenology: Essays in the Postmodern Context,* which studies technology in terms of the relations between human beings and technological artefacts combined with empirical examination (Verbeek 2016: 190) (see Section 8.6.2).

3.3 Research Design

Figure 15 illustrates the chronological flow connecting all the methodological aspects used for this study. The segments illustrate the initial elements of the research from data collecting through to

the outcomes, the thesis and a suggested toolkit (see Section 9.4). This was devised during the analysis and write up of the fieldwork as a guide to documenting 'Designer Intent' in relation to the conceptual themes that emerged through the Constructivist Grounded Theory. The toolkit is introduced and further discussed in Section 5.2.4 and Chapters 4 to 8.

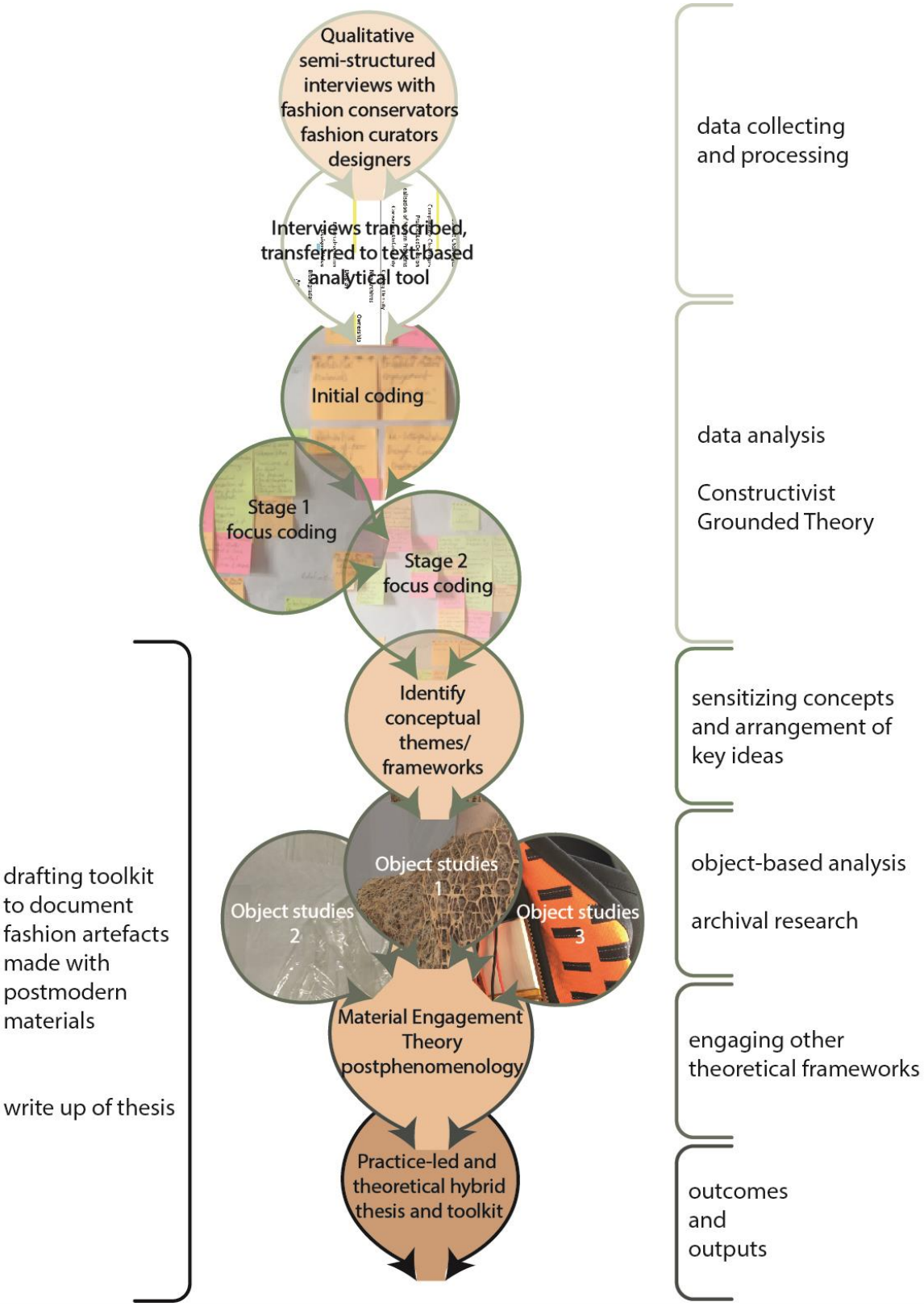


Figure 15. Diagram showing the chronological and fluidity of the segments of research completed to support the research aims and objectives of this thesis beginning with data collection and analyses of interviews, and object studies leading to findings informing the thesis and toolkit.

3.4 Interviews, object studies and archival research

The following section describes the three qualitative methods used: qualitative semi-structured interviews, object-based analysis and archival research, their justification and how they were developed and applied to this research.

3.4.1 Qualitative semi-structured interviews

Semi-structured interviews, as with qualitative research in general, are 'designed to be cumulative and iterative' (Galletta 2013: 72). These types of interviews were employed to one set of fashion conservators and one set of fashion curators who are responsible for the collection care of contemporary fashion history. A similar approach was applied when interviewing designers to gain an insight into their perspectives as creative professionals creating a third and relevant dimension to the data collection. First-hand accounts from the professionals generated from the interviews offered intertwined sets of findings which revealed evidence of the phenomena being examined for this thesis. For example, developing relationships between collection care professionals and designers within a heritage context, practice-led experiences between conservators and designers and environmental influences in which the participants are based. All these aspects contribute to making sense of their experiences (Miller and Glassner 2021: 65) and provided important insights for theoretical understanding when considering conserving 'Designer Intent' and postmodern materials and fashion artefacts.

For this research, the scope of collection care professionals was considered significant because of the various institutional perspectives in caring for contemporary fashion collections which contributed to the originality of this work (see Section 3.4.1.1). Emphasising the important use of qualitative semi-structured interviews in enabling access to professional lived experiences and for the researcher to pursue questions from 'extant theory' (Galletta 2013) directly related to fashion conservation, interpretation and practice. The interviews were developed by specific weighting of the questions that interlinked with the criteria of conservation and curatorial roles, in the collection care of artefacts in museums (see Section 3.4.1.3 and Table 2). And that of the designers' creative process when materialising ideas (see Appendix 2 for transcripts). This type of focus provided opportunities for reciprocity between the author and the participants and for reflexivity in terms of dilemmas encountered during the research project, for example, applying methodologies, theoretical elements when re-examining data collection and analysis (Ibid: 117).

3.4.1.1 Selection of Interviewees

A series of semi-structured qualitative research interviews were undertaken between June and November 2019 with fashion collection care professionals: four conceptual fashion designers,

four predominant textile conservation specialists, a conservation scientist, and five fashion curators with direct links to large contemporary fashion and design collections in museums. For example, textile conservators Sarah Glenn Accredited Conservation-Restorer (ACR) and Roisin Morris ACR, were presented with an opportunity to work with newly developed materials that were unfamiliar to their practice whilst leading the conservation for the *Fashioned from Nature* exhibition, V&A, (April 2018 – Jan 2019) (Glenn and Morris 2019: 75). Fashion curators selected had extensive experience of working with contemporary, Avant-guard fashion collections that included the designer use of postmodern materials. Fashion designers who preference modern materials as part of their creative process, for example Christopher Kane, Gareth Pugh and Walter van Beirendonck were approached to interview. After an extensive search three designers agreed to be interviewed and one responded in writing. The three sections below list the fashion collection care professionals and designers who were interviewed for the research.

Textile, design and scientific conservators

- Kim Verkens, textile and fashion conservator, ModeMuseum (MoMu), Antwerp, Belgium.
- Netta Krumperman, coordinating conservator for the Department of Applied Arts and Design, Stedelijk Museum, Amsterdam, The Netherlands.
- Dr. Susana França de Sá, conservation scientist, Universidade NOVA de Lisboa, Lisbon, Portugal (see Appendix 3).
- Sarah Glenn ACR, Independent Practitioner in fashion conservator, London, UK (former-senior textile conservator, V&A, London, 2008-18).
- Roisin Morris ACR, senior textile conservator, V&A, London, UK.

Fashion curators

- Alexandre Samson, curator, Haute Couture and contemporary design, Palais Galleria, Paris, France.
- Edwina Ehrman, Independent dress historian and former senior curator, fashion and textiles, V&A, London, UK.
- Kaat Debo, director and chief curator, ModeMuseum (MoMu), Antwerp, Belgium.
- Oriole Cullen, head curator for modern fashion and textiles, V&A, London, UK.
- Elisabeth Murray, curator, modern fashion and textiles, V&A, London, UK

Fashion and accessory designers

- Stephen Jones OBE, leading British milliner, London, UK.
- Dr. Naomi Bailey-Cooper, designer and Institute of Positive Fashion postdoctoral research fellow, British Fashion Council.

- Jo Cope, conceptual fashion designer, East Midlands, UK.
- Vin + Omi, ECO design brand, London, UK.

3.4.1.2 Structure of interviews

Three sets of questions were devised for each set of interviewees (see Appendix 2). The questions followed a critical hermeneutical and phenomenological system using open-ended qualitative semi-structured questions (Kvale 1996: 11) to help gain an insight into the considerations and decision-making of textile conservators, fashion curators and designers. Questions were thematically clustered together to help gain specific aspects of their creative practice. The data collected from the questions helped lead to some of the corresponding object studies examined in this thesis to support the experiences of the participants and increase analysis of the main themes (see Section 3.2.3).

The main aim for conducting interviews with textile conservators was to gain an insight into their experiences of conserving textile and fashion objects made from innovative and non-traditional materials. Discussion often intertwined with the experience of the researcher who has extensive experience of conserving modern materials in textiles and fashion collections. The process of interviewing allowed discussion and opportunities for the researcher to record and discover methods of colleagues working with postmodern fashion artefacts and the challenges of this work. For example, discovering existing rationales around collecting non-traditional materials and the implications these processes have on archival ontologies. Whilst interviewing the textile conservators evidence suggested they were working within the autonomy of fashion curators. This observation led to inviting fashion curators to be interviewed to help to understand their considerations surrounding the process of acquiring and developing contemporary fashion collections whereby artefacts are made from postmodern materials. The aim in interviewing designers was to help probe their consciousness, experiential understanding of the physicality of materials relating to their creative practice. This format for interviewing designers could help record intangible elements from the designers that, otherwise, remain unreported, for example, feelings, visual thinking and levels of satisfaction.

Identifying a lack of acknowledgment for conserving ‘Designer Intent’ and the practical, analytical experience of the researcher in conserving modern materials and fashion artefacts, as demonstrated in Chapters 1 and 2, helped to develop the sets of questions to ask textile conservators, fashion curators and designers. The following section provides a brief overview of the themes of the three sets of questions that were used to develop questions for the interviews.

3.4.1.3 Devising the interview questions

Table 2 shows the subheadings of three sets of thematic areas which formed the structure of the questions to help collect different, specialist data for analysis. The interviews took place though several formats, in-person, over the telephone and via conference call. The themes were developed simultaneously by the researcher to help intertwine common and contrasting areas of practice between textile conservators, fashion curators and designers. The weighting of the questions was based on the broad criteria that each professional role undertakes whilst working with artefacts. The textile conservator section is based on the author's practical experience in recording fashion artefacts, including those made with modern materials at The Costume Institute (The Costume Institute 2017) and experiences in other museums. Elements such as, condition assessment, signs of degradation and specific environmental and storage requirements are commonly examined when assessing objects for display and/or loan. The fashion curators' section was devised around the criteria of a curators' role, for example, collecting, care and documentation of an artefact and sharing knowledge with the public and/or peers through academia or exhibitions (George 2015: 10). The questions for designers stemmed from the author's own conservation practice (see Section 3.4.1.3) together with the literature review that revealed the multi- and transdisciplinary approaches of designers during critical making and mediation of human experiences in practice that manifests materiality and immateriality around the contemporary body (van Dongen and Toussaint 2020: 113; Townsend et al. 2020: 1).

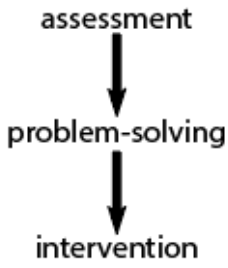
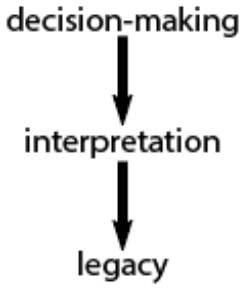
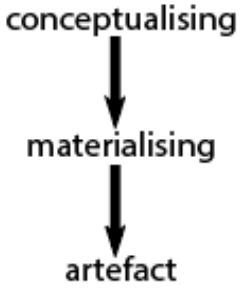
Subsections of questions	Weighting of questions
Textile conservators	
Future interpretation Uncertainness Identifying challenges Documentation Treating	
Fashion curators	
Acquisition process and justification [for short-term life span of artefacts] Collection development [fashions made using postmodern materials] Fashion exhibitions and interpretation [materiality] Working with living designers Research	
Designers	
Materiality and concept Sensory elements Material relationships Material interaction (fit, movement, construction, form, colour, pattern, texture, look) Role of the wearer	

Table 2. Three sets of subthemes used to draft separate questions for fashion conservators, curators and designers. Image: ©Leanne Tonkin. 2021.

3.4.2 Object-based analysis

Object-based examination is an embedded part of fashion conservation practice. These professionals have specialist skills based on embodied knowledge of material engagement (Brooks 2000) that allows them to physically (and emotionally) assess an artefact by handling and viewing it. This interaction with objects enables the examiner to gather insights into distinctive technical and aesthetic details and qualities, including the impact of weight distribution. The regular practice of engaging with historical dress and accessories over time develops the fashion conservator's innate knowledge when considering the 'embodied and haptic qualities' of materials (Mida and Kim 2015: 22). Thus, fashion conservation becomes a practice-led based method for contributing to new knowledge in fashion history heritage. In addition, object specialists, for example conservators and curators, will assess condition, construction and collaborate with scientific experts to extend ideas, documentation and interpretation through the

physical existence of the artefact (Brooks 2000: 3). Traces of wear, alterations and hallmarking aids context, authentication and decision-making to inform conservation practice. In this thesis, object-based research is an embedded element, a source to examine the hypothesis of this work, whereby new research questions, notions and findings emerge (Kawamura 2020: 93). In support of the significance of object research, Edwina Ehrman, independent dress historian and former senior curator, fashion and textiles, Victoria and Albert Museums (V&A) explains the narratives that objects reveal:

> Occasionally, we do acquire pieces which are very interesting for research purposes, one (…) garment I acquired here [V&A] was a 19th century home-made maternity dress (…). And that was acquired solely as a research piece because it wasn't particularly well made but it was a very interesting example of somebody's *ingenuity* in the use of fabric and in using [what is normally regarded as] a very nice fabric for a very relative utilitarian purpose. So that was why we acquired it for research.
>
> Ehrman, independent dress historian. 2019

In this work, object study helped to evidence and test the hypothesis. The following list of object studies were selected and analysed for this research because they exemplified the three main themes that emerged from the analysis of the interviews (see Table 8). They increased the narrative and analysis in understanding and recording 'Designer Intent'.

- Object record 1: Duvet Coat by Maison Martin Margiela, A/W 1999-00 (See Section 5.2)
- Object study 2: Kaleidoscopic Perfectos Dress by ANREALAGE, S/S 2016 (see Section 5.3)
- Object study 3: Coat with Plain PU Cover by Raf Simons for Calvin Klein, A/W 2017 (see Section 5.4)
- Object study 4: Wild Rubber Dress by Vivienne Westwood and Andreas Kronthaler. c.2013 (see Section 7.2)
- Object study 5: 'ECCO'-Leather Dress by Iris van Herpen, S/S 2010 (see Section 7.3)
- Object study 6: Rootbound Dress #2 by Diana Scherer, 2017 (see Section 7.4).
- Object study 7 Conserving authenticity in digital fashion, Junya Watanabe Solar Powered Trench Coat, c.2016-17 (see Section 8.3).

- Object study 8 Conserving ‘permanent impermanence’ in digital fashion, 3D printed polyamide overlay suit by Karl Lagerfeld, House of Chanel, c.2015 (see Section 8.5).

3.4.3 Archival research

Archival research methods encompass a broad range of activities applied to facilitate the investigation of different types of documents, ephemera and other material artefacts (Ventresca and Mohr 2002: 805). The investigation of fashion artefacts is object-orientated providing a physical, emotive and sensual resource for conservators, curators and collection care professionals to engage. These archives are mostly not in the public domain making institutional Collection Management Systems (CMS) the professional portals for surveying, comparing and shortlisting objects for a particular use(s). This type of primary sourcing enables the generation of specific object lists creating historical and new linkages and categories that begin to materially characterise, develop a ‘fashionscape’ (Calefato 2020: 33) to make relevant lines of inquiry specific to research question(s). Thus, acknowledging ‘object methodologies’ (Almond 2020: 79) as a ‘fashion framework’ (Ibid: 81) when examining archival fashion artefacts.

The author conducted in-person surveying of objects at The Clothworkers’ Centre, V&A and design products and prototypes being examined and developed at Nottingham Trent University (NTU), Nottingham, in relation to the hypothesis of this thesis. This approach was complimented by surveying online fashion archives, including the following:

Europeana (650,000 fashion related objects) (Europeana 2022).
The Metropolitan Museum of Art Costume Institute Collection (35,000 costumes and accessories) (The Met 2022)
The Victoria and Albert Museum (75,000 textiles and fashion objects) (V&A 2022).

In addition, virtual consultations (see Section 3.6.1) and sharing of professional documentation were exchanged with professional staff at MoMu, Antwerp and Palais Galleria, Paris. This relational approach enabled the selection and deselection of fashion artefacts in identifying links between material types, conditions and dates, as well as, studying the work of the designer(s) and object histories. These considerations added to the exploration of themes that emerged from the Constructivist Grounded Theory of the interviews (see Section 3.5), whereby object dialogues emerged between the participants and the author to corroborate ideas, issues and professional practice. These discussions contributed to the author’s archival research and selection of some of the object studies based on shared or individual material engagements with fashion objects, often iconic pieces, that were considered as significant conservation and interpretive dilemmas linked to important moments of fashion history.

3.5 Examining the interviews using Constructivist Grounded Theory

The literature review for this work suggests, conserving 'Designer Intent' and postmodern materials and fashion artefacts has not yet been fully established as a methodology in conservation practice and theory. So, choosing Constructivist Grounded Theory, summarised in Table 3, was considered the most appropriate for analysing the interviews, as it is a qualitative method, best used to support theory-building and the research in its early stages (Ibid: 91; see Section 3.2.2). The 'constructivist approach treats research as a construction but acknowledges that it occurs under specific conditions' that may not be controlled or directed (Ibid: 13). Meaning it includes the position of the researcher as not being neutral because 'researchers must examine rather than erase how their privileges and preconceptions may shape the analysis' (Ibid). This idea takes into consideration the perspectives and practice of the interviewer (the author as a fashion conservator) being a contributory factor in the development of the analysis. A constructivist approach helped to use the interviews as tools to rigorously explore and verify experiences when caring for contemporary fashion history, creating new ideas about collection care and legitimation of the participants' professional role. It enabled emergent interactions in which social and cognitive connections evolved, as well as mutuality during interviewing. These engagements included object and material dialogues which later informed some object studies in this work to be considered for further analysis, therefore becoming products of the Constructivist Grounded Theory (see Sections 3.6.1).

Foundational assumptions
Assumes multiple realities. Assumes mutual construction of data through interaction. Assumes researcher constructs categories. Views representations of data as problematic, relativist, situational and partial. Assumes the observer's values, priorities, positions, and actions affect views.
Objectives
Views generalisations as partial, conditional and situated in time, space, positions, action and interactions. Aims for interpretive understanding of historically situated data. Specifies range of variation. Aims to create theory that has credibility, originality, resonance and usefulness.
Implications for data analysis
Acknowledges subjectivities throughout data analysis. Views co-constructed data as beginning the analytical direction. Engages in reflexivity throughout the research process. Seeks and (re)represents participants' views and voices as integral to the analysis.

Table 3. Constructivist grounded theory. Taken from Kathy Charmaz. 2014. *Constructing Grounded Theory*. 2nd edition. Los Angeles: SAGE, pp. 236. Image: ©Leanne Tonkin. 2021.

3.5.1 Timeline of coding the interviews

During the transcribing of the interviews the author was able to synthesis ideas. The following timeline explains the stages of coding following the Constructivist Ground Theory.

March-April 2020

- Initial coding.

Identifying provisional and comparative codes whilst scoping the texts of the transcripts. Each set of interviews were examined separately.

May-June 2020

- Focus coding stage 1.

Four to five themes were constructed using a series of related codes taken from the initial coding stage which directed emerging themes. And this was completed for each set of interviews.

July 2020

- Focused coding stage 2.

Categorising the codes incisively and comprehensively by bunching segments of themes together from each set of interviews. This process revealed key ideas, affirming and deepening the analysis which connected themes between each set of perspectives.

- Final stage of focused coding stage 2.

Evaluating all three perspectives by combining the outcomes from each set of interviews to clarify, substantiate and centralise emerging theories (see Section 3.5.5).

The final stage of utilising the Constructivist Grounded Theory was establishing theoretical themes by identifying subthemes and to further conceptualise the substantive ideas that emerged from stage 2 of focus coding (see Tables 4a-6b). These themes connected the three perspectives through theoretical sorting, coalescing and integrating of material embedded in the coding to enable interpretive definitions of emerging theories. Interpretations of these theories and leading ideas were written up to arrange and summarise the author's synthesising and theoretical codes to develop a theoretical framework (see Appendices 4-6) which substantiated the main argument of this thesis. Which is gaining an understanding of the benefits in conserving 'Designer Intent' as a methodology in capturing the history of postmodern materials and fashion artefacts. The arrangement of the thematic chapters (see Chapters 4-8) was developed from the written analytical reports. This approach enabled deeper examination of the theoretical frameworks by utilising the MET and postphenomenology, meaning the research employed a mixed epistemological methodology to examine the hypothesis of this research (see Section 3.7).

3.5.2 Initial coding

NVivo, a data analysis tool for text-based media (see Section 1.5) helped initial coding by separating and organising the data into categories which helped to unify ideas analytically whilst keeping in mind potential theoretical meanings (Charmaz 2014: 137). Figures 16 and 17 show the initial coding stages of the transcribed interviews and how the data was segmented and categorised from the interview transcripts.

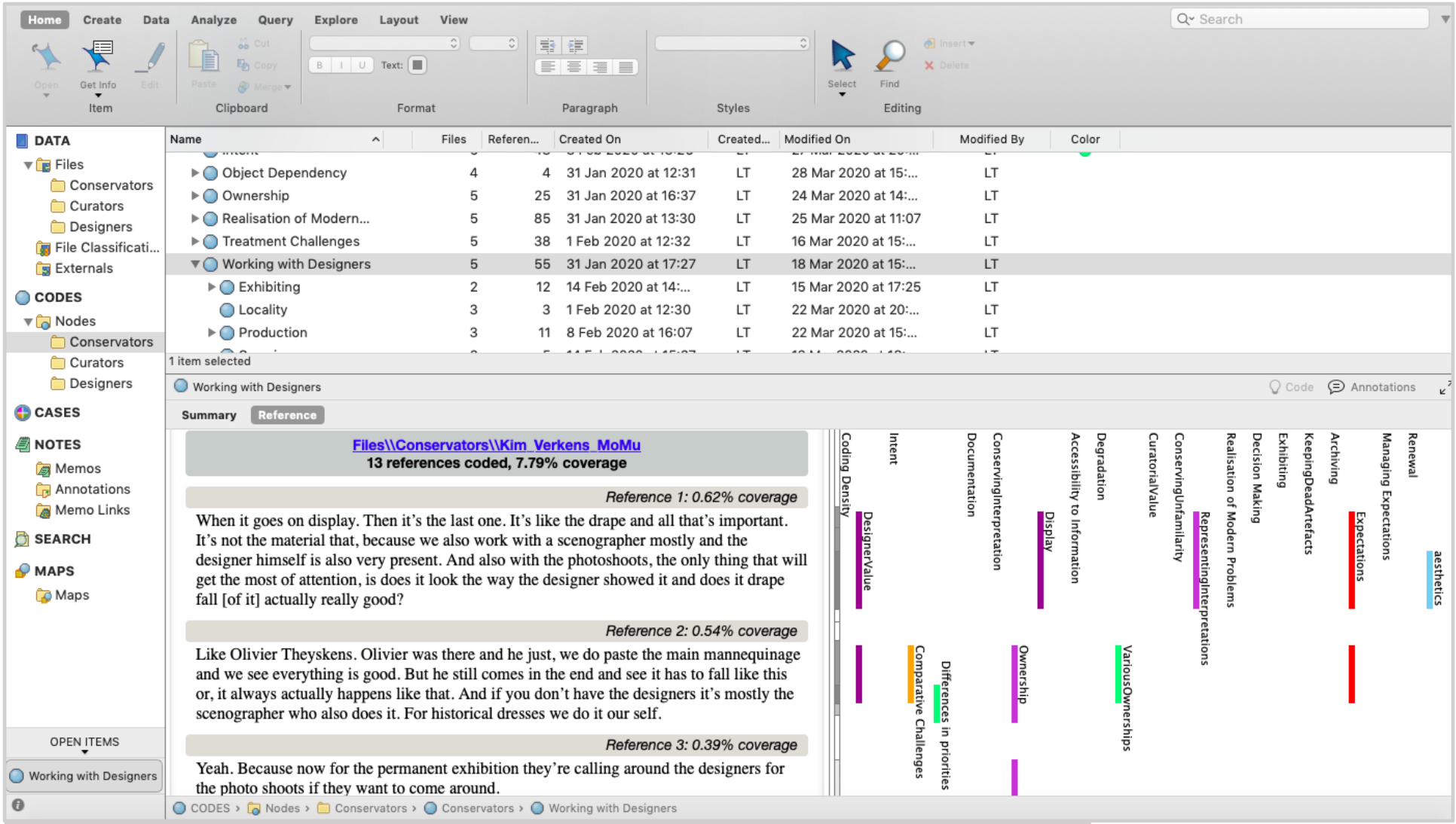


Figure 16. Initial coding of transcribed interviews of participants using NVivo, qualitative data analysis software. Image: ©Leanne Tonkin. 2020.

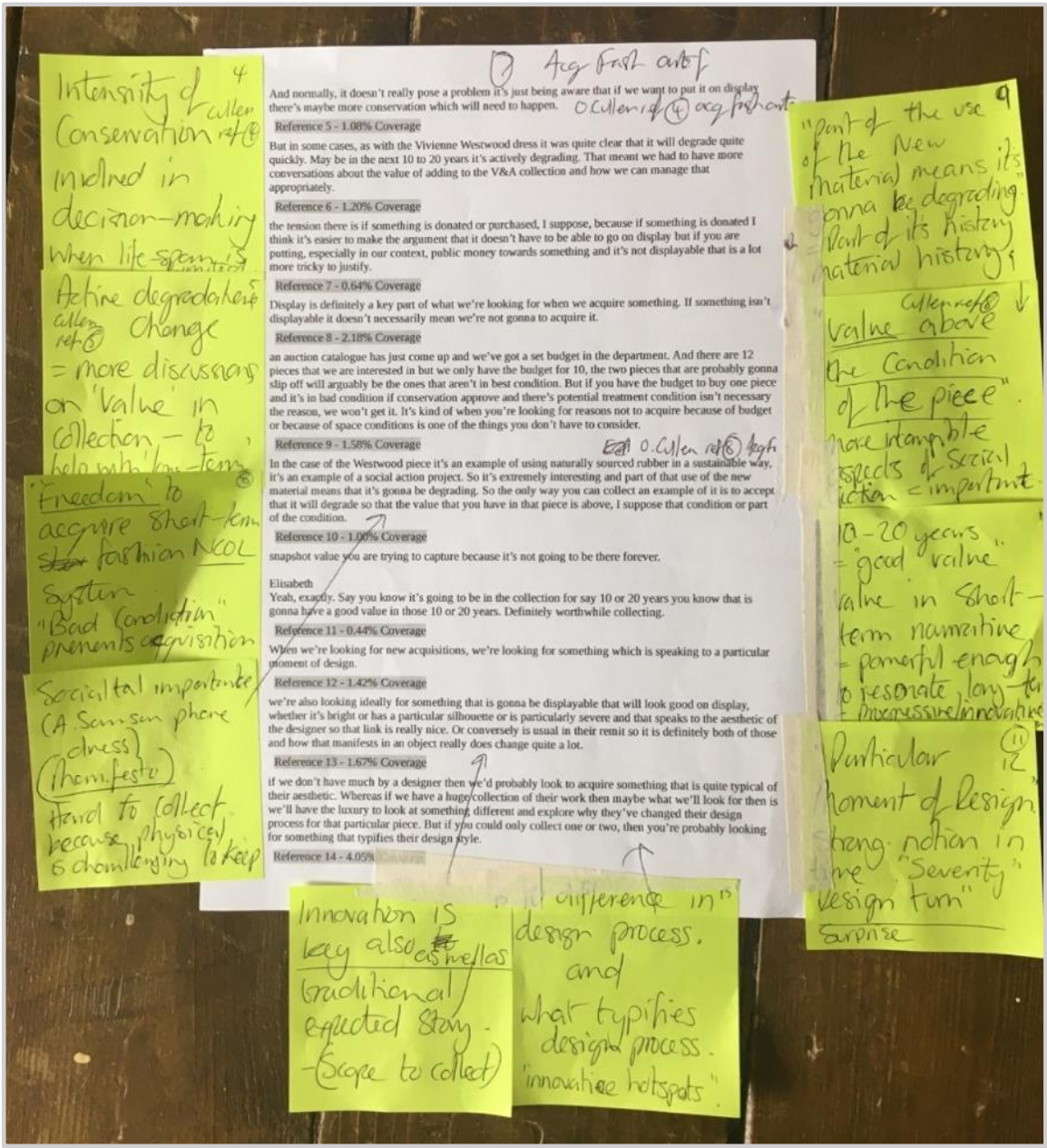


Figure 17. Example of analysing and cross-referencing initial coded categories from interview transcripts taken from interviews with fashion curators. Image: ©Leanne Tonkin. 2020.

3.5.3 Stage 1 focus coding

After completing the initial coding stage, the author left the computer to begin focus coding as recommended by Charmaz (2014: 138-161) to synthesize, analyse and conceptualise different and connecting segments of data. Post-it notes from the initial coding were rewritten for clarity and were used to reveal patterns, aid interaction with and cross-referencing between data to help construct thematic categories (see Figure 18). This stage helped to heighten, clarify and link ideas providing a sense of independence from initial data helping to conceptualise, raise awareness and sensitivity to new connections and underlying themes. Figure 18 shows focus coding stage 1 of this analysis of one set of interviews (textile conservators) and how the researcher formulated clusters of interconnected data and potential thematic areas through arranging and re-arranging

data and codes to form different sets of interlinking values. The strips of post-it notes represent clusters of data which enabled the researcher to identify the beginnings of emerging themes. The different colours of the post-it notes do not denote anything about the analysis. Stage 2 of focused coding was reanalysing by regrouping and recoding stage 1 of the focus codes which helped form conceptual themes from the interviews undertaken with textile conservators. This process was repeated for the curators and designers.

Figure 18. Stage 1 of focused coding initial nodes by clustering in stripes and linking initial concepts emerging from analysis of interviews with textile conservators. Image: ©Leanne Tonkin. 2020.

3.5.4 Stage 2 focus coding

For stage 2 of focus coding, the researcher cross-sectioned each strip of post-it notes by taking a selection of them from the top left to top right to further mobilise the data to increase and direct analysis of the emerging conceptual subthemes. This process was repeated until all data was re-grouped and re-sorted into main thematic areas. The researcher completed written reports of each set of interviews as a summary of the findings from the analysis (see Appendices 4-6). These reports aided the selection of fashion artefacts to exemplify and order discussion through thematic chapters of the fieldwork (see Section 1.6). Analysing the focussed codes from the textile conservators and fashion curators helped to develop and conceptualize the substantive themes that emerged from stages 1 and 2 of focussed coding. The same process was applied to the designers which added perspectives on critical thinking, material selection and influences. Tables 4a to 6b summarises the outcomes from stage 2 of focus coding and the identification of theoretical themes and subthemes.

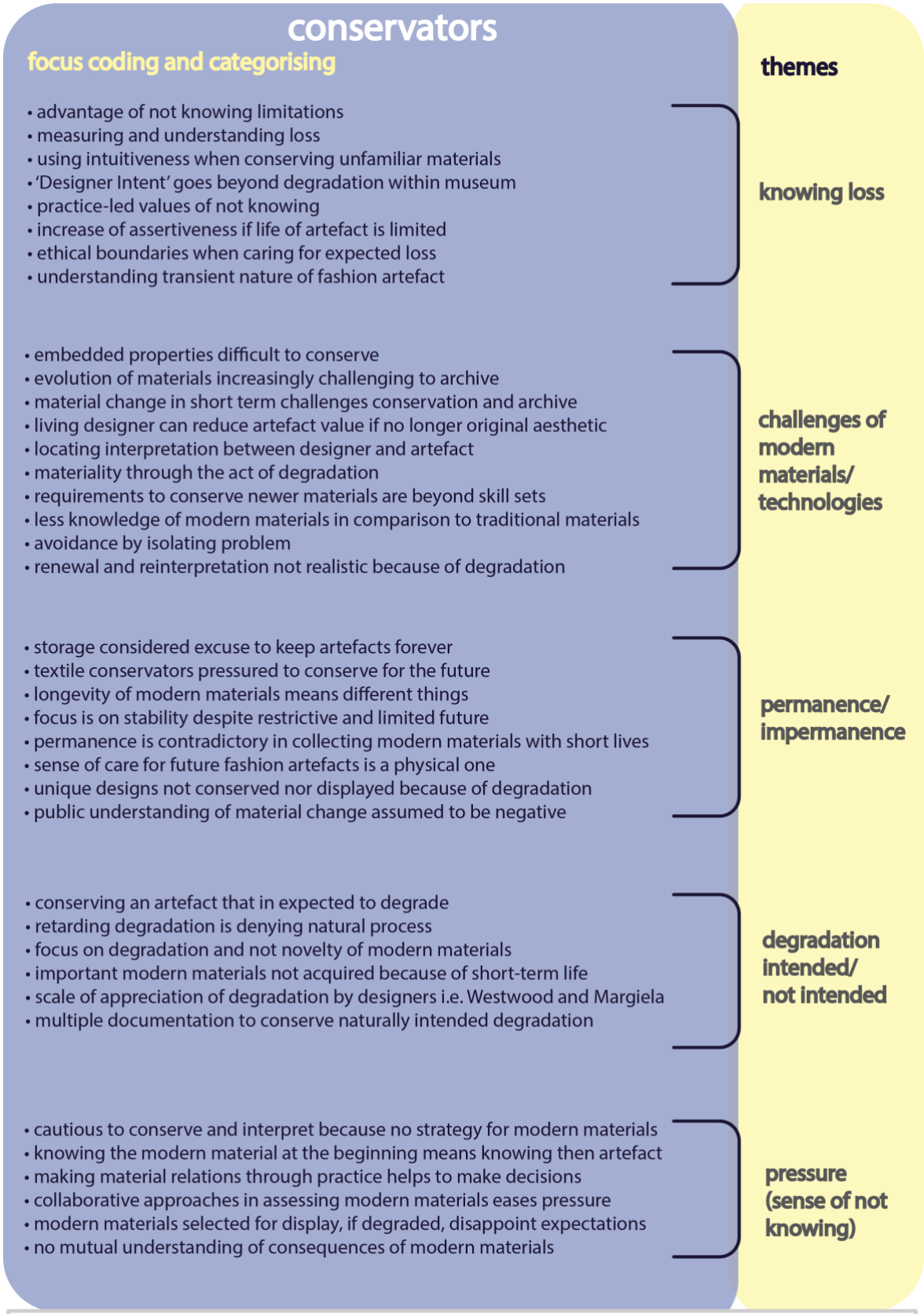


Table 4a. Summary of the outcomes from stage 2 of focus coding and the identification of conceptual themes from the analysis of the interviews with textile conservators. Image: ©Leanne Tonkin. 2022.

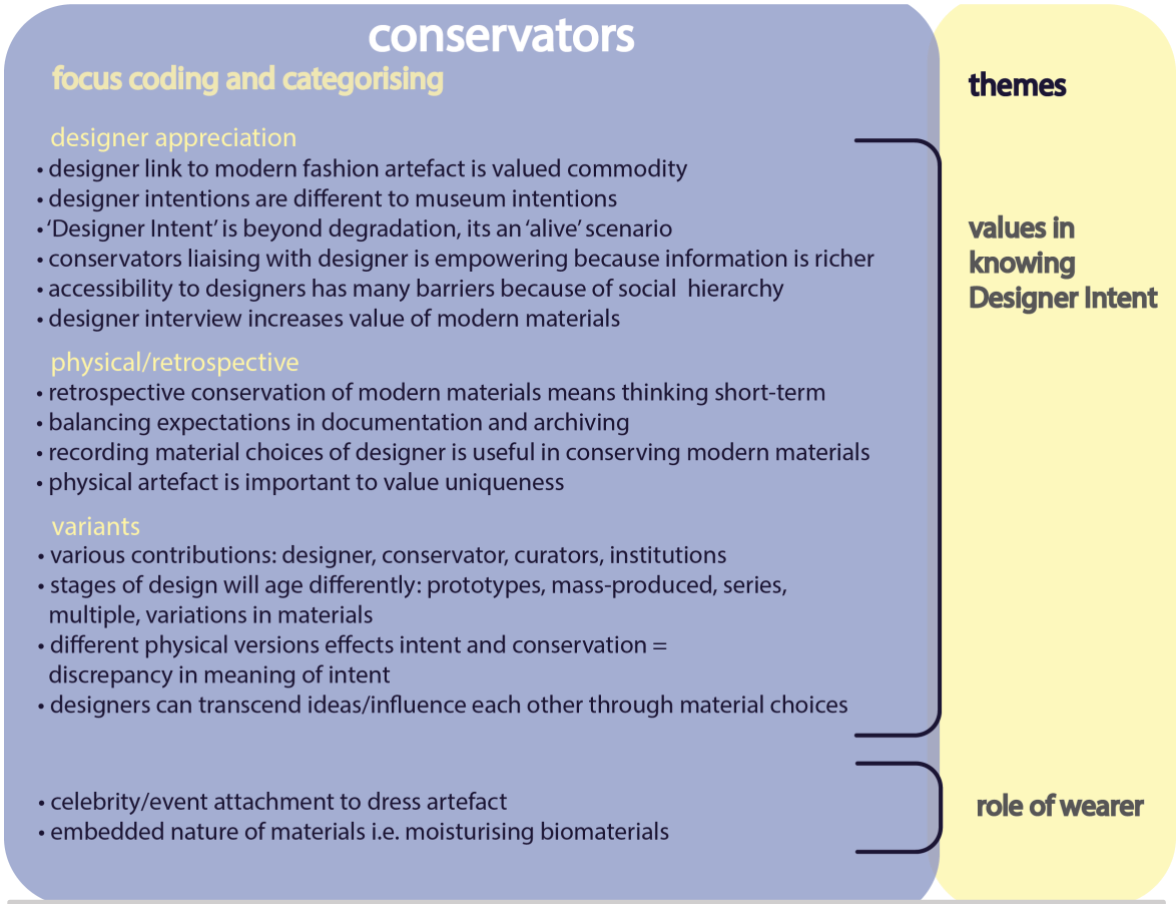


Table 4b. Summary of the outcomes from stage 2 of focus coding and the identification of conceptual themes from the analysis of the interviews undertaken with textile conservators. Image: ©Leanne Tonkin. 2022.

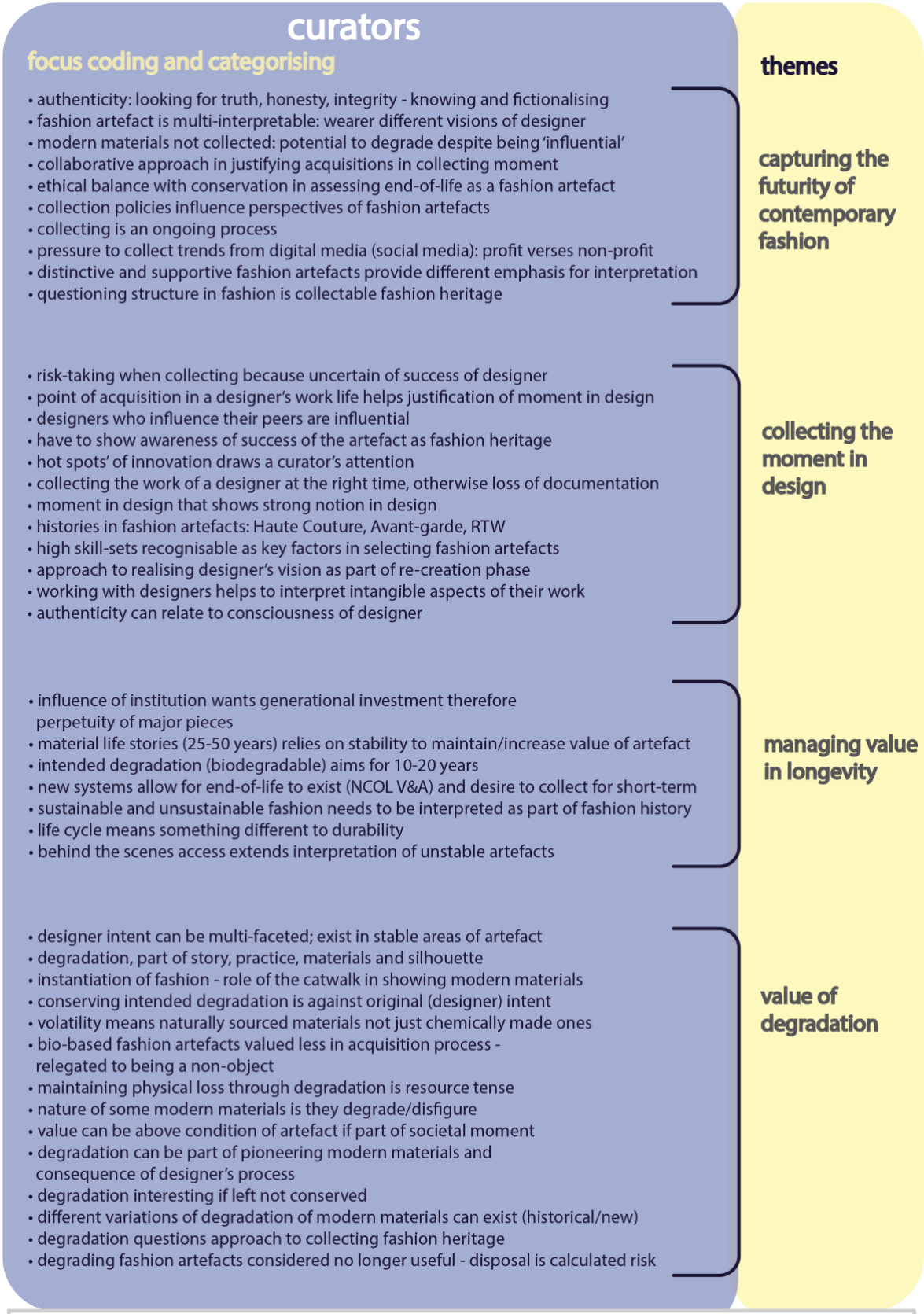


Table 5a. Summary of the outcomes from stage 2 of focus coding and the identification of conceptual themes of analysis of interviews undertaken with fashion curators. Image: ©Leanne Tonkin. 2022.

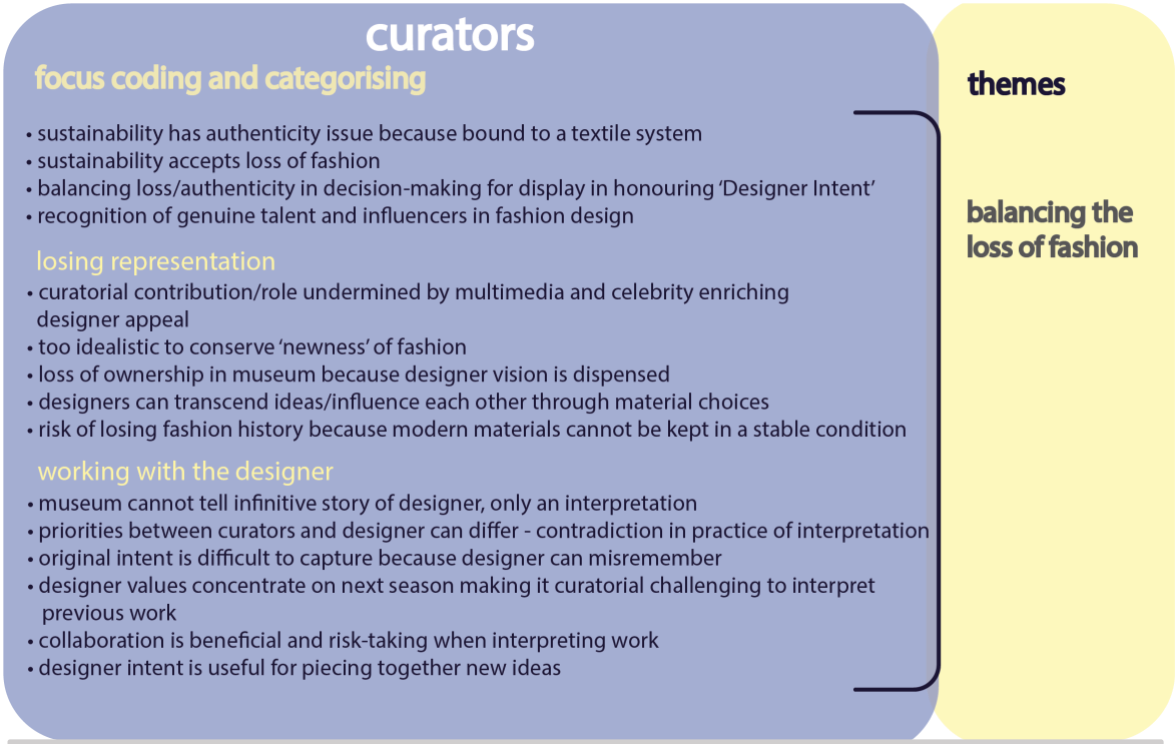


Table 5b. Summary of the outcomes from stage 2 of focus coding and the identification of conceptual themes of analysis of interviews undertaken with fashion curators. Image: ©Leanne Tonkin. 2022.

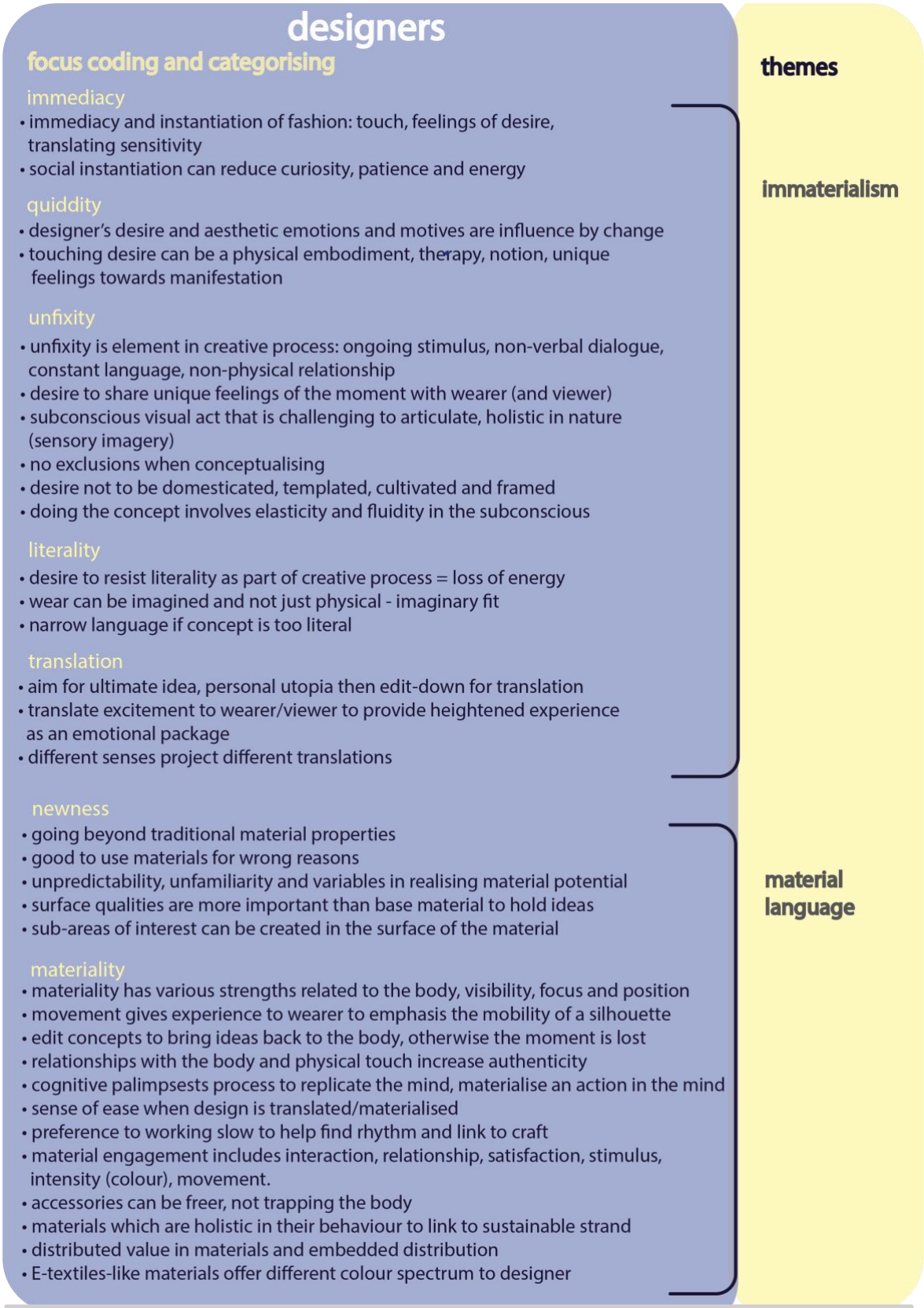


Table 6a. Summary of the outcomes from stage 2 of focus coding and the identification of conceptual themes of analysis of interviews/recordings undertaken with designers. Image: ©Leanne Tonkin. 2022.

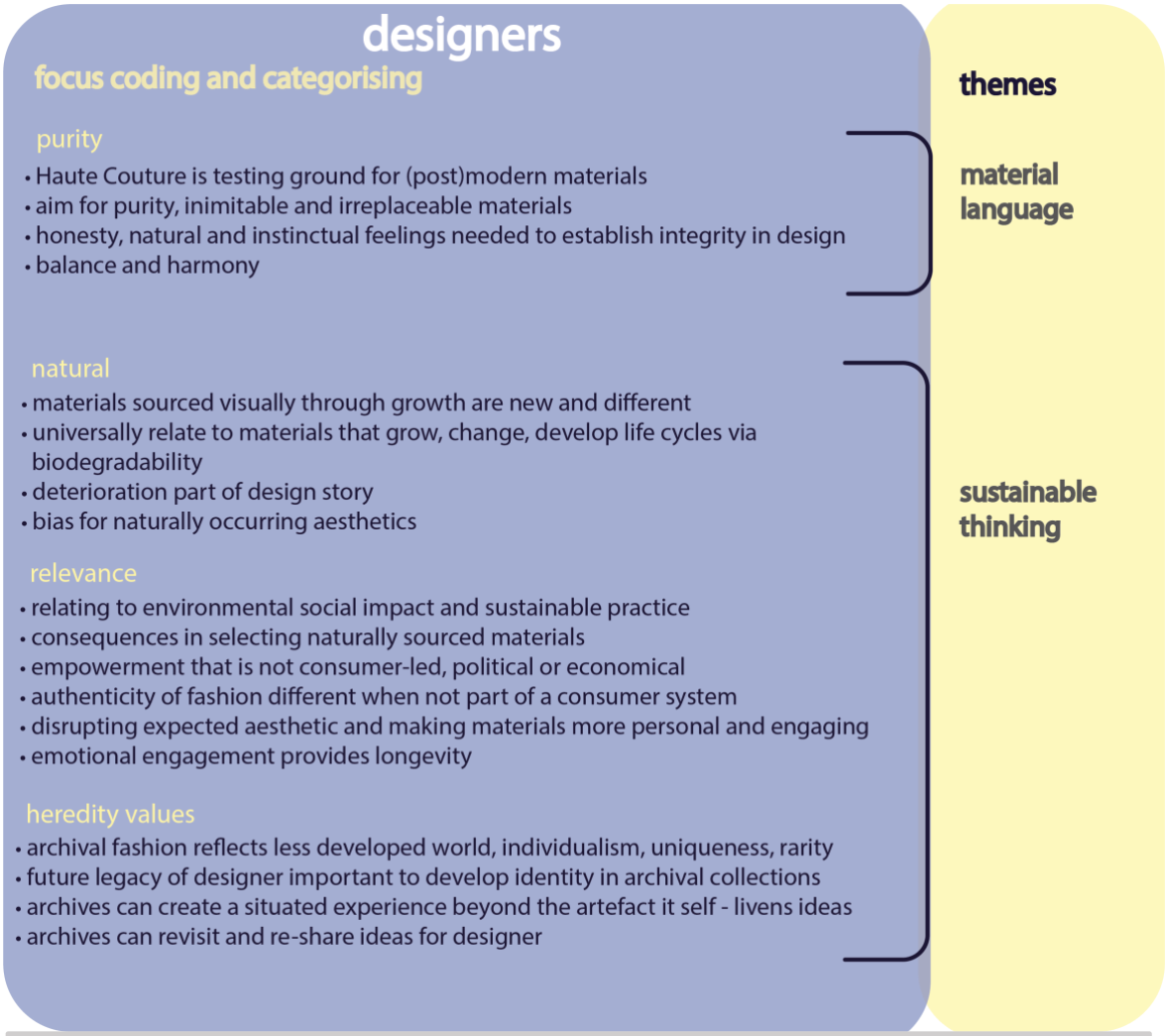


Table 6b. Summary of the outcomes from stage 2 of focus coding and the identification of conceptual themes of analysis of interviews/recordings undertaken with designers. Image: ©Leanne Tonkin. 2022.

3.5.5 Emergent thematic themes

Conservators

- Pre-empting loss can be an advantage
- Non-traditional materials can prohibit conservation practice
- Balance between permanence and impermanence of postmodern materials
- Understanding intended and unintended degradation in postmodern materials
- Increased pressure in understanding behaviour of properties in postmodern materials
- Value of knowing 'Designer Intent'
- Role of wearer

Curators

- Capturing the futurity of contemporary fashion
- Collecting the moment in fashion design and the futurity of the designer
- Managing value during lifetime of postmodern fashion artefact
- Value of degradation

- Balancing loss in postmodern fashion (authenticity, loss of representation and documentation, working with the designer)

Designers

- Experiencing immaterialism (immediacy, quiddity, unfixity, literality, translation)
- Material language (newness, materiality, purity)
- Sustainable thinking (natural, relevance, heredity values)

3.5.6 Development of theoretical frameworks

The three sets of emerging results gained from the conservators, curators and designers informed two main areas which emerged as the most common, repeated concepts which are 'understanding authenticity' and '(un)intended degradation'. These views challenge the traditional concepts of longevity in dress archives encouraging the researcher to reconsider appropriate strategies for the care of postmodern materials and fashion artefacts (see Sections 7.3.2 and 7.6). Table 7 shows a brief overview of the two emergent theoretical frameworks and the underlying theme of 'rethinking longevity' that categorise the subthemes as listed in Tables 4a to 6b. (Re)positioning authenticity and (re)evaluating degradation as a process of conserving postmodern fashion artefacts may help develop different archival ontologies that differ from traditional perceptions on long-term archiving strategies. The themes were supported by quotations from fashion collection care professionals and designers, evidenced throughout the fieldwork in this study to support the hypothesis of the crucial, somewhat overlooked role of 'Designer Intent'. Therefore, connecting to the research objectives (RO) of this study which explores experiences of collection care professionals, object-based research and archival research of (post)modern fashion artefacts, reiterated here:

RO 1: Survey professional collection care staff of contemporary fashion artefacts and conceptual designers to gain perspectives on their experiences with new materials.

RO 2: Undertake object studies of postmodern and postgrowth fashion artefacts as material and archival evidence to support key findings.

RO 3: Gain insights from other professionals to assess the effectiveness of 'Designer Intent' being encapsulated in the form of a toolkit as part of the conservation and curation.

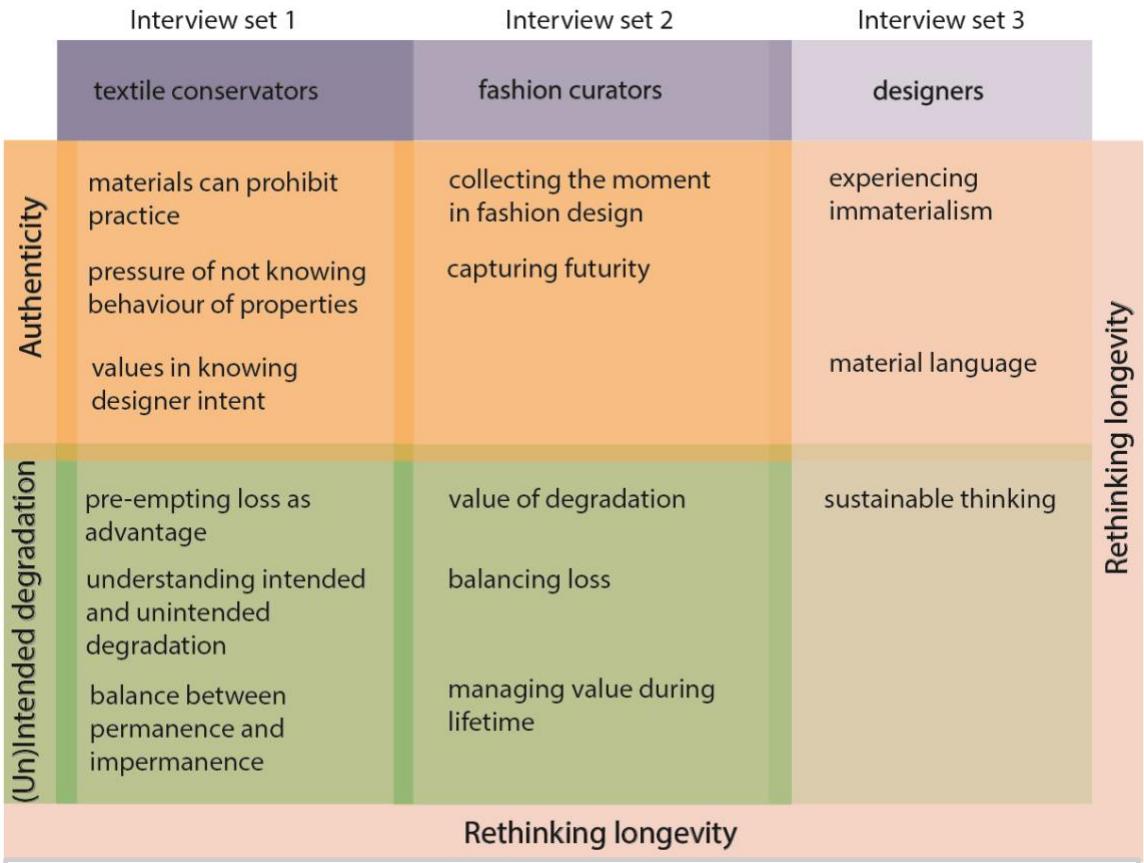


Table 7. A summary of the development of the main theoretical frameworks and sub-thematic areas emerging from analysis using the Constructivist Grounded Theory from interviews with fashion collection care professionals and designers. Image: ©Leanne Tonkin. 2021.

3.6 Arrangement of fieldwork chapters

This section briefly discusses the formulation of the two main theoretical themes/frameworks derived from the analysis of the three sets of interviews which influenced the layout of the thesis (see Section 3.5 and Tables 7 and 8). The fieldwork to this research is discussed in Chapters 4-8 and summarised in Tables 4a to 6b which aided the sub-sections of each chapter. This approach hybridised the author's thinking to allow both theoretical and practice-led analysis to take place directed by the originality of the themes. Chapter 4 is fully dedicated to the concept of 'authenticity' to rationalise shifting paradigms in the understanding of what is the original moment of a postmodern fashion artefact. Followed by Chapter 5 which is devoted to object studies to test the concept of 'conserving authenticity' through their different material characteristics. Chapter 6 concentrated on '(un)intended degradation' to analyse perspectives on working with decay in contemporary fashion heritage. Linking back to object studies, Chapter 7 examined 'conserving (un)intended degradation' as in-practice examples of the contrasting ways to characterise and document decay. Finally, Chapter 8 revised both themes to test 'Designer Intent' as a feature in conserving E-textiles and digital fashion using object studies that linked to other digital technology as part of their design. Digital fashion and E-textiles adopt different design processes and material engagements where testing authenticity and (un)intended

degradation were key in understanding their conservation. All five chapters examine 'Designer Intent' and how this new methodology can be foregrounded in fashion conservation in variable ways by assessing the viability of the concept in theory and in practice and supported by the toolkit (see Section 9.4.2). The findings from this field work suggest the need for the toolkit to aid collection care practitioners working with postmodern materials and fashion artefacts.

3.6.1 Development of object studies

Through the author's practice the theoretical perspectives were tested from the perspective of 'Designer Intent' through a series of detailed object studies (see Chapters 5, 7 and 8). Specific artefacts were used to discuss key ideas around short-term expectances and the unpredictability of some modern materials to alternative ways to archive degrading artefacts. The object studies elucidate and support the emerging themes by considering the conservation of 'authenticity' and '(un)Intended degradation' and encouraging different ways to study objects. They show the diverse material consequences of fashion acquisitioning, archiving and display in a museum context and how these aspects of collecting fashion as practice call for a rethinking of the meaning of longevity in dress archives. Polymer and bio-based and digital fashion artefacts were selected to represent postmodern materials as discussed in Section 1.3. The selected archived artefacts show existing and/or potential to change in condition which aids discussion of the concepts listed in Table 7 and illustrated by the correlating object studies in Table 8[5]. Three sets of object studies were selected for each theme as criteria and to examine E-textiles and digital fashion.

[5] Copyright of these images are acknowledged in the respective chapters where the object studies are discussed.

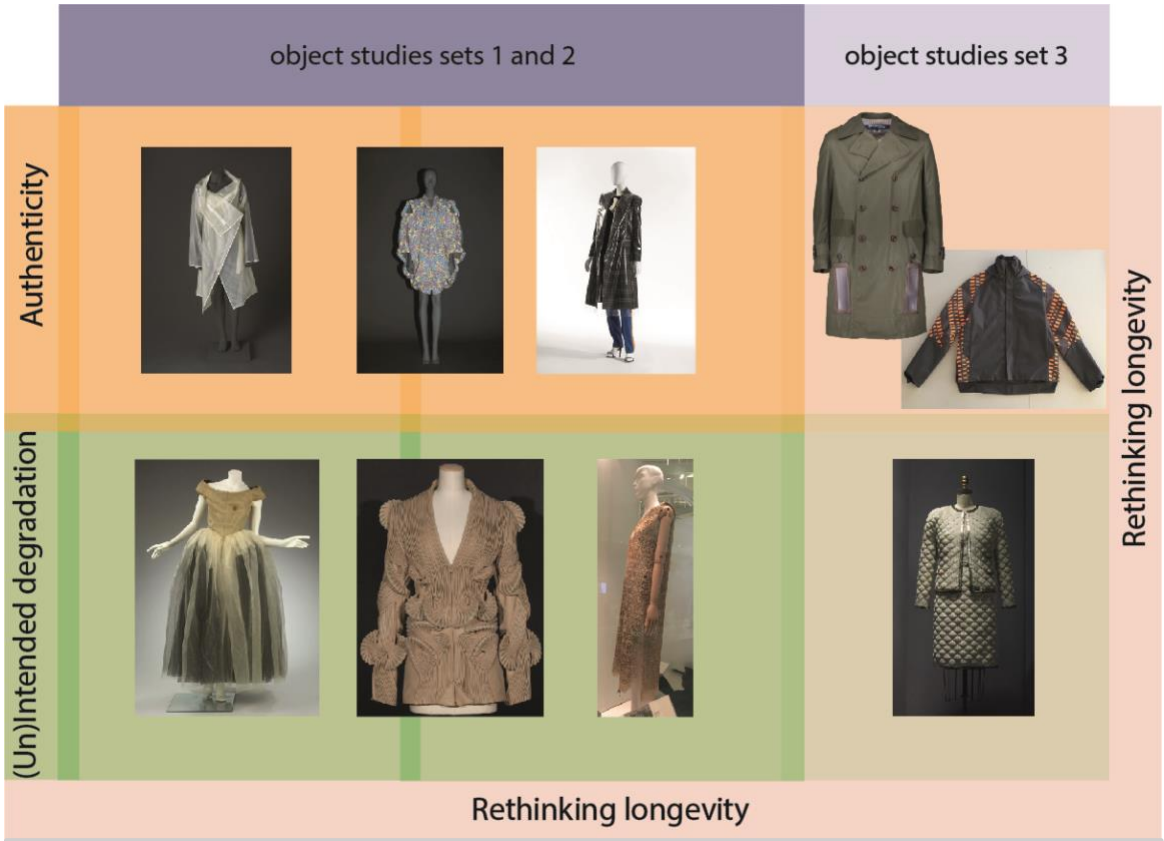


Table 8. A summary of the main object studies identified as corroborative artefacts to conceptualise contextualise authenticity and (un)intended degradation in postmodern materials and fashion artefacts.
Image: ©Leanne Tonkin. 2021.

COVID19 meant virtual archival consultations had to be arranged to complete some of the object studies whilst the others were completed in person. Digital interaction with objects encouraged co-documentation through shared and personal responses from the researcher, specialists and maker; dialogues that are not usually documented because study sessions are conducted by the conservator or researcher on their own as part of an arranged study session. The virtual study sessions conducted as part of this research (see Chapters 5, 7 and 8) raise the potential for widening archival facilities to encompass online interaction for researchers and audiences from across the world.

3.7 Adopting Material Engagement Theory and postphenomenology

The literature review surveys the main characteristics of the MET and postphenomenology (see Section 2.10.1) whilst this section describes the application of these frameworks in examining the themes and object studies. During the transcribing and the Constructivist Grounded Theory analysis of the professional interviews the researcher identified object studies as critical material examples that helped evaluate ideas of authenticity, (un)intended degradation and 'Designer Intent' (see Section 3.6.1). These ideas encourage a combined philosophical approach of using postphenomenology (Ihde 1995) and Material Engagement Theory (MET) (Malafouris 2013) supporting alternative ways of thinking about conserving and interpreting postmodern materials and fashion through alternative criteria for examining and documenting such artefacts. This

approach assisted practice-led inquiry that balanced the object-based analysis to avoid restrictive perspectives relating to aesthetic or physical considerations.

This mixed epistemological approach aided the researcher to engage with her experiences of conserving the ephemeral aspects of (post)modern materials (see Section 2.10.4.1). As opposed to feeling conflicted by the potential of degradation, the author empathised with it using the criteria of material authenticity and (un)intended degradation as interdependent aspects in conserving 'Designer Intent'. Postphenomenology and the MET enabled the researcher to rethink dress archival ontologies for postmodern fashions that presented ways of new materialities and digital ecologies (Ihde and Malafouris 2019: 196) which are increasingly becoming part of fashion history. Employing these theories helped the researcher to re-examine aspects of longevity in archives to encompass aspects, such as transience and loss, as attributes of conserving and interpreting postmodern materials.

3.7.1 Nexus of Material Engagement Theory and 'Designer Intent'

Figure 19 shows the nexus of MET in relation to a 'Designer Intent' methodology. The outer circle of the nexus binds the three working hypotheses as defined by Malafouris (2013: 50) with summaries of aspects of each hypothesis. These are: extended mind (cognition), exploring the existence of interrelationships between cognition with material culture; enactive sign (signification), exploring material sign as a variable semiotic engagement which is co-habited through matter enacting and bringing forth meaning (the world); and material agency (agency), which is viewed as an emergent product of situated activity with no fixed positioning (Ibid: 50-51). All these aspects avoid a representational outlook and acknowledge the 'in-between' space of the mind and the maker (Ibid: 2) as significant to enable theoretic insight encouraging a new area of material engagement. Thus, presenting ways to analyse, understand and record 'Designer Intent' as a new methodology foregrounded in postmodern fashion conservation.

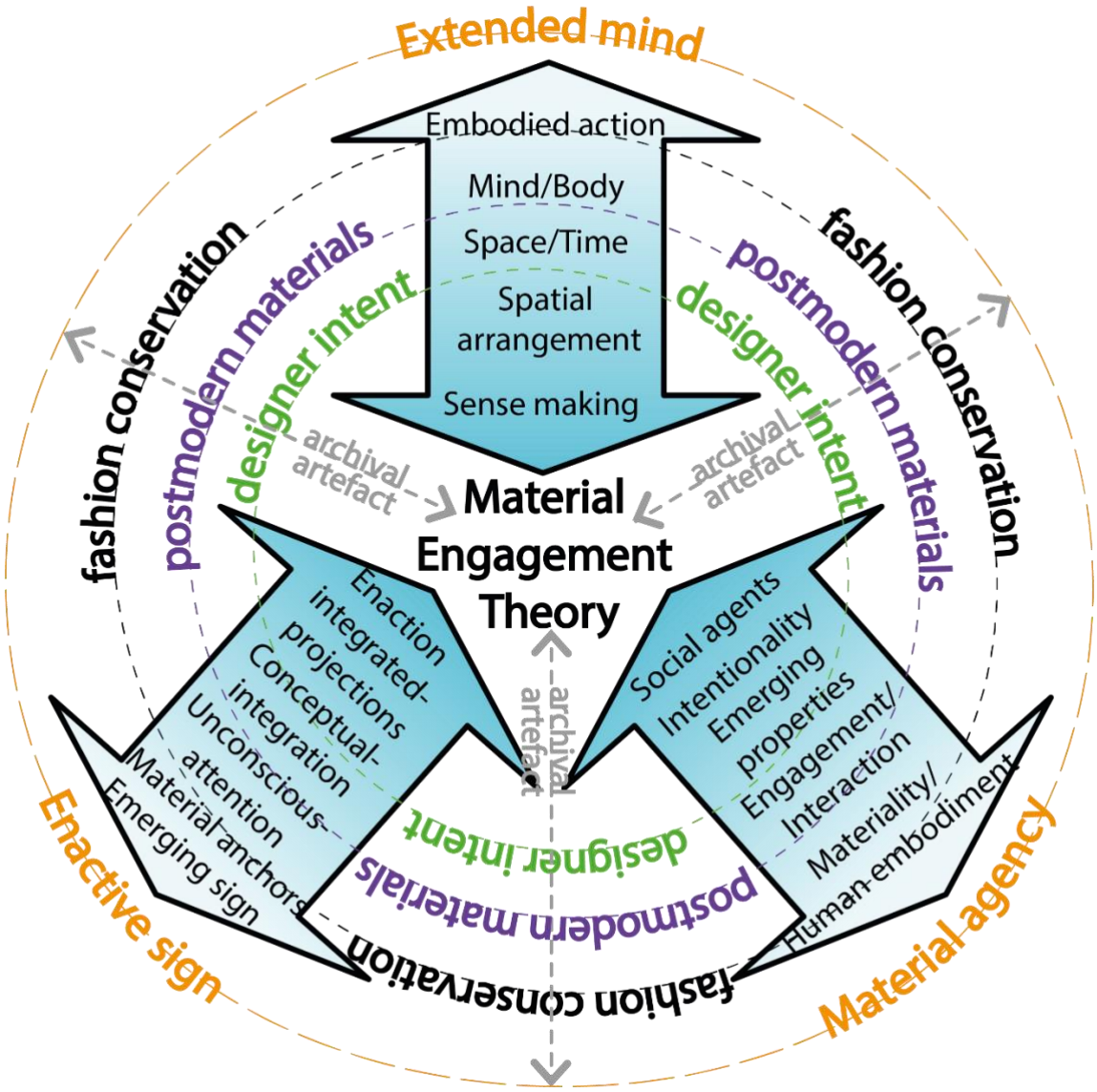


Figure 19. Diagram (after Malafouris 2013: 51) illustrating the nexus of Material Engagement Theory in relation to a 'Designer Intent' methodology. Image: ©Leanne Tonkin. 2021.

3.8 Summary of key findings

- Interviewing conservators, curators and designers was critical in gaining perspectives in caring for contemporary fashion history.
- Constructivist Grounded Theory established the main theoretical themes/frameworks that directed the structure of the thesis.
- 'Authenticity' and '(un)intended degradation' were identified as significant themes, embedded by a third theme of 'rethinking longevity'.
- Object studies emerged as correlating tools to test 'Designer Intent' through the discovery of the conceptual themes.
- Material Engagement Theory combined with postphenomenology substantiates main concepts and object studies which enabled exploration, discussion and outcomes.

Chapter 4.0 Conserving the moment: authenticity in postmodern fashion

> That was always something I wondered about Martin Margiela. Because he wants it to [change], because most of his vintage collection they look like they have to deteriorate, because he makes them like that. His artificial collection they look like they're damaged but when I talk to him, he said if I knew before the degradation goes so fast, I would have used something else. But he said then, but I just really like the way it looks at the moment.
>
> Kim Verkens, fashion conservator,
> Mode Museum (MoMu), Antwerp. 2019.

4.1 Introduction

This chapter explores 'Designer Intent' as a way of evaluating authenticity in the conservation of fashion artefacts incorporating postmodern materials. In Chapter 3 the author explained how 'authenticity' was one of two main themes to emerge from the analysis of interviews with fashion conservators, curators and designers (see Section 5.3). Establishing the authenticity of a contemporary fashion artefact, from a curatorial perspective, is to represent the creative output of a designer at a given point in time, as accurately as possible. The position of the researcher as a textile conservator is explained in Section 2.2, indicating that confirming authenticity is an area of uncertainty relating to museum collections holding fashion artefacts. The term 'postmodern' in terms of fashion conservation refers to conserving contemporary fashion artefacts within a contemporary time frame i .e. the last 10 years (see Section 1.1).

Postmodern materials are becoming part of the material palette for contemporary designers because they can offer different properties and qualities which may bring new kinds of aesthetic flexibility (van Dongen et al. 2019: 1-12; Townsend et al. 2020: 5-8). Such materials help fulfil designers' creative desires, and in cultural heritage, this phenomenon has been interpreted as designers using 'extramental materials' (Debo 2019). Novel fabric choices can influence conservation practice when considering the intangible aspects of 'material concerns' (Hölling et al. 2019: 4). The problem arises when advanced or organic fabrications are considered as potential museum artefacts entering an archival environment through curatorial selection. Ethical and material values are redefined via a long-term trajectory in artefact story-telling indicative of the ideals embedded into the infrastructure of museum collecting (Caple 2006: 7). Consequently, archiving ideals often conflict with the consequences of material choices made by the designer, particularly through changes due to perceived and unexpected instabilities. (Post)modern materials can change chemically, mechanically and physically over time causing degradation that happens at variable rates (Shashoua 2008). These changes can interfere with the original aesthetic intentions of the designer which can alter fashion artefacts ontologically and anthropologically within a museum context, impacting conservation and interpretation.

In this chapter the author argues that the concept of authenticity can encompass transient properties and qualities of postmodern materials in contemporary fashion as part of conserving 'Designer Intent'. Along with contemporary conservation theories (see Chapter 2), the Material Engagement Theory (MET), proposed by Lambros Malafouris (2013), is employed to underpin connections between material culture and the agency of postmodern fashion artefacts by considering the cognitive aspects of engaging with fashion artefacts. Discussion suggests a 'postconservation' model to support a 'postfashion' system, which includes and re-evaluates 'Designer Intent' and authenticity as aspects of conserving and documenting postmodern materials and fashion artefacts. This chapter, as with the forthcoming four chapters, follows a thematic approach supported by interviews undertaken with fashion conservators and scientists, curators and designers and archival examination of fashion artefacts to illustrate ideas and findings (see Chapter 3). Ideas about the existence and benefits of knowing 'Designer Intent' are introduced, as well as (re)identifying with authenticity and aesthetic understanding in postmodern materials and fashion.

4.2 'Designer Intent' and authenticity: a new conservation perspective

The idea of 'Designer Intent' and authenticity relating to fashion artefacts is an unfamiliar and undefined concept within conservation and curation (see Section 2.9). The term 'authenticity', along with identity, values and interpretation relating to the various disciplines of conservation has been thoroughly dissected, reformed and re-evaluated over the last two decades to help create more sustainable and axiological approaches to caring for multi-media cultural artefacts (Muñoz Viñas 2005; Tonkin 2017: 166; Hölling 2017b: 87-96; Sweetnam and Henderson 2021: 3-4). Van Saaze (2013c: 35-60) explains that conserving artist intent and the authenticity of contemporary artworks often 'suggests a direct link to the artefact's past and its maker' (Ibid: 49). Differences can arise when considering these links as conservation can follow the route of 'conceptual authenticity', a concept-led, humanistic approach, or a 'material authenticity', object-led, scientific approach, whilst conserving artworks (Ibid). These differences in conceptual and material authenticities have recently been reconsidered by conservators who care for time-based media (Hölling 2017b) and performance-based artworks (Marçal 2017: 97-104) in museum collections as being part of the perceptions of wider stakeholders who connect to the artwork. For example, Scott (2015: 293) acknowledges that the engagement that takes place between an artwork and the user, as being part of its authentication because there is an 'interaction with the mental states or perception of the viewer as part of a mediated process of assimilation'.

The 'cultural weight' (Payne 2021: 54) of designers is considered influential by fashion curators due to the fact that they are 'arbiters of taste and directors of fashion-as-change' (Ibid) forming

part of fashion interpretive practice. Curatorial intentions ensue involving aesthetic investment and long-term expectations to interpret the influence of a moment and document design progression. With some exceptions, curatorial intentions often follow different agendas to those of designers. They are instinctual, follow their own material language and are often situated in a series of 'physical arrangements' (Entwistle and Rocamora 2006: 744) of ongoing shows that platform their progressive creative desires 'as a form of commercial seduction through novelty and innovation' (Evans 2013: 67). The notion of 'Designer Intent' can become paradoxical when combined with a cultural landscape because of the change in context in which the artefact was created. At MoMu, the collections staff have established strong relationships with Antwerp based designers which helps them to develop the 'museumisation' (Calefato 2019: 38) of their intentions.

> I think to recognise the importance of creative research because that's what designers, or interesting designers, do, they have a lot of creative research which is different let's say from academic research. I think it's not up to them to reflect on their own practice and to reflect on their place in history. That's up to us as a museum. To integrate creative research within an exhibition is what [designers] can do. It's not because that you show their drawings and their toiles [sample garments], that you bring in the creative research. It's really to bring in how they think and how they work and how their mind works. What their world is about. And I think there's different ways to display that.
>
> Kaat Debo, director and chief curator,
> Mode Museum (MoMu), Antwerp. 2019

Debo identifies with the 'material consciousness' (Malafouris 2014: 149) of the designer through their creative process can be reappreciated by cultural heritage stakeholders who collect artefacts that represent the materialisation of the creative ideas of the designer in a specific time and place. Often the value of intent resides with the direct link to the designer (Tonkin 2017: 162) but is subject to institutional interpretation and expectations of the artefact.

4.2.1 'Materiality dependent' values

The short-term survival of some materials that designers select can contribute to the ephemeral nature of fashion artefacts. This can impair the original construction, drape and visual aesthetics the designer originally intended. Studying style and fashion can be 'intersubjective' (Kaiser 2001: 90) where shared values and perceptions on these impairments could create new understandings by the user, the viewer, which were not anticipated by the designer. Therefore, making material engagement 'an emergent and open-ended process' (Ibid) in the understanding of fashion artefacts. The intentions of designers are different to those responsible for a museum archive. Curators want to showcase examples of influential fashion designers practice, pieces that capture a distinctive moment in time and the creative direction of a designer's work (Murray 2019). This curatorial responsibility is reliant on conservators who wish to preserve the uniqueness of a

fashion artefact to help represent the progression of fashion culture. These aims can be challenging to accomplish if the materials do not survive for extended periods (i. e. polyurethane, 3D printed and bio-based materials) to allow for future design storytelling.

To give an example of this challenge, Figure 20 shows a degrading moulded polyurethane foam dress designed by Hussein Chalayan, RTW, S/S 2009. The dress was briefly examined by the author during preparations for the *Manus x Machina in an Age of Technology*, exhibition at The Costume Institute, The Metropolitan Museum of Art (May-September 2016). The examination revealed physical damage and loss to the tips of the protruding shapes at the back of the dress after only seven years since its creation, illustrating the short lifetimes of some postmodern materials. Polyurethane foam is not expected to survive beyond a 20–25-year period because of its product characteristics and external factors. For example, exposure to daylight and hydrolysis caused by moisture and mechanical shear[6] (van Oosten 2011: 40-43). The dress was not displayed because of the degradation to the material.

Figure 20. Detail of degrading dress, made from moulded white polyurethane foam, hand-painted and airbrushed with crushed automobile imagery, showing degradation and loss from protruding shapes. Hussein Chalayan, Prêt-à-Porter, S/S 2009, The Costume Institute, The Metropolitan Museum of Art, 2016.
Image: ©Leanne Tonkin. 2016. The Metropolitan Museum of Art.

[6] Shear strain is a continuous (non-fracturing) deformation that is irreversible, such that the material does not recover its original shape.

Contemporary fashion made from (post)modern materials 'archivally act' differently to objects made from traditional materials (see Section 10.3.3) and therefore challenge established archival parameters. This shifts the paradigm of 'materiality dependent' values in fashion design artefacts made from materials which, (sometimes unexpectedly), change over different time spans or are dependent on technology iterations in the future. The dynamics inherent within material properties can therefore change the originality of the design, as captured on the catwalk and in the media, emphasising the importance of establishing 'Designer Intent' as part of the archiving process.

Contemporary conservation theories begin to decentralise ingrained thoughts on the authenticity of museum artefacts. Notions of 'true condition' and 'true nature' do not necessarily represent the original moment of an artefact (Clavir 2002: 34; Muñoz Viñas 2005: 91-95, 102). With similar views to Kaiser (2001), Muñoz Viñas (2005: 93) argues that artefacts cannot 'exist in a state of falsehood' and intentions and values are not material or scientifically underpinned, they are 'personal, subjective' (Ibid: 102) concepts. Changeability that occurs in ageing materials, for example, the different degrading conditions of two identical evening belts designed by Elsa Schiaparelli and Jean Clément c.1938 (see Figures 21 and 22), could be considered as demonstrating how 'fictional' (Muñoz Viñas 2020: 21) the aspect of authenticity is during the process of material engagement with a postmodern fashion artefact and its conservation. Engaging with the different stages of ageing of the belts, made from cellulose acetate (CA) (see Section 2.3.2), shows how material authenticities are different from one another. This is due to the degradation being part of the authenticity of the artefact and material (see Sections 7.2, 7.3, 7.4) indicating '…condition is only authentic if it coincides with the real condition of the object, …the only truly authentic condition of anything is the state in which it exists' (Ibid: 20). Thus, meaning authenticity is transient, transportable and unfixed because the material properties can reconfigure the centrality of aesthetic expectations. Muñoz Viñas (2005) argues scientific conservation is guided by an 'unspoken material conservation theory' in order to 'preserve the object's material truth' (Ibid: 81). This implies that the application of scientific methods and knowledge with the aim of preserving an objects physical form and chemical composition can objectively support ideas of why modern materials can react differently according to various conditions, like the belts, but 'lacks a written, theoretical body that precedes or avails it' (Ibid: 90).

Figure 21**.** Evening belt designed by Elsa Schiaparelli and Jean Clément. c.1938. Brooklyn Museum Costume Collection at The Metropolitan Museum of Art, Gift of the Brooklyn Museum, 2009; Gift of Millicent Huttlestone Rogers, 1951 (2009.300.3135). Image: ©Anna-Marie Kellen. The Metropolitan Museum of Art. 2016.

Figure 22. Evening belt designed by Elsa Schiaparelli and Jean Clément. c.1938. Brooklyn Museum Costume Collection at The Metropolitan Museum of Art, Gift of the Brooklyn Museum, 2009; Gilt of Millicent Huttlestone Rogers, 1951 (2009.300.2764). Image: ©Anna-Marie Kellen. The Metropolitan Museum of Art. 2016.

'Designer Intent' and the authenticity of postmodern fashion can therefore be considered as transient concepts that acknowledge changeability and impermanence in the gaining of some authenticities whilst losing others (Muñoz Viñas 2020: 21) as part of their survival and interpretation. This approach does not comply with a traditional cultural expectation of a fixed aesthetic moment (see Section 4.5 and Chapter 5). As Elizabeth Murray, curator, modern fashion and textiles, V&A, points out changeability and impermanence can be important elements of some postmodern fashion when considering acquisition because they are key to their story (see Section 7.2).

> In the case of the [Vivienne] Westwood [Wild Rubber Dress] it's an example of using naturally sourced rubber in a sustainable way [and] a social action project. So, it's extremely interesting. And part of that use of the new material means that it's gonna be degrading. So, the only way you can collect an example of it is to accept that it will degrade so that the value that you have in that piece is above, I suppose that condition or part of the condition.
>
> Murray. V&A. 2019.

Collecting contemporary fashion artefacts, in the case of new materials that will likely change in the short-term may require different methods to recreate them for display, creating a tension between a particular designer's aesthetic at a past and future moment in fashion history. Curators are increasingly cautious leading them to a preference for collecting traditionally stable materials rather than new materials that have the capacity to change or deteriorate. Samson, Haute Couture and contemporary curator at Palais Galliera, Paris, acknowledges the risk posed when deciding not to collect postmodern fashion because of the expectation of long-term stability to help maintain a certain aesthetic expectation.

> In terms of moral, of ethics, let's say, it's important to pick pieces that are going to last (…). When I arrived in the show room to select the pieces to buy [Noir Kei Ninomiya ready-to-wear S/S2020], I realised that all the embroideries were fixed on the [polyurethane ester] foam, …very thin, very fragile (…). This kind of foam, we know it by experience, [it falls] apart [in] less than five years. And [the entire collection was made with] this kind of foam. I loved the pieces. I just love the look. It was just one of the major looks of this collection and I say 'no' I cannot buy it because it will be destroyed.
>
> Samson, Palais Galliera, 2019.

If curators do not acquire challenging pieces, like the Vivienne Westwood and Noir Kei Ninomiya pieces, conservators cannot change the methods of contemporary fashion conservation that may allow for other interpretations of material engagement.

4.2.2 Conserving the temporality of fashion

Textile conservators are pressured to deliver contemporary fashion exhibitions where novelty in presentation is often important to the curator and the museum (Verkens 2019; Glenn 2019). Expectations and priorities to show high fashion are often different to traditional protocols of

presenting and conserving accessioned artefacts (Wilcox 2016: 195). New properties in materials offer boundless opportunities for designers to explore, experiment and push beyond commonalities that allow unpredictability, unfamiliarity and variables in their creative process. These are important aspects of a designer engaging with new materials and the challenge of documenting this process encourages ideas of the MET that will expand and support this area of postmodern and postgrowth fashion conservation. Malafouris' (2013: 52) MET recognises objectivity is a 'constant search' to identify a 'true vision of things' (Ibid). Extending on Kaiser's (2001) and Muñoz Viñas' (2005, 2020) perspectives on authenticity, Malafouris recognises that being objective is not a fixed point, rather it is a continual search for the best possible perspective that enables the person to understand the phenomena in which they are engaging. He suggests that the paradox of objectivity and subjectivity is like a seesaw effect, when you slip towards a 'greater objectivity' you become less attached to your own viewpoint (Ibid: 52, 52), to a specific interpretation of a thing, an artefact. In fact, it distances their perception of the 'true vision'. By way of explanation, a desire to capture originality, the moment of creation, only represents a single version of what the maker was experiencing. The MET encapsulates the quiddity of designers (and the role of 'Designer Intent') that is often influenced by changing experiences and emotional responses.

Following the cognitive and (post)phenomenological approach of Malafouris (2013) and Idhe (2009), the ontology of creation for high fashion designers can be analysed as a progressive experience and is not necessarily tied to one moment. Rather, it is a series of moments involving the designer's cognitive and physical engagement with the material (Malafouris 2013: 53). In conserving and interpreting these temporal moments of fashion, which are already curatorially perceived and valued as a design moment in history once presented on the catwalk (Samson 2019) (see Section 5.3.1), the artefact could symbolise a part (or parts) of the designer's creative process, linking to temporal design moments they once experienced. Fashion is considered a 'time-based and time-specific medium more than other kinds of design' (Evans and Vaccari 2020: 3). Designers, like Martin Margiela, have retraced time through fashion to (re)incorporate the use of time to (re)materialize ideas that can represent the ageing of fashion. As Verhelst and Debo reaffirm, 'Such materials do not hide the course of time but carry on the traces of a garment's previous life and incorporate it into the new item – they are the silent witnesses of durée' (Verhelst and Debo 2008: 9). Consequently, 'Designer Intent' may incorporate palimpsest memories by the designer represented by a single temporal version which is the artefact.

4.3 Positioning authenticity in postmodern fashion artefacts

Authenticity in contemporary high fashion collections in museums is often associated with technical and material-based perspectives as opposed to ideas linked to 'Designer Intent' (see

Section 4.2). Garment care labels are a common point of reference for collection care staff to identify material properties and links to designers and design houses. Information printed on the label can often be inaccurate or ambiguous not being the priority of the designer. It can get lost in translation during the final stages of product development. Other stakeholders in the design process who may be responsible for the labelling can intentionally or unintentionally, mislead the customer. This becomes problematic when researching and conserving fashion artefacts as Edwina Ehrman, independent dress historian and former senior curator, fashion and textiles, V&A, London, points out:

> The whole thing is about the honesty and integrity of both the manufacturer and the designer because many designers' labels say silk, it's not silk, it's viscose. Why are you telling me it's silk? They're telling me it's silk because they want the reputation for working with good fabric. And the public have a lesser view of viscose than they do of silk.
>
> Ehrman, independent dress historian. 2019.

The role of the care label as part in the documentation of postmodern fashion can offer different perceptions of authenticity because the material authenticity of the artefact itself will present different states in condition during its ageing process. The author assessed a pinafore dress from the Blood and Roses collection, designed by Rei Kawakubo/Comme des Garçons, c. 2016 (see Figures 23 and 24) which helped to consider the value of 'Designer Intent' when conserving pieces like this that may contradict museum expectations of aesthetic experiences due to potential material changes over time. Potential degradation is somewhat acknowledged by Kawakubo with the integral component of the care label that states, 'the coating may deteriorate, peel and become sticky or discolour with repeated wear and in the course of time' (see Figure 25) indicating the condition of postmodern materials may be fluid in character making the Blood and Roses Pinafore problematic when archived as it is expected to remain looking unchanged as an outcome of acquisition.

Figure 23**.** The proper-right polyurethane part of pinafore dress with upper centre back care labelling attachment by Rei Kawakubo/Comme des Garçons under examination, The Costume Institute, The Metropolitan Museum of Art. c. 2016. (2015.268a-g). Image: ©Leanne Tonkin. 2016.

Figure 24. Pinafore Dress designed by Rei Kawakubo/Comme des Garçons, S/S c. 2015. Blood and Roses RTW collection. Image: ©DEW Magazine. 2016.

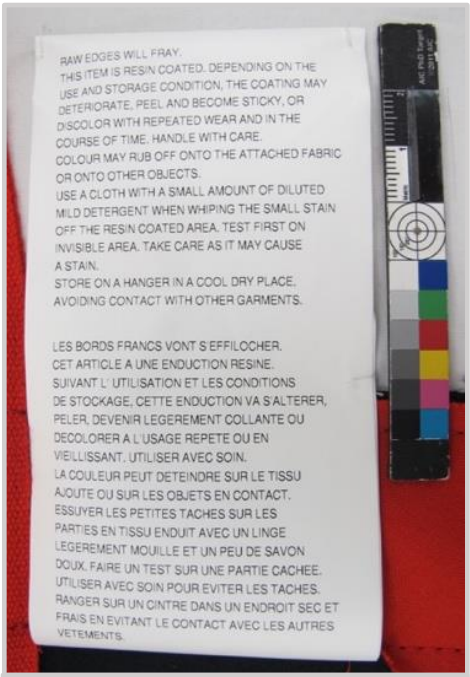


Figure 25. Internal care labelling inside the Pinafore Dress designed by Rei Kawakubo/Comme des Garçons, S/S c. 2015. Blood and Roses RTW collection. (2015.268a-g). Image: ©Leanne Tonkin. 2017.

Positioning authenticity in fashion, by representing the creative output of a designer at a given point in time, as accurately as possible, presents uncertainty when conserving contemporary fashion artefacts showing significant deterioration (de Sá et al. 2014: 193-203; Tonkin 2017: 152-167). High aesthetic qualities are a key attribute in contemporary fashion representation and when the original material aesthetic is lost, the artefact's exhibition life is compromised (de Sá et al. 2014: 227).

4.3.1 Collecting the moment: material signs

Identifying the right moment to collect a designer's work is part of the authenticating process for museums (Ehrman 2019; Debo 2019). It involves an element of risk-taking to capture the moment that demonstrates a major influence in fashion design. Curators sometimes follow patterns of influence and timing in a designer's career that show uniqueness or reflect significant trends that resonate with the fashion press and public. Such moments make the design worth collecting by curators, as they become important material anchors, acting as distributed cognition in supporting these choices, perceptions and priorities (Malafouris 2013: 67, 72). From a conservation perspective, looking at an aspect of the MET known as the 'enactive sign' (see Section 2.10.2) (Malafouris 2013: 51; 2018: 757) is a useful tool for documenting and understanding the process of rationalizing the selection of a particular look, as shown on the catwalk. 'Material signs' (Malafouris 2013: 117), part of the 'enactive sign' segment of the MET, such as those moments that for no reason capture our imagination, can be read and enacted to substantiate the 'aura' (Evans 2003: 106, 176) of a garment, elevating it to a collectable clothing concept.

4.3.1.1 The catwalk

A catwalk presentation provides a translation of the designer's work situated in seasonal formats, thematic performances and a series of individual, connected looks. The curator often engages with this presentation as a key event in identifying moments of fashion heritage to collect and conserve. It is often part of a spatial, temporal and experiential occasion that acknowledges social relations between actors in the fashion system. When a curator selects a look from the catwalk this could be acknowledged as a 'material sign' that has emerged from the various parameters of the catwalk performance. This is part of a fashion engagement process which occurs when the 'material sign' initially engages the curator through epistemological rather than a hermeneutical action (Malafouris 2013: 117). The curator has meaningfully engaged with the look before any actual historical meaning has emerged. Kate Fletcher (2019: 49) describes this 'fashion moment' as 'an electric experience, unpredictable, unschooled, emergent'. Within that moment are attempts of sense-making, a possibility of historical meaning, as a 'temporally emergent property of material engagement' (Malafouris 2013: 117) between curator and the fashion look. When the

artefacts are selected through the decision of the curator it enters a heritage landscape to undergo 'museumisation', where it is transformed into the confinement of an archive (Calefato 2019: 38). Fashion artefacts assume a kind of prestige when becoming an active part of fashion history but through traditional archival protocols they are 'denuded of any dynamism' (Ibid: 39) effectively causing the 'museumisation' of 'Designer Intent'.

Kim Verkens, a fashion conservator responds to the impact on fashion artefacts upon entering a museum context and the constraints of being 'confined to an archive' to fulfil curatorial expectations.

> We [the museum] bought one of Bjork's [stage costumes at] an auction and when it came here it was in actually in very bad condition because it was worn a lot and she used it a lot in her shows. And then [the curators] want to see it on a mannequin, and I know it will never look as good as [the curators] want. But they still want you to try. (…) that's difficult I think but the museum wants results, and they want to display [the fashion artefacts looking like new]. But that's the most difficult part for me.
>
> Verkens. MoMu. 2019.

Verkens reaffirms that the process of 'museumisation' often represents a specific cultural performance of the artefact. The action of curatorial selection can 'provoke a disconnection between preserving the design and the original designer's intent' (Tonkin 2017: 165). Working with the designer and their house throughout the acquisition process often means promoting the house and enabling the designer to influence curatorial decision-making creating further disconnection; the notion of authenticity becoming materially bound to the conservator dependant on designer/curatorial advice and interpretation. This situation can be limiting especially in relation to fashion artefacts constructed from transient materials, through a lack of mutual understanding and disparate motivations between the curator and conservator. While cutting edge fashion designers such as Kawakubo, Chalayan and Margiela have explored 'dereliction' and 'patina' as artistic strategies (Evans 2003; Verhelst and Debo 2008), in conservation there is no recollection of the 'numinous' quality (Clavir 2002: 30) the artefact has collected since its inception appearance. Therefore, despite the kudos attached to a catwalk appearance of a top model, material authenticity remains the main priority for inclusion and survival in the archive, increasing the cautiousness in gaining knowledge and understanding of unknown material trajectories.

4.3.1.2 Timing

Collecting artefacts at contemporary fashion shows is a 'social construct' (Clavir 2009: 139) of cultural significance. In interviews with Edwina Ehrman, independent dress historian (and former senior curator, Fashion and Textiles, V&A. London), Alexandre Samson, curator, Haute Couture and Contemporary Design, Palais Galleria, Paris, and Kaat Debo, director and chief curator,

ModeMuseum (MoMu), Antwerp (Oct-Nov 2019) reflected on how subjective and risky acquiring fashion can be and identified the challenge of the right time to capture that design moment. Ehrman (2019), reaffirms that timing is crucial, '…we often don't get the designers at the right stage in their careers. We wait too long.' This emphasises the narrow scope in which curators work when capturing and translating that moment of fashion design history as significant to the history of design.

4.4 Documenting authenticities and postmodern fashion

Conserving the authenticity of fashion requires debate. When working with designers, there remains a binding link between authenticity, original condition, appearance and intention, as Alexandre Samson, curator, Haute Couture and contemporary design, Palais Galliera, explains, '…when you are working with [the designers], you notice that they want you to show pieces that are brand new, or that looks fresh at least.' The pristine, as new, condition of a dress object is often perceived as its original condition when it was made. Recently, this approach has been considered as too objective and scientifically determined, creating a fictitious aim to follow a 'truth-enforced operation' (Muñoz Viñas 2005: 81). Personal choice, or subjectivity can also be employed to determine the material authenticity of an item, enacted through engaging with the artefact through conservation practice (Muñoz Viñas 2020: 29). Material engagement between the conservator and the artefact can be complex, the process of engagement is often undocumented, the preferencing of perpetuity being the most valued outcome of conservation (Henderson 2020: 10). Attempting to conserve postmodern fashion, encompassing transient properties with a view to longevity, can be a rigorous and resource rich task. The freshness and newness of a fashion artefact are elements that can be reinstated to a degree through physical intervention, repair or reproduction (Morris and Keneghan 2011: 111-117). However, these acts of simulation fail to reverse the 'signs of time' (Verhelst and Debo, 2008) nor to return the artefact to its moment of inception. The artefact has undergone various changes, both physical and conceptual, through acts of performance, merchandising, wear and conservation, after the designer's intention has been realised, gathering different authenticities. The future authenticity of fashion artefacts may be considered as temporal moments of material engagement where museum staff recollect and reinterpret designers work knowing that elements of the artefact have or are expected to change with time (Hölling 2016: 17).

4.4.1 (Re)Balancing documentation

Priorities can be different between conservators, curators and designers. Designers may have a clear idea of the key look in their collections, and this can sometimes conflict with the practice of historical interpretation being the main focus of museums (Pearce 1994: 2). Documenting the authentic moment, in this sense, can become multi-faceted if the designer is present in the

selection process. This may not solely reflect the collecting decisions, policies nor the signature style of curators. Samson and Debo (2019) reaffirm the business strategies of designers are often the focus whilst working with them on exhibitions and not the 'curationism' (Clark and Vänskä 2018: 9) that is trying to reflect on their practice. Samson claims that whilst working with the Gucci fashion house '… Alessandro Michele wants to pick his own pieces, you make your selection, but he's not going to respect your selection'.

Reflecting on design practice in fashion is difficult because it is not a priority of the designer. However, it is a predominant factor for the conservator and curator to accomplish their roles to interpret fashion history. The values of active designers are often associated with current creative research and production as they are always looking to the future (Cullen 2019; Debo 2019). This presents challenges for conservators working with postmodern materials because they must negotiate the creative freedom of the designer together with the archival expectations of the curator (see Section 4.3.1). It often requires evidence of material change through degradation to initiate a conversation about future interpretation (see Chapters 6 and 7). Signs of degradation are often accepted as being 'non-beneficial' (Henderson 2020: 197) to the artefact and this 'negative evaluation' (Ibid) can be transmitted to the conservation of postmodern materials, which prohibits collecting and conserving them because of the standard approach to decay and loss. Sarah Glenn, Accredited Conservation-Restorer, (ACR), independent practitioner, fashion conservation, (former senior textile conservator, V&A), recognises a conflict of interests and lack of debate for postmodern materials and fashion artefacts when working with traditional archival mandates.

> [A Sputniko, Tranceflora dress] didn't go in *Fashioned from Nature* [exhibition]. It was made from bacteria [a genetically engineered silk] (…), from organisms that live very deep in the sea and (…) and photo luminesced (…). And the cumulative effects of light damage meant that it didn't luminesce as well as we thought it might. (…) It was collected [by the V&A] for that reason. [The dress] was sort of lost [degraded]. (…) And now it probably can't ever really come out because it's wrapped safely within photographic black out paper. Never to see the light of day. But then that raises an interesting point (…). If you have collected it for the performative [aspect of the] material and it [has become] damaged and degraded, so fast (…). I don't think it had been in the collection [that long], [never] been displayed. It had been in [storage] but it had degraded so much in that time that it didn't full fill its function [as a museum object].
>
> Sarah Glenn, ACR. 2019.

To develop this debate the author noticed that Muñoz Viñas (2005: 81) mentions an 'unspoken material theory of conservation' as being restricted to scientific evidence and the physical being of the artefact. Debo (2019), chief curator and director, MoMu, warns of potentially supporting outdated perspectives on dress archives by following the 'rule' of degradation and loss by effectively postponing postmodern fashion historical narratives for current users.

> We have a jacket of [by] Martin Margiela that has a coating [polymer-based]. And it's deteriorating so we don't have a treatment now, but we are now keeping it in an oxygen free environment which stops the process of deterioration. And, of course, there are pros and cons, because people say, yeah, okay, but you cannot keep all these objects in these oxygen low environments. If I don't have the treatment now, it's trying to keep them in a condition that stops the [deterioration] process and hoping that we will find treatments in five years, ten years, twenty years. If not, if we don't find those treatments, I also don't have a strategy of what to do with these objects.
>
> Debo. MoMu. 2019.

4.5 Authentic states of postmodern materials

High designers pushing of material boundaries, certainly in Haute Couture, can be seen as a 'testing ground' for new fabrications. Iris van Herpen, fashion designer, expresses her material engagement with high fashion:

> [Combining] the laboratory and the Haute Couture [helps] find out things [about] develop[ing] a new material, technique or new silhouette or anything.
>
> van Herpen, SHOWstudio. 2013.

The quiddity of a designer can be challenging to document in conservation practice because reasons for material selection are not always recorded or made available to the conservator. This situation emphasises the original aesthetic as the historical and conceptual essence (Scott 2015: 294), which becomes the overwhelming positioning for conservation and curatorial decision making. Yet, this does not represent what could be understood as material authenticity. More technical materials, for example, E-textiles and digital fashion with encapsulated electronics, may require different iterations in elements to (re)activate in the future to help sustain the interpretation of functional and aesthetic properties.

> …the role and meaning of technological artefacts is continuously shaped and reshaped through our practical dealings with them. It therefore does not speak of artefacts in terms of functions and signs but understands them in terms of how they mediate human perceptions and actions.
>
> (van Dongen et al. 2019: 3)

These are all transient elements integral to the constituents of the materials and often lessen the cultural value in contemporary fashion history because of the decision to replace, reproduce or relegate to storage. Netta (Reinette) Krumperman, coordinating conservator of applied arts & design, Stedelijk Museum, Amsterdam, reiterates the questions she would ask herself when anticipating material change as being part of the material properties of an artefact being considered for acquisition.

> What happens in ten years' time? Do we want something like that [artefact that degrades due to the designer's material choices]? Is that something we should ask when you

> acquire a piece like that? How far will you allow this to disintegrate? Will that be part of what you want to collect and register perhaps? Is that part of what is interesting about the object and the concept? And the choice of the designer to use that material.
>
> Krumperman. Stedelijk Museum. 2019.

Krumperman recognises that the material authenticity of some new textiles and technologies is not reliant on a state of stability and that they undergo progressive changes in their properties. Building strategies to help document and anticipate change is important for conservators to manage expectations and create an understanding that as the condition of the material changes so does its authentic state.

4.5.1 Aesthetic life of postmodern materials

While 'fashion' constantly reinvents itself and is transient in terms of its conception, there is a paradoxical, cultural expectation that its physical outcomes should remain fixed. As a result, conservators are pressured by the instantiation of fashion. The expectation for beauty in fashion is high and is an inherent property of aesthetic value which is subject to constant change and differences in interpretation. Entwistle (2002: 321) states: 'aesthetic economies have their own particularity. They are more nebulous since at first glance they seem far more 'subjective', immaterial or effervescent and thus far less 'stable' and 'qualities of aesthetic content change, as any history of art or design illustrates'. These ideas are reflected in a postmodern cultural era that has influenced fashion through the emergence of wider and more inclusive understandings of aesthetic appreciation 'through its rejection of tradition, its relaxation of norms, its emphasis on individual diversity and its multiplicity of styles.' (Tseëlon 2016: 220).

Contemporary designers working with state-of-the-art materials can present challenges to professionals in fashion heritage who have the responsibility to conserve and interpret the aesthetics of their work to a wider cultural community. This scenario can influence a museum's decision not to acquire an item, select for display or subsequent archival treatment, even if the artefact is in good condition, based on its material properties (see Section 4.2.1). Pre-empting changes in a fashion artefact based on material-led values, therefore creates barriers leading to the isolation of certain materials due to potential loss of aesthetic agency (Malafouris 2011: 126).

4.5.2 A situated aesthetic approach

Towards the development of the MET, Malafouris wrote an essay on 'The aesthetics of material engagement' (2011: 123-139) which explores a less epistemological approach to reimagine 'our aesthetic presumptions, in the common sense of taste and beauty' which 'can be a great obstacle when examining the aesthetic agency of things or artworks' (Ibid: 126). This approach helped the author to develop aspects of a MCT for postmodern fashion artefacts that could appreciate a wider and more inclusive understanding of aesthetics as recognised through the evolvement of

style in ‘the postmodern stage’ (Tseëlon 2016: 220) of fashion today. Malafouris (2011) encourages ‘a situated aesthetic approach’ that enables different forms of aesthetic experiences to exist and to be inhabited to achieve fuller, wider and extended material engagement with an artefact (Ibid: 126).

Jo Cope, a conceptual designer, expresses how she actively engages with materials through her skills as a cordwainer, which provides some insight into her aesthetic experiences that can be considered as ‘embodied aesthetic’ practice.

> I allow myself to imagine whatever is [present] in my mind’s eye, I have to work out how I make [the artefact]. (…) Sometimes, it’s like, I’ve got to find a new way of working, [therefore] I’ve got to find a new material. (…) Things like leather can create that stretch and relate to skin, can become seamless. I’m extending traditions. But I’m making materials do things that they’re not necessarily meant to do. And each time the challenge [is thinking] I don’t know how to make it, but I’ll find a way of making it. And then I work through the materials.
>
> Jo Cope, artist. 2019.

Designers like Cope, want the wearers of their creations to relate to the mental and physical craftsmanship involved, metaphorically and practically, by delivering a heightened experience which may involve dynamic new materials. In constructing a ‘situated aesthetic approach’ Malafouris describes an aspect of this approach of ‘enactive discovery’ (Malafouris 2011: 130-31) acknowledging the ‘act of embodying’ as ‘situated praxis as a trajectory of material engagement’ (Ibid: 131). Therefore, the mental and physical stages of creative practice are intertwined and inseparable and cannot be represented as a fixed end-product (Pallasmaa 2009). Through ‘enactive discovery’ different aesthetic connections could allow for fashion conservation and interpretation to transcend from the immediacy of the original aesthetic of the fashion artefact. Kate Fletcher (2016) acknowledges that aesthetic obsolescence is the main outcome of the contemporary fashion design system, enmeshed in changing social and cultural conditions. ‘In the fashion sector the primary, though not exclusive, tool of obsolescence is aesthetics.’ (Ibid: 194). Cultural investment in keeping alive the original aesthetic choices of contemporary designers raises challenges for postmodern materials entering established practice in fashion conservation. Instead, cultural investment could encourage the high skillset and talents of fashion conservators to be redirected to a postconservation model (see Sections 6.4, 6.5 and 9.2), where a more ‘responsive documentation system’ could be developed to embrace different types of aesthetic engagement (see Chapter 7 and Section 9.4.5).

4.6 Discussion

Exploring Malafouris’ (2013; 2018) the MET and postphenomenology introduced by Ihde (2009) discourages isolated and fixed perceptions when conserving postmodern fashion artefacts (see

Section 3.7). The physical materiality of the fashion artefact currently influences the decisions made by curators and conservators of fashion (see Sections 2.4 and 6.2.1). These influences often favour material stability for preferred archival and exhibition use because it is related to objectivity, this being viewed as enabling long-term access to the artefact by museum users. This ideal has been recently criticised by conservators in the field. Privileging future uses over current users by eliminating other forms of learning and emotional engagement. One where artefacts could relate to more pluralistic and divergent values (Henderson 2020: 13, 17) such as the personal life-experiences of users. The MET and postphenomenology framework relate with Henderson (2020) in that 'mental events do not occur in a vacuum' (Malafouris 2018b: 12), they are components of lived experiences, and therefore, are not neutral. This aim for neutrality through the stability of materials can limit the potential of creating material relationships between users and their environments. (Re)balancing conservation documentation to consider wider material engagement of fashion artefacts may widen the scope of fashion museum users. These theoretical insights help develop the use of the term 'Designer Intent' in the context of authenticity to be a hybrid concept. One that extends beyond a physical dependency and materiality, where designing and presenting fashion often resides.

'…intentionality is construed as a strictly internal phenomenon of human consciousness with no counterpart in the realm of things.' (Malafouris 2013: 137).

To conserve the authenticity of postmodern materials and fashion artefacts a 'postconservation' approach is suggested as a methodology to conserve 'Designer Intent'. These aspects would contribute to a new Material Conservation Theory (MCT) that considers temporal aspects of postmodern materials. The ones that can present transient, changeable and impermanent material authenticities (see Section 4.2.1) that often do not comply with traditional authentication processes (see Section 4.3). Meaning these materials can be aesthetically experienced by a wider audience as part of the users' authentic moments.

4.7 Summary of key findings

- Material Engagement Theory (MET) and postphenomenology helps connect authenticities to the material trajectories of some postmodern materials.
- Some current users of postmodern fashion heritage are disregarded because of fixed notions of material authenticity and aesthetic understanding.
- Documenting 'Designer Intent' as part of a postconservation approach could translate authenticity of postmodern fashion beyond that of the artefact.

Chapter 5.0 Object studies in conserving authenticity

5.1 Introduction: object study

To evidence the ideas discussed in Chapter 6 the author uses object studies to observe and further analyse ideas of transient, unfixed notions of 'Designer Intent' and the different authenticities of postmodern materials. As sections 4.1 and 4.2 suggest, the authenticities of fashion artefacts are often viewed from a curatorial perspective, by representing the creative output of a designer at a given point in time, as accurately as possible. The time devoted to object studies enabled the author to utilise the Material Engagement Theory (MET) and postphenomenological informed methodology (see Sections 3.2.3 and 3.2.4) as a way of documenting the condition of a series of fashion artefacts. The object study is a practice-led approach that considers relational ontology as part of historical documentation (see Sections 7.5 and 9.2.1).

The three object studies illustrated below were examined, using the visual impact of the instabilities and qualities in fashion artefacts made with polymer-based materials. These types of materials present common challenges to dress archives, because of their often-quickening chemical breakdown and degradation (de Sá et al. 2014: 193-203). The condition of polymer-based fashion artefacts may reach a point where the original aesthetic of the designer is no longer fully represented. Changes in material properties can affect aesthetic expectations and curatorial interpretation, sometimes causing archival isolation. Brief object records provide details of each artefact, including attribution, construction and overall condition (see Section 5.1.1). Each object study is analysed from three perspectives: 'material authenticity' to show the diverse and visual characteristics of postmodern materials; 'material relationships' to demonstrate and acknowledge diverse users engaging with material change; and 'aesthetic experiences' to examine the plasticity of material engagement of postmodern fashion artefacts.

5.1.1 Set of guidelines for object study

Some of the most common terms used to describe artefact conditions in museums are listed below. These definitions listed here are to provide some clarity for the forthcoming object studies in Sections 5.2, 5.3 and 5.4 and Chapters 5, 7 and 8.

Poor: very fragile, not strong enough for display, showing significant signs of degradation.

Poor to fair: very fragile, significant conservation treatment required for display purposes, showing significant signs of degradation

Good to fair: stable, some conservation treatment required for display purposes, strong evidence of wear and tear, showing some signs of degradation.

Good: stable, strong enough for display with minimal conservation treatment, some evidence of wear and tear, showing some signs of degradation.

Excellent: like new, little evidence of wear and tear, no signs of degradation.

5.1.2 Selection of objects

All objects discussed in this chapter, and Chapters 7 and 8, have been selected based on the outcomes of data analysis of the interviews undertaken for this research (see Section 3.6). The first object study is a Duvet Coat, with a poly vinyl chloride (PVC) cover comprising a thermoplastic polyurethane (TPU) blend (de Sá 2017: 227) by Maison Martin Margiela, A/W 1999-2000 (see Figure 26). The PVC cover has undergone significant discolouration and differs significantly from the original white garment (MMM shows 2020; Verhelst and Debo 2008: 9-10). The current condition creates a basis to examine ideas of authenticity and the transient notion of 'Designer Intent' in fashion artefacts (see Section 4.2). The second object study is a Kaleidoscopic Perfectos Dress made of a photosensitive print by Kunihiko Morinaga for by ANREALAGE, S/S 2016 (see Figure 27). The print is made visible with the flash of an iPhone camera, this image links ideas around interpreting and conserving the instantiation of fashion. A Plain PU Cover and Woollen Tweed Coat is the final object study, the cover is made of an aromatic polyurethane (PU), by Raf Simons for Calvin Klein, A/W 2017 (see Figure 28). Similarly, the Margiela ensemble was prevented from being exhibited due to changes in the condition of the Plain PU Cover. The visual transition in the condition of the PU and the consequences of those changes encourages discussion on the perception and experience of the aesthetics of postmodern fashion artefacts. The Simons ensemble develops ideas of the interrelationships between conservators, curators and audiences to continue to identify with contemporary fashion artefacts beyond the signs of degradation. This chapter attempts to clarify ideas for approaches to support a comprehensive Material Conservation Theory (MCT) as new criteria to conserve and interpret 'authenticity'. The Margiela and Simons ensembles, the digital translation of the ANREALAGE dress and the consequences of these shifting materials encourages reappraisal of the aesthetics of fashion artefacts.

5.1.3 Object examination

Restrictions caused by the COVID-19 pandemic in 2020 meant that in-person examinations of the artefacts discussed below were impossible. Consequently, virtual meetings were arranged between the author and specialist staff from the respective institutions to undertake interviews and access the artefacts remotely. A request was sent to Frédéric Boutié, Collection Department,

MoMu, Antwerp, to access the Margiela and Simons pieces. The author e-mailed a list of the artefacts and components to the respective collection care staff who agreed to examine, record and photograph the artefacts on the author's behalf. The virtual session consisted of one registrar of collections who was able to discuss and aid in documenting aspects of the selected artefacts. Boutié, effectively, acted out the conservators' usual sensory practice, using touch, hearing and smell to describe the construction, textures and odours in real-time. An exchange of ideas on the condition, artefact uses, reasons for acquisition and challenges with display and interpretation added to the co-examination of the object study. The use of iPhones and laptops enabled close viewing of the condition of the objects. The author was also able to listen to the sounds that the material created through gentle stroking of the surfaces, facilitating virtual access to the properties of the materials.

Professional conservation documentation was shared by the textile conservator at Palais Galliera, Paris, responsible for the care of the ANREALAGE dress. Additional close-up photographs of the materials (see Figures 36 and 37) were provided by e-mail, to aid the authors' understanding of the characteristics of the dress, as well as information on the potential properties of the material.

Object study 1: Duvet Coat by Maison Martin Margiela, A/W 1999-00

Figure 26. Plastic cover to the duvet coat designed by Maison Martin Margiela, A/W 1999. Mode Museum, Antwerp. c.1999. (T99/32). Image: ©Collectie Modemuseum Antwerpen.

Object study 2: Kaleidoscopic Perfectos Dress by ANREALAGE, S/S 2016

Figure 27. Front of kaleidoscopic perfectos dress (with camera flash) designed by Kunihiko Morinaga, ANREALAGE, S/S 2016. Palais Galliera / Ville de Paris. c. 2015. (GAL2019.4.2.1 à 10). Image: ©Palais Galliera / Ville de Paris. 2019.

Object study 3: Coat with Plain PU Cover by Raf Simons for Calvin Klein, A/W 2017

Figure 28. Tailored tweed coat with plain plastic cover designed by Raf Simons for Calvin Klein, A/W 2017. Mode Museum, Antwerp. c.2017. (T17/877AB). Image: ©Collectie Modemuseum Antwerpen, Image: ©Stany Dederen

5.2 Object study 1: Duvet Coat by Maison Martin Margiela, A/W 1999-00

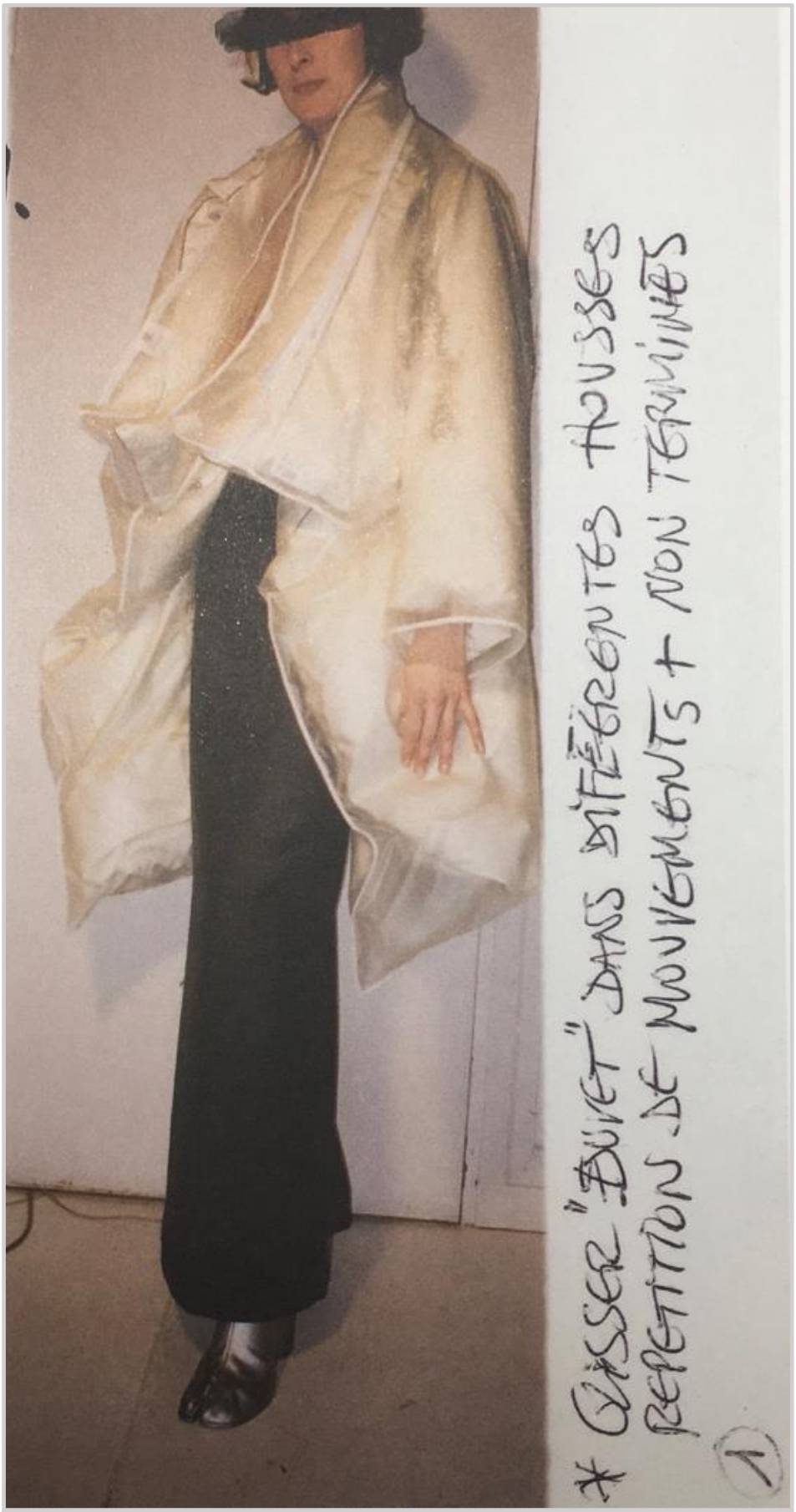


Figure 29. Duvet coat with plastic cover designed by Maison Martin Margiela, A/W 1999-00. Image: Samson, A. 2018. *The Women's Collection 1989-2009: Martin Margiela*. New York: Rizzoli Electa.

Figure 30. Current condition of the plastic cover to duvet coat as documented in July 2020. Designed by Maison Martin Margiela, A/W 1999-00. Mode Museum, Antwerp. c.1999. (T99/32). Image: ©Frédéric Boutié, MoMu, Antwerpen. 2020.

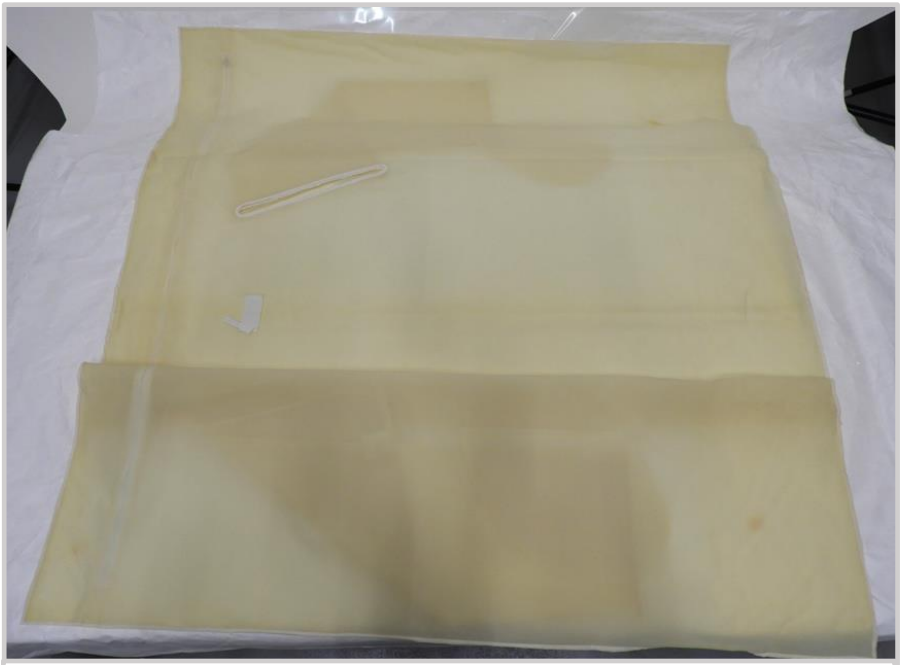


Figure 31. Plastic cover without the duvet coat as documented in July 2020. Designed by Maison Martin Margiela, A/W 1999-00. Mode Museum, Antwerp. c.1999. (T99/32). Mode Museum, Antwerp. c.1999. (T99/32). Image: ©Frédéric Boutié, MoMu, Antwerpen. 2020.

Brief object record:

Object No: T99/32, Mode Museum (MoMu), Antwerp, Belgium (Figures 26, 29 and 30).

Designer/maker: Maison Martin Margiela.

Object name: Duvet coat.

Date: c. 1999.

Attribution: Part of the Maison Martin Margiela 'artisanal' line of the 1990s attributed to their white phase of design.

Brief description: Soft white duvet jacket with detachable sleeves, filled with feather down (Figure 29). A printed label positioned in the inner proper right corner reads 'Featherlite 100% down-filled' (Metropolitan Museum of Art 2020). A separate, transparent, plastic custom-made cover fits over the duvet coat, completely sealing it for weather protection with an upper back zipper for access. The cover is soft in texture and drape.

Materials: Cotton and down-fill (duvet), poly (vinyl) chloride (PVC) and thermoplastic polyurethane (ester) (TPU) blend (transparent plastic cover) (de Sá 2017: 227-8).

Construction: The duvet coat is made following traditional Italian Featherlite duvet manufacture with brown cotton piping around the outer edges (Samson 2018). The outer plastic cover is machine made throughout with a long nylon(?) zipper that runs along the back neck. White nylon(?) piping runs along the outer edge, cuff and pocket openings.

Brief overall condition: Good condition (see Section 5.1.1). The duvet is in good condition according to recent records relating to its loan and display for the retrospective exhibition 'The Women's Collections 1989-2009, Martin Margiela, 2018, at the Palais Galliera, Paris.[7] The outer plastic cover is structurally stable. Significant yellow discolouration resulting in various light and dark hues throughout the piece caused by photodegradation (see Figures 30 and 31). Local darker yellow and orange spot stains are evident throughout the plastic cover. The outer edge piping and zipper are white creating a strong contrast in colour against the yellowing on the body of the coat.

[7] Frédéric Boutié, 2020. Conversation with Leanne Tonkin, conference call, 23rd July. Palais Galliera, Paris loaned the piece in 2018 and museum records show the duvet was displayed without the plastic cover and is in good condition.

5.2.1 Material authenticities of the Duvet Coat

Examining the MoMu example of the duvet coat designed by Maison Martin Margiela, 1999, shows it has undergone a significant change in its appearance due to photodegradation causing yellowing throughout the plastic cover (see Figures 30 and 31). Analysis undertaken by Susana França de Sá (2017) during her PhD research of a Duvet Coat owned by the Design and Fashion Museum (MUDE), Francisco Capelo Collection, Lisbon, identifies the plastic as being a PVC and TPU blend (see section 4.2.1) (Ibid: 227). These types of polymer-based materials, amongst others, have been identified as being problematic in museums collections (Shashoua 2008; van Oosten et al. 2011; Tonkin 2019: 68-77; Rizzo and Scaturro 2021: 1-11) due to their often unstable properties and unpredictable responses to ageing. Scientific research provides an objective rationale on how and why these materials change and can interfere with the transparency of clear plastic. Chemical reactions can be caused by the disruption of the formulation and structures of polymer chains that make up the desired properties of PVC and TPU materials (Shashoua 2008: 151-192; de Sá, 2017: 227-8). Conservation science can help analyse and characterise material properties, including degradation, and contextualise them with additional research i. e. archival records specific to patents and materials' production methods (Muños Viñas 2005: 74-81; Muños Viñas 2020: 25). This scientific and academic approach can lead to an accurate identification of materials, degradation and their manufacture. However, material authenticity is not solely bound to material aspects of the reality of the artefact (Ibid 2020: 25). It is the actions of evolving stakeholders, the human and non-human aspects; the collections care staff and the condition of the artefact itself that can influence the 'cultural weight' (see Section 4.2), 'the transformation of an object, an environment and a social phenomenon' (Calefato 2019: 38) and 'the establishment of new methods of accessing archives and collections' (Briggs-Goode and Baxter 2020: 43) that could determine future archival status.

5.2.2 Authenticity

The spectrum of changes from the original white design aesthetic of the Duvet Coat creates a sense of loss in value and aesthetic influencing its translation and configuration of the past practices of Margiela. The yellowing could be considered an unexpected 'material sign' (Malafouris 2013: 117) (see Section 4.3.1) changing the direction of fashion interpretive practice to one that builds on ideas around authenticating the discolouration (see Section 4.4). This type of material engagement offers active and transient engagement through exploration between the cultural users and current and future conditions of the artefact (see Section 4.2.2). It can often be the 'artefact actions' of the museum that creates uncertainty for the future display of important postmodern fashion artefacts that have discoloured. Ideas relating to the authenticity of them can present different challenges when interpreting them as part of a contemporary social discourse (Debo 2018: 77). Susanna de Sá, conservation scientist, Universidade NOVA de Lisboa,

Portugal, responds to the limitations of the conservation field honouring fixed illusions of material authenticity as a representation of a 'postmodern stage' of fashion artefacts.

> (…) I think it's like a defect of our profession, when we see something that [is] degrading our focus goes into that. And sometimes we forget the things around that are also very important.
>
> de Sá, Universidade NOVA de Lisboa. 2019.
>
> .

de Sá, refers to the traditional point of reference to degradation for conservators when caring for degrading cultural artefacts. A desire to intervene, look backwards to a time when the degradation was not part of the condition. de Sá points out the lack of appropriate understanding and investment in working with current (and potential) postmodern material ecologies that support both natural and cultural heritage. Where managing fashion heritage is not about recuperation but change as part of a 'future-oriented practice' (DeSilvey 2017b: 20) that considers degradation as a sometimes-necessary condition of postmodern fashion artefacts

5.2.3 Material relationships

The changes that have occurred to the plastic cover go beyond the original intentionality of Margiela because 'things cannot exhibit intentional states' (Malafouris 2013: 137). Meaning the material authenticity of the Duvet Cover is different to that of once understood by Margiela. Caroline Evans (2003) uses concepts of 'Now-Time' (Ibid: 293) to include elements of 'unexpectedness, ephemerality and mortality' and 'spoiling' (Ibid: 307) to recognise 'abjection, alienation and decay' as notions that actualise engagement with artefacts and their environments. Similarly, cultural environments, like MoMu, could consider the yellowing of the cover to engage and guide their museum users with artefacts that were products of an era of rapid technological change in fashion (Evans 2003: 305). This type of material engagement could be an ethical and honest way to conserve and interpret material stories related to postmodern fashion. Furthermore, by developing these types of 'honest material relationships' between the uses and users of the duvet cover will maintain the historical view that fashion is a subject of 'modernity and post-modernism' (Evans 2003: 304). This fashion interpretive approach allows different material values to emerge, providing cultural stakeholders with a sense of the 'true materialism' (Fletcher 2016: 140) of the Duvet Cover. The discolouration is not viewed as a negative attribute but one that displays 'a deep appreciation and respect for intrinsic material qualities' (Ibid: 140) of postmodern materials. In addition, there is a change in how contemporary fashions are viewed preventing idealistic, unattainable perceptions for the viewer. Making Momu's gallery spaces a place where postmodern materials can be cherished (Ibid: 141) conserving the Duvet Coat as 'a true point of pride' (Samson 2018: 86), and an important link to the contribution of Margiela to postmodern fashion culture.

5.2.4 Aesthetic experiences

The transparent function of the piece that is part of the white oeuvre connected to Margiela is changing with age, potentially influenced by other environmental factors. This change is likely to continue making the artefact increasingly unable to be displayed due to culturally specific agendas related to aesthetic display (see Section 4.5). Muñas Viñas (2005: 84) positions aesthetic enjoyment as relative, 'It is not aesthetic enjoyment what is expected, but a different experience' that people expect when engaging with an original artefact. The effects of the degrading Duvet Coat can be viewed as creating aesthetic relationships between the artefact and the attention of the viewer placing emphasis on the notion of 'attentional values' for the cultural user (Llamas-Pacheco 2020: 4). Identifying the existence of these interrelationships acknowledges 'it is not the object alone that carries the artwork' (Ibid), but the continual aesthetic experiences of the Duvet Coat. The plastic cover is no longer transparent, nor white, as recorded in 1999 and created by the designer and has perhaps become undesirable for museum display[8]. These material circumstances often make fashion artefacts deficient and non-interpretable despite the important moment, the artefact represents. Current and future users of the Duvet Coat, as newcomers learning about Margiela and his contributions to pre and post millennial contemporary fashion, will not remember the original whiteness of the coat. Therefore, they can develop their own aesthetic experiences as material memory.

Sections 5.6 and 6.4.2 introduces the usefulness of employing a proactive documentation system in conserving 'Designer Intent'. A toolkit is suggested by this research as a beneficial way to proactively record these variable aspects of authenticity and other elements in relation to 'Designer Intent' as discussed in Chapters 4-8. Each main object study will include the usefulness of using the toolkit at the end of each discussion. For example, by utilising the toolkit (see Section 9.4) as a form of proactive documentation (see Section 5.5) to assess Margiela's perspectives on the discolouration of the Duvet Coat will add to the material trajectories of it. Thus, increasing diverse material engagement by introducing new perceptions of his white oeuvre

[8] Frédéric Boutié, 2020. Conversation with Leanne Tonkin, conference call, 23rd July. Confirmed the PVC TPU cover had remained archived for a long period of time.

5.3 Object study 2: Kaleidoscopic Perfectos Dress by ANREALAGE, S/S 2016

Figures 32 and 33. Front (left) and back (right) of Kaleidoscopic Perfectos dress (natural light) designed by Kunihiko Morinaga, ANREALAGE, S/S 2016. (GAL2019.4.2.1 à 10). © Palais Galliera / Ville de Paris. 2019.

Figures 34 and 35. Front (left) and back (right) of Kaleidoscopic Perfectos dress (with camera flash) designed by Kunihiko Morinaga, ANREALAGE, S/S 2016. (GAL2019.4.2.1 à 10). © Palais Galliera / Ville de Paris. 2019.

Brief object record:

Object No: GAL2019.4.2.1 à 10, Palais Galliera, Musée de la Mode de la Ville de Paris, Paris, France (Figures 27, and 32-35).

Designer/maker: Kunihiko Morinaga, ANREALAGE.

Object name: Dress made of kaleidoscope perfectos with photosensitive prints and removable shoulder pads.

Date: c. 2015.

Attribution: Ready-to-wear, spring-summer 2016, REFLECT collection.

Brief description: Short, cream coloured dress with zippers on the upper front chest. 'V' neck at the centre front (CF) and centre back (CB). Open shoulders with long sleeves. CB 'V' shaped split at hem. Off-white cotton canvas coated with photosensitive polyurethane prisms (Samson 2019), with kaleidoscopic inspired pattern made visible with a camera flash. The pattern consists of shades of violet, blue, green and yellow. Polyester wadding on the inner garment.

Materials: Cotton canvas coated with kaleidoscopic inspired pattern made visible by a camera flash. The material property of the coating is unknown but shows similar properties to polyurethane.[9]

Construction: The dress is made from six motorcycle jackets with removable shoulder pads. The coats are symmetrically positioned. The collars and revers are positioned at the shoulders, sleeve openings and lower side seams.

Brief overall condition: Good condition. Yellow discolouration has occurred on the outer surface.[10]

[9] Brun, S. (sylvie. brun@paris.fr), 2020. *Artefact Information.* 2 December 2020. Email to: Leanne Tonkin (leanne.tonkin2017@ntu.ac.uk).
[10] Samson, A. 2019. Alexandre Samson, Haute Couture and contemporary design, Palais Galliera, Paris: Interview with Leanne Tonkin, telephone, 27th November 2019.

5.3.1 Material authenticities of the Kaleidoscope Perfectos Dress

The Kaleidoscope Perfectos dress designed by Kunihiko Morinaga for the Japanese brand, ANREALAGE in 2016 and shows the social importance of the catwalk in delivering a design moment worthy of collecting. Alexandre Samson, curator, Haute Couture and contemporary design, Palais Galleria, confirms:

> (…) it was a huge manifesto. I took [the ANREALAGE dress] because it was a manifesto. And it was a manifesto (…) of [the] times because when they did this show. We all wore [headphones] with the music on so we couldn't talk with each other. And we were all with our phones to take flash of the pieces in photo. [I] was very touched by this proposition.
>
> Samson. Palais Galliera. 2019.

The artefact, along with the rest of the collection, demonstrates the transformative qualities of postmodern materials which can inspire the curator to collect (see section 4.3.1). The use of an iPhone with a flash enabled the viewer to document the polychrome patterning that otherwise remains invisible without the flash. Translating the patterning can only be achieved using every day, portable technology. An iPhone enabled the decorative aspect of the design to be captured and made visible. This digital-material interface is an 'embodied and situated' (van Dongen et al. 2019: 2) experience for the curator who employs a postphenomenological approach through mediation between artefacts, human experiences and the environment (van Dongen and Toussaint 2020: 113). The roles of human (the conservator, curator, owner, wearer and viewer) and nonhuman (the iPhone) are technologically bound and essential for recording, archiving and interpreting, creating different anthropological histories and 'embodied practices' (Ihde 2009: 42; van Dongen et al. 2019: 1) of such fashion artefacts. The realisation of its visual and material qualities as intended by the designer are reliant on the application of digital technology. The notion of immediacy and temporality in fashion becomes apparent because of the 'cognitive demands' on the user (Howells and Negreiros 2019: 332) to view the decorative patterning of the dress. These elements are part of the designer's creative process when activating peoples' desires and emotions are key to the fashion experience.

5.3.2 Authenticity

As Samson (2019), Palais Galleria, claims in Section 7.3.1, the designer intended to deliver a heightened experience, to translate excitement and energy, making the role of the senses important to the designer and the curator. This is an important asset of 'fashion engagement' (see section 4.3.1.1) that may support conservation practice in authenticating the artefact, by recording its aesthetic translation combined with documenting 'Designer Intent' and material properties. The senses are crucial to comprehend material characteristics where fashion memory through material engagement (Tonkin et al. 2022) has become critical when acknowledging the importance of continual and dynamic encounters (Jones 2004: 174). These are material

authenticities which are part of the 'fashion commodity' where 'the fashioned garment circulates in a contemporary economy' (Debo 2018: 77). In the future, digital recording devices, similar to the iPhone 5-13 may be required to activate and enable conservation and interpretation of the Kaleidoscope Perfectos Dress. Photographic documentation and video footage of the dress from the collection exist for reference (Tokyo Fashion film 2015), without this, potentially the dress may be viewed only in its basic fabric state.

The use of flash contravenes museum standard light levels in exhibitions. The current standard is 50 lux (Thomson 1994: 25) making it challenging for conservators and curators to interpret the patterning of the material. Even within standard lighting parameters, the coating is polyurethane (PU), which can remain vulnerable to deterioration due to constant light exposure and/or fluctuations in relative humidity (RH)[11] (see Section 2.2.1). These standards can limit the material engagement in fashion exhibitions, increasing the ongoing debate when considering visitors' experience 'of the sensorial potential of garments and further understanding of fashion materiality beyond mere wearable objects' (Percorari 2018: 183). Static representations continue to be an issue when exhibiting contemporary fashion artefacts because they lack the bodily presence to show the full dynamic of the artefact (Ibid; Debo 2018: 79). This argument extends and relates to the 'expert-driven' use of archives where different relationships between artists and archives can 'activate archives' as open, exploratory and debateable (Briggs-Goode and Baxter 2020: 43). Postmodern materials and fashion artefacts are problematic as a result of the damage, condition and duration that can be caused. However, as in this object study, it is the unstable quality of the material that has made them desirable to collect and document as significant in postmodern fashion history.

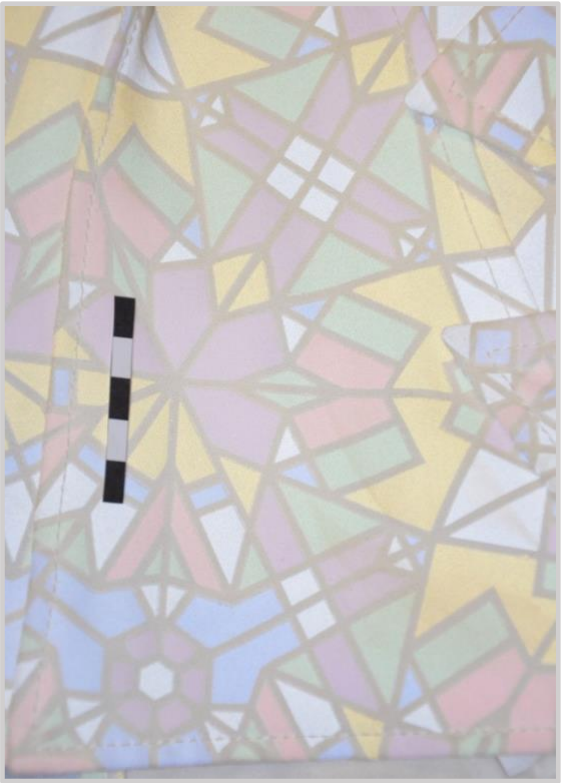
5.3.3 Material relationships

Ingold (2007: 2) argues that 'to understand materiality (…), we need to get as far away from materials as possible'. In the ANREALAGE fashion show, the environment purposefully enables the Kaleidoscope print to become understood through material engagement where the material itself, does not exist in the moment; it is the process and relational attributes of the material (Ibid: 14). The moment the curator selected the piece, is part of the history of the Kaleidoscope Perfectos Dress, the experience the material enacted and the connection to the contemporary digital environment. This acquisition shows a shift in curatorial criteria that transgresses the properties of the static physical substrate; the material experience of fashion artefact encouraging selection.

[11] Relative Humidity (RH) is the measurement of water vapour in the air compared to how much it could hold at a given temperature.

Discussion with Samson (2019), curator, Haute Couture and contemporary design, Palais Galleria, exposes aspects of failure in current museum strategies in supporting 'Designer Intent' and material relationships to accommodate 'an ultra-connected audience' that engages with fashion heritage through digital technology, he claims that 'the dress questions the photophobia of fashion museums'. Monitoring and managing museum environments as indicators of tangible artefact safety (Henderson 2020: 197) conflicts with the cognitive, social and cultural effects of the Kaleidoscope Perfectos Dress that engaged and inspired Samson. Conserving only the tangible aspect of the dress prevents the intended digital-material engagement, the experience of the print, losing sight of the actual value of the dress being protected. Identifying different levels of material interaction as part of 'Designer Intent' could form part of the future care of the dress. Current conservation documentation of the Kaleidoscope Perfectos Dress records the two different levels of material engagement and, in this case, documentation of identical areas to show the effect of the photosensitive print (see Figures 36 and 37).

Figures 36. Detail of photosensitive print on the Kaleidoscopic Perfectos Dress (natural light) designed by Kunihiko Morinaga, ANREALAGE, S/S 2016. (GAL2019.4.2.1 à 10). ©Palais Galliera /Ville de Paris. 2019.



Figures 37. Detail of photosensitive print on the Kaleidoscopic Perfectos Dress (with camera flash) designed by Kunihiko Morinaga, ANREALAGE, S/S 2016. (GAL2019.4.2.1 à 10). ©Palais Galliera /Ville de Paris. 2019.

Tim Ingold (2007) highlights the importance of material qualities as central to creativity, '…it is not only the properties of materials that an artist or craftsperson seeks to express, but rather their qualities' (Ibid: 13). The dress exemplifies the need to develop new, more open approaches to conservation and curation that mirror the responsive nature of the artefact as a digital social

phenomenon, rather than documenting and storing something lifeless (Calefato 2019: 38), as the photographic documentation above suggests. Debo (2019), chief curator and director, MoMu, observes the subjective nature of collecting fashion artefacts when trying to consider multiple fashion engagements for current and future users. Considering diverse material relationships with the artefact could prevent the act of conservation and curation from fixing authenticity, therefore 'Designer Intent' to the physical materiality of the artefact.

> I think for every object you acquire there are different reasons why you acquire it. You always ask yourself the question, what will be the relevance of a certain piece in ten, twenty may be a hundred years? But it is very difficult to predict what will be the historical relevance of an object. It's something you, I think, never really predict.
>
> Debo. MoMu. 2019.

5.3.4 Aesthetic experiences

Recording the experiences of the catwalk show could see contemporary fashion artefacts exist as an idea without the need for continuous materialisation (Llamas-Pacheco, 2020: 8). Similar concepts are being explored in fashion design theory where the relationships between 'products and attention' through seasonal changes acknowledge the role of ongoing and intertwined narratives (Roubelat et al. 2015: 8). Documentation could engage within the digital realm, developing practices in design conservation and interpretation beyond the physical materiality of the artefact. This would make the dress a phenomenologically transparent object (Colombetti 2018: 583), whereby aesthetic experiences of the ANREALAGE dress by participants, as consumers or viewers, could be documented as material-digital narratives as part of the authentic state of the dress.

Using the toolkit (see Section 9.4) to record the design context of the ANREALAGE Dress, will document the importance of experiencing the material and the rationale as to why it is important for the dress to be presented in this way. It will also extend the legacy of Morinaga's desire to diversify his designs through a digital-material interface.

5.4 Object study 3: Coat with Plain PU Cover by Raf Simons for Calvin Klein, A/W 2017

Figure 38. Plain plastic cover component used to protect tweed jacket (in set image), designed by Raf Simons for Calvin Klein, A/W 2017. Mode Museum, Antwerp. c.2017. (T17/877AB). Image: ©Frédéric Boutié, MoMu, Antwerpen. 2020. In set image: © Collectie Modemuseum Antwerpen, Image: ©Stany Dederen.

Figure 39. Detail of clouding around the buttonhole, designed by Raf Simons for Calvin Klein, A/W 2017. Mode Museum, Antwerp. c.2017. (T17/877AB). Image: ©Frédéric Boutié, MoMu, Antwerpen. 2020.

Figure 40. Detail of clouding on the upper body and inner placket where the tweed jacket is attached with buttons, designed by Raf Simons for Calvin Klein, A/W 2017. Mode Museum, Antwerp. c.2017. (T17/877AB). Image: ©Frédéric Boutié, MoMu, Antwerpen. 2020.

Brief object record:

Object No: T17/877AB, Mode Museum, Antwerp, Belgium (Figures 28 and 38).

Designer/maker: Raf Simons for Calvin Klein.

Object name: Monochromatic Prince-of-Wales tweed coat with plain plastic cover.

Date: c. 2017.

Attribution: Ready-to-wear, autumn-winter 2017/18, Raf Simons debut collection for Calvin Klein 205W39NYC 'By Appointment'.

Brief description: Long double layered coat with double-breasted fastening. The under layer is a woven monochromatic tweed with collar and long lapels. A green coloured warp and thread runs intermittently through the Prince of Wales patterning. The top layer is a separate custom-made, plain, plastic, protective layer which is attached using buttons along an inner placket (Figure 40). The collar, lapels and centre front outer edges fit snuggly inside the plastic cover to help stabilise placement and fit. The plastic layer extends beyond the sleeve and CB lengths to create full weather protection for the woven coat beneath. The pocket flaps thread through slits in the plastic layer, exposing the woven tweed, to enable the wearer to access pocket bags. Buttoned opening using x6 round buttons.

Materials: Wool (under coat), aromatic polyurethane (PU)[12] transparent plastic cover.

Construction: The tweed under coat is made following traditional tailoring manufacture with princess line seams. The plastic cover follows the same construction of the tweed layer and is machine made throughout. There is purpose-made access for the collar, lapels and front outer edges of the tweed layer to fit into the plastic cover to create a double layer coat. The lower areas and edges of the cuff openings and the lower hem on the plastic cover are left lose and unfinished.

Brief overall condition: Fair/good condition. The Woollen Tweed Coat and the PU Plastic Cover are structurally in good condition. The PU shows no evidence of tackiness, odour or stiffening and remains soft to handle[13]. Visually the PU is showing signs of deterioration with evidence of

[12] Verkens, K., 2020. Conversation with Leanne Tonkin, e-mail, 24th November.
[13] Frédéric Boutié, 2020. Conversation with Leanne Tonkin, conference call, 23rd July.

clouding/whitening in localised areas making the clear plastic opaque (Figures 39 and 40). The clouding occurs mostly around the upper part of the body where there is close contact with the wool coat. For example, along the edges, buttonholes and lapels. This suggests a reaction has occurred between the wool and PU and exposure to high RH (Shashoua 2008). The lower part is less affected possibly due to less physical contact between the wool and PU layers. Internal air bubbles are noticeable around the collar.[14]

5.4.1 Material authenticities of the Tweed Coat with Plain PU Cover

Examining authentic states of materials like PU is becoming a common theme for museums with dress archives. A recent collaboration between conservators at MoMu, Belgium, MUDE Design and Fashion Museum, Lisbon and The Metropolitan Museum of Art, New York, with a project called *Glossy Surfaces* (Verkens 2020-23), reaffirms the overarching challenge in documenting and conserving fashion artefacts made with thermoplastic polyurethane (TPU) coatings. The Plain PU Cover and the Woollen Tweed Coat shown in Figure 34 can neither be stored nor displayed together due to a quickening deterioration of the PU cover. The complete story of the ensemble cannot be presented because of the risk of further damage to the woollen and PU coat layers. Kaat Debo (2019), chief curator and director, MoMu, who acquired the look directly from Calvin Klein in December 2017, reveals how the Plain PU Cover deteriorated at an unexpected rate. Liaising with the conservation team the decision not to display was made only two years after the ensemble was acquired. The acquisition will remain archived resulting in the artefact having no exhibition history until a solution is found. This highlights that the decision not to exhibit is a material-led decision limiting the future status of the artefact (see Section 4.2.1). As discussed in Chapter 6, short-term material change in fashion artefacts creates barriers to conservation and curation causing isolation and relegation because the artefacts are no longer displayable. They instead become reference points for research or labelled as having unique archival status. The authentic state of the Plain PU Cover becomes reliant on treatment strategies (see Section 2.4), environmental standards and choices made by contemporary archival stakeholders (conservators, curators, collection management) to support the status of it.

5.4.2 Authenticity

For the Plain PU Cover and the Woollen Tweed Coat, the role of the postmodern material, the Plain PU Cover, remains a valued archival commodity but renders the whole ensemble instantly non-interpretable. It becomes part of the orthodoxy of the archive, whereby ‘Designer Intent’, the aesthetic translation and material properties and qualities of the changing PU cover may be socially (re)constructed for current and future cultural investment. ‘When ready-to-wear fashion becomes part of a museum collection, most of the previous assumptions change, these garments

[14] Boutié, 2020.

gain a new form of authenticity' (de Sá 2014: 199-200). The ensemble could not be exhibited because of the risk of further damage to the Plain PU cover. Stabilising and maintaining the authentic state of the material becomes reliant on conservation strategies, for example, the decision not to exhibit because of the risk of further chemical reactions to support the status of the artefact. Conserving the authenticity of 'Designer Intent' of the Simons ensemble could shift the paradigm of documentation because of anticipated and quickening change in the plain PU material. Diverse forms of documentation may become essential and could include notions of a 'continuity through change' (Hölling 2015: 88), a term used to document ongoing changes in components in multi-media artefacts in archives, replacing fixed ideas of authenticity.

5.4.3 Material relationships

Acknowledging a Material Conservation Theory (MCT) (see Section 4.6) may inform fashion interpretive practice, to include intangible aspects of the changing Plain PU Cover where material relationships are integral aspects of the conservation paradigm. A 'continual identity' model (see Section 9.3) may prevent the loss of 'cultural currency' and reposition notions of authenticity in postmodern materials and fashion artefacts. In this case, replacing the Plain PU Cover may not be a viable option because the designer, Raf Simons, and his team no longer design for Calvin Klein. The ensemble is part of Simons' debut collection for the house and signifies a place in Belgian design history which was epistemologically collected by Debo as part of the collection policy for MoMu. Contemporary fashion collecting, like the Raf Simons fashion ensemble, made with a component from postmodern materials likely to change, would benefit from a model of 'continual identity' to support design histories as part of MCT that acknowledges material relationship and aesthetic experiences of postmodern materials.

5.4.4 Aesthetic experiences

Sections 6.5.1 and 6.5.2 discuss how the MET and the aesthetics of material engagement (Malafouris 2011: 123-139) help to (re)explore a less epistemological approach to aesthetic presumptions when examining the aesthetic agency of postmodern materials and fashion artefacts. The visual, chemical and anthropological changes in the Plain PU Cover connect those transcending ideas of Simons, as enmeshed and related aspects of the designer's material choices. This transitional aspect of 'Designer Intent' can be aligned with cultural uses and users, whereby the material engagement is not representational but an embodiment of relations (Ihde and Malafouris 2018: 205). The viewer is free to engage with the changing material properties and qualities of the PU where aesthetic experience becomes 'a quality of mind rather than of object and things', becoming a part of sense-making (Arteaga 2017: 2) allowing the (re)conception of degrading and changing postmodern materials. This is part of the plastic's material

authenticity, supporting the notion of 'continual identity' with fashion artefacts where expected and unexpected material changes may not hinder any 'exhibition value'.

The material change is indicative of short-term ageing that can happen with PU, this phenomenon is evident with similar looks using PU covers from the same 2017 Simons and Calvin Klein collection.[15] This observational evidence shared by Frédéric Boutié (2020), Collection Department, MoMu, during examination of the Plain PU Cover reaffirms the commonality in the characteristics of postmodern materials (see Section 4.5). These could benefit from support using an 'aesthetics as a situated process' based epistemology (Malafouris 2011: 123) as part of relational ontology (Ihde and Malafouris 2018: 197, 201) to help widen and disperse value to the Plain PU Cover (see Section 4.5). Otherwise, the Simons ensemble as a museum artefact, can limit the potential of diverse aesthetic perspectives to exist.

Recording Simon's desires on designing the PU Plastic Cover by using the toolkit (see Section 9.4) will extend the coat's heritage beyond that of the archive. The documentation of his perceptions will help museum staff widen user-artefact experiences by conserving material trajectories that began with his original intentions.

5.5 Discussion

The Duvet Coat by Margiela exemplifies that there can be differing authenticities in postmodern materials shown by the current authentic condition of the piece (Muños Viñas 2020: 19). The original whiteness of the coat was a previous authentic moment that has become a 'memory or a hypothesis, and not an actual reality' (Ibid). Fixed perceptions of the authenticity of the piece had influenced decision-making resulting in restricting dissemination of this design story. By displaying the current condition of the Duvet Coat, and conditions to come, as part of its authentic experience could be an effective tool to continue the dissemination of the original artefact. Further gaining diverse museum user relationships with Margiela and postmodern fashion history enabled by the changing PVC TPU material.

The Kaleidoscope Dress highlights the preventive nature of the museum environment. One that neutralises material relationships and aesthetic experiences by preventing the digital-material interface necessary to engage with the piece. With less emphasis on continually materialising the artefact for long-term use, ways to show the photosensitivity of the material may increase the museum user base of the dress. This will enable the embodied relationships with the viewer, as the designer intended, and why the dress was collected creating long-term memories for users. In addition, any material change that happens due to this interaction is part of enabling the material

[15] Boutié, 2020.

relationships and aesthetic experiences of the dress, whilst at the same time honouring 'Designer Intent'. This could encourage a more proactive conservation documentation (see Sections 5.4 and 9.4.2) avoiding representational relations and supporting wider memories of the dress.

The Simons PU Plastic Cover introduced the idea of 'continual identity' which encourages continuous cultural relationships between the artefact and its users (see Section 9.3). This model will allow many engagements with the artefact to be experienced by museum users as emerging technology and different possibilities of communication evolve (Muños Viñas 2020: 19). A suggested postconservation approach discourages passive or neutral ideas of material engagement, in that historical moments are 'actively shaped' (Ihde and Malafouris 2018: 299) whereby the PU Plastic Cover could continue to be exhibited, contributing to its long-term commitment to diversifying fashion memories (Tonkin 2022 et al.).

5.6. Summary of key findings

- Object study based on a Material Engagement Theory and postphenomenological informed methodology diversifies historical documentation of fashion artefacts.
- Long-term conservation of fashion artefacts can include user memories that consider aspects of authenticity, material relationships and aesthetic experiences.
- A 'continual identity' model as part of a Material Conservation Theory, supporting a 'postconservation' approach can prevent fixed perceptions of 'Designer Intent'.
- Employing a proactive conservation documentation system in the form of a toolkit could record a less representational idea of fashion artefacts.

Chapter 6.0 Conserving (un)intended degradation in postmodern fashion

> I would actually take a good picture [of the artefact] from the beginning and I think I would monitor the object every six months (…) to follow the steps of degradation. But I *think*, knowing my director, if we would have a [biodegradable] dress, it would go on permanent display [so] that [visitors] could follow the degradation process from the beginning to the ending. [This is] something [my director] was thinking about [that] maybe we could do it with the jacket of Margiela we [display it whilst it] is degrading. She said why don't we just show it so that the people can see it degrades completely. But there you have the issue that it is a unique jacket.
>
> Verkens. MoMu. 2019.

6.1 Introduction

'(Un)intended degradation' was one of the core themes to emerge from the analysis of interviews with fashion conservators, curators and designers (see Section 3.5.5). This chapter analyses this theme as an aspect of conserving postmodern fashion artefacts by encouraging a re-evaluation of the ephemeral nature of some postmodern materials; otherwise, these artefacts may not be collected as dress history and not collected because the agency of degradation commonly relates to dissociation and disconnecting uses and users to information instead of providing meaning. This chapter will attempt to reconceptualise aspects of degradation in postmodern (and postgrowth) materials, which may occur in contemporary fashion artefacts, and how and why these aspects could support developing documentation procedures to record 'Designer Intent' for ongoing archival access.

The chapter argues that (im)permanence, pre-empting loss and temporalty are aspects of postmodern fashion and therefore, part of dress history. By exploring the effects of degradation related to postmodern fashion artefacts and accessories, this chapter discusses how these aspects connect to relevant issues or events in society and the environment. Conserving (un)intended conditions of fashion artefacts as material agency are examined to assess the potential benefits and rewards for the uses and users of fashion museums. Particularly, users who are not familiar with postmodern/postfashion heritage. Current institutional protocols are analysed when working with degradation in an exhibition scenario and how this can limit potential postmodern material stories. Continuing to utilise a Material Engagement Theory-based epistemology, enables wider discussion around degradation as an emergent property that can bind multi-users with postgrowth fashion artefacts that support a postfashion system. These ideas introduce 'uncertainty' as part of conserving loss and change in fashion heritage as a method to acquire knowledge about the role of degradation in dress history. Recognising the role of biodegradation in postmodern fashion heritage emphasises the need to change museum archive paradigms to accommodate this history. A postconservation approach is recommended to support these ideas

and discussions and to encourage temporary archival protocols that connect to societal, environmental fashion heritage, one that enables wider appreciation of postmodern and postgrowth fashion history.

6.2 Material change

Material change due to degradation is 'a crucial notion' (Muñoz Viñas 2005: 101) for most conservators trying to navigate the physical existence of an artefact in an archive intended for current and future exhibitions, research and other uses. The aspect of degradation becomes more acute, if there is an expectation or an uncertainty it may happen soon, sometimes caring for postmodern materials and fashion artefacts is a precarious practice. Changes in the material can happen shortly after a fashion artefact has been acquired or exhibited because of the properties, qualities and characteristics of the material (see Section 4.1). To give an example of the immediate considerations given to material change in postmodern materials is that of the Hybrid Holism dress designed by Iris van Herpen, reprinted in 2016 (see Figures 41, 42 and 43). The dress was acquired for the *Manus x Machina in an Age of Technology* exhibition (May-September 2016) because it showed progressive material engagement between the designer, her team and collaborators (Bolton 2016: 12). Therefore, it is not the wearer, or social history that engages cultural value but the material technology of 3DP that van Herpen uses to reapproach the body by 'de-organising, de-stratifying and de-territorialising' (Smelik 2016: 173). Thinking about the consequences of the brittle nature of the material, Pollard (2004: 47-62) explores the 'unintended' and 'new materialities' that emerge with 'decay' and 'breakages' (Ibid: 450). This prompts a more ontological approach to considering material change to better interpret postmodern material properties that occur with age in time.

Figure 41. Hybrid Holism dress designed by Iris van Herpen in collaboration with architect Julia Koerner, A/W 2012-13, Hybrid Holism collection. Re-printed in 2016. The Metropolitan Museum of Art, Gift of the Friends of the Costume Institute, 2016 (2016.15a-b). Image: ©Leanne Tonkin. The Metropolitan Museum of Art. 2016.

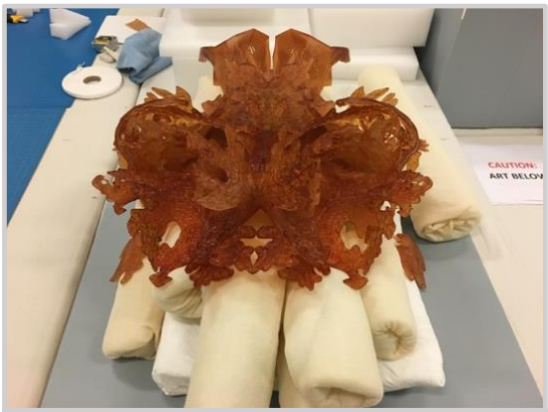


Figure 42. Hybrid Holism dress with broken pieces on lower left and right back hips. Image: ©Leanne Tonkin. 2016.

Figure 43. Hybrid Holism dress: close-up detail showing damage to the lower proper left-side. Image: ©Leanne Tonkin. 2016.

Examining the context of which the Hybrid Holism dress was collected, and the subsequent breakages shows ideas of materials not being 'static entities with diagnostic attributes' (Ingold 2007: 434) thus, provides an alternative alliance to the traditional routes of material culture when thinking about conserving postmodern fashion artefacts and 'Designer Intent'.

'Materials are ineffable. They cannot be pinned down in terms of established concepts or categories.'

(Tim Ingold. 2007: 435)

Poly (vinyl) chloride (PVC) in fashion is offers different complexities such materials can bring to museum dress archives, as Ehrman (2019) states, '[the V&A] have so many PVC garments and some acquired quite recently from high profile designers. They just stick together. You need endless silicone release paper [to store it]. But it doesn't work because people in a *hurry* they don't *understand* (…) it needs to be really, really carefully treated'. This scenario pushes the boundaries of museum policies when displaying artefacts (Glenn 2015: 241-242; see Section 5.2.3) as opposed to conserving the material authenticities of the PVC (see Chapters 4 and 5). 'Designer Intent' (see Section 4.2) becomes a tool to (re)assess postmodern fashion artefacts whereby designers sometimes acknowledge an understanding of types of material properties and material change over time (Tonkin 2017: 165). This aspect of postmodern materials often means an increase in the conservation focus of stabilising fashion artefacts as without such intervention there is a limited and restricted future as a physical artefact. Conserving physicality is where artefact value resides often making degradation a complex and challenging element to stakeholders responsible for collection care strategies (Henderson 2020: 197-198). As postmodern materials progress in postmodern and postgrowth fashion design in the twenty-first century, could these perspectives on damage be decentralised creating a more progressive approach to proactive archival practices?

6.3 (Im)Permanence in postmodern fashion artefacts

Caring for modern materials and technologies used in in contemporary fashion can become an archival dilemma. As Pritchard and Smith (2008: 137) state '…the most exciting and dynamic makers and artists are choosing to work with materials that pose, and will continue to pose, a collections management challenge. (…). If we are to build a collection that is relevant for today and indeed in the future, we must accept the degree of risk involved in collecting [modern textile and fashion]'. This is especially true for museums collecting the intentionally ephemeral. Degradation becomes a focus, which is often evaluated via scientific research to identify and characterise the potential instabilities of material properties and qualities. For example, surveying polyurethane found in dress artefacts because of common misidentification of the material (Garside and Lovett 2007: 77-83; Rizzo and Scaturro 2021: 1-11), cellulose acetate (CA) in

accessories that can degrade at significantly different rates (Tonkin and Rizzo 2017: 129-141; see Section 4.2.1) and PVC, as previously stated by Ehrman, can change instantly if mishandled, stored or displayed in unstable environments (Glenn 2015; Tonkin 2019: 68-77). These approaches combined with empirical investigation, and interventional (physical) conservation can influence the measure of success (and unsuccess) of object treatments (Morris and Kennghan 2011: 111-117; Hackett 2013: 145-160). Quickening material degradation can often heighten anxiety in conservation and curatorial practice because this can limit the potential use of the artefact. Cullen (2019), head of modern textiles and fashion, V&A, acknowledges the potential value of postmodern material heritage that is subject to museum conditioning. Signs of wear and the likelihood of further material change conflicts with the V&A collection policies resulting in reducing the impact of postmodern fashion heritage.

> (…) a fantastic designer that we worked with (…) they worked specifically in latex. (…). Obviously, with the models wearing latex [with] lube all over their body to get [the dress] on (…) the effects of that on the material and the combination [of known instabilities of latex], we decided that we wouldn't acquire the garment. That was very difficult because it was a really lovely piece and I really admire the work of the designer and they're incredibly skilled and talented, but we just don't have the resources to care for that garment.
>
> Cullen. V&A. 2019.

This type of material stability-led decision-making to museum fashion collecting may begin to intervene with designers, producers and shapers of culture as they shift the momentum of the fashion industry to support natural systems (St. Pierre 2015: 33). Some fashion designers are following sustainable design strategies in textile manufacturing, ones that challenge the growth model. For example, The Biological Atelier (SS2082 and AW2082) by textile designer, Amy Congdon (Hobson 2015) uses biotechnological advances in tissue engineering as a speculative way to develop haute couture and other product applications (Congdon et al 2020: 138-139). Biodegradable materials have characteristics favoured by some designers, who intend for their creations to remain stable in use and wear before organic disposal. 'Progressive fashion' such as this raises questions and the need for new interpretive practices within fashion conservation because of shared use with the natural eco-system that 'reveals relational sustainability' (Fletcher 2016: 220) as the fusion between the designer, wearer and the material. Stability is a key aspect for conservation and curation whilst considering the future function of the fashion artefact. It minimises degradation to suit the choices made by the curator as to how the artefact is stabilised, and therefore, fixing certain aspects of the physical nature of the object, the influence of the designer in terms of their intentions for the long-term stabilisation, and finally, the needs and demands of public exhibitions. Some postmodern materials risk being excluded because of this 'cultural capital' that mechanises fashion exhibitions despite museums belonging to an 'organic part of society' (Calefato 2019: 39).

6.3.1 Conserving degradation as an (un)intended condition

The archive helps in gathering data, 'confer a special status on objects' as 'being both of time and suspended from it' (Ibid) representing 'a complex of knowledge, values, affects and interests' (Vidal and Dias 2017: 2) within a safe place to accumulate fashion narratives for current and future curatorial use. Degradation of postmodern materials questions some approaches to fashion conservation and interpretation because aesthetic appreciation and stability are important assets for the display and loan of fashion artefacts (see Sections 4.5.1). As Samson (2019), curator of Haute Couture and contemporary design, Palais Galliera, observes this can often be where curatorially 'Designer Intent' is positioned to help protect the feelings of living designers. For example, he recalls the poor condition of artefacts made from latex collected from the S/S 1995 collection of Walter van Beirendonck, referred to as 'super major for his career' which are 'disintegrating' into 'dust and fragments'. Using these pieces as a potential fashion narrative showing the consequences of ageing in some postmodern materials used in fashion, as suggested by Samson, is not likely to happen because they no longer exist as remembered by van Beirendonck when first produced. Verkens (2019), fashion conservator, MoMu, Belgium, reflects on the disappointment from designers who engage with the impact of postmodern degradation of their work in museum archives.

> Because [Martin Margiela] he actually used a lot of garbage plastics. Plastics they would normally throw away, but they said the result was when it was stuck on the textile, he just really loved it. And we have them here [at the MoMu]. (…) it's like a very thin film of plastic. Now [the material] starts to crumble and fall off, but that was not what [Martin Margiela] wanted, he wanted it to last.
>
> Verkens. MoMu. 2019.

This exchange between conservator, designer and material, shows the (im)permanence between the designer's memory and the authenticities of the materials as discussed in Section 6.2. Vidal and Dias' (2017: 1-38) essay on *The endangerment sensibility* introduces this complex as a notion to explore the features and perceptions of human and non-human (see Sections 7.5) worlds that are in danger of extinction or destruction (Ibid: 2). This approach helps to consider designers, like Margiela, who engage with their designs sometime after their production where (un)intended degradation has occurred showing the shortness of aesthetic and transient properties in materials. These discoveries can be intense because some designers associate their past work 'with a condition of primeval authenticity' (Ibid). Recording 'Designer Intent' may break down these barriers of assumed values, emotions and interests to re-evaluate degradation as part of the archival property to enable discussions in conserving the degradation as part of the (un)intended condition of the artefact.

6.3.2 Exhibiting (un)intended degradation

In 2011 the V&A showed a retrospective of the designer Yohji Yamamoto. It was the first retrospective for him and therefore the exhibition was a special and anticipated event. The intent of the designer was that the 'close-up opportunity was part of the visitor experience' (Glenn 2015: 240). Taking on this consideration from the designer the lead conservation team realised that material degradation would likely be part of honouring the intent of the designer (see Section 2.9.5). PVC can chemically degrade resulting in tackiness to the surface, encouraging embrittlement and subsequent phased discolouration often indicated as yellowing (Tonkin 2019: 69). This process can occur quickly, between 5-35 years after acquisition (Shashoua 2008: 10-11), hence Glenn's apprehension about the Yamamoto ensemble being exposed to an uncontrolled environment that can increase the rate of degradation. A common observation of many conservators is the quickening and distracting discolouration of PVC as seen in Figure 44. The image shows a yellowing shoe that was once plain PVC from the 1970s documented during a short survey of PVC artefacts undertaken by the author for cold storage research at The Costume Institute, The Metropolitan Museum of Art (2017) (Tonkin 2019: 69-76).

Figure 44. Polyvinyl chloride evening shoes showing yellow discolouration due to PVC degradation. Beth Levine, manufactured by Herbert Levine Inc., c.1970. Brooklyn Museum Costume Collection at The Metropolitan Museum of Art, Gift of the Brooklyn Museum, 2009; Gift of Beth Levine, 1996 (2009.300.6110).
Image: ©Leanne Tonkin. The Metropolitan Museum of Art, 2016.

The intense light levels of the Yohji Yamamoto exhibition at the V&A 'was integral to the design' (Glenn 2015: 240) and was initially respected by Glenn, the lead conservator of the exhibition. The environmental parameters, light, temperature and public accessibility to touch exhibits exceeded

the accepted levels in the museum. Fluctuations in light can cause fading, bleaching, discoloration and brittleness in some materials; high temperatures can accelerate the degradation by initiating softening of some materials and low temperatures can cause brittleness (SHARE Museums East 2011: 1). Public accessibility to artefacts would be adequately and physical protected, for example, reinforced glass vitrines or alarms (National Security Advisor 2013: 2). These parameters are often institutionally set to help maintain the safety and stability of the artefacts on display (see Section 2.2.1). In contrast to the display requirements with the Kaleidoscope Perfectos Dress, where the interpretation of the material qualities challenges the traditional museum exhibition setting (see section 5.3). The modern material element, in this case PVC appliqué on a skirt of the Yamamoto ensemble, could not be sustained because of the exhibition expectations set by the museum staff. This was because of a sudden degradation in the material.

A 'wear and tear and damage'[16] document was generated by Glenn specific to the Yamamoto exhibition as a 'memorandum of understanding' (Glenn 2015: 241) between the museum stakeholders, the designer and the design team. This document acknowledged the likelihood of damage to specific artefacts which would prompt removal from display during the exhibition period. The degradation of the PVC was considered to disturb the 'aesthetic intentions'[17] of the designer because it had become structurally unsound. The physical representation of concepts and ideas as embodied in the design are lost due to the degradation. The use of the 'wear and tear and damage' document shows Glenn identifies with the inaccuracy of conserving the newness of the PVC component because of known instability creating an unfixed position as a displayable object. This is an example of how conservators commonly accept the impermanence of the artefacts and simply remove the items when they are not pristine.

The decision to exchange ensembles during an exhibition based on the aim of reducing the impact of degradation limits the interpretation, as discussed with Glenn (2019), of Yamamoto's unusual practice of using plastics in his designs. The 'wear and tear and damage' document has become current practice for all exhibitions at the V&A instigated from the outcomes working with Yamamoto and his design team (Glenn 2015: 243). As previously stated, this practice is the preferred human social engagement with fashion artefacts. The anticipation and confirmation of the degradation in the PVC, through its removal from display, signifies the end of public engagement with postmodern materials.

[16] Security and conservation of loans to the Yohji Yamamoto exhibition 2011, wear and tear and damage agreement document, 2011, V&A, London. Not publicly accessible.
[17] Security and conservation of loans to the Yohji Yamamoto exhibition 2011.

6.3.3 Loss and change as part of fashion history

Malafouris (2013) extends archaeological and anthropological understandings of the 'materiality turn' (Ibid: 12) where material culture emerges as a significant cultural expression of human social behaviour (see Section 4.5). Malafouris (Ibid) explains that traditional material cultural approaches, like object-based research (Brooks 2000: 1-4), anthropological perspectives (Miller 2005: 1-19), and social and historical sciences (Tilley et al. 2006) can lead to an emphasis on the 'social' over the 'material' (Malafouris 2013: 12). Creating social history around fashion artefacts made from postmodern materials may present ideas for different conservation thought processes and practice, if considered as an embodied part of institutional collecting. Cullen (2019), head of modern textiles and fashion, V&A, and Ehrman (2019), independent dress historian and former curator at the V&A, confirm social history is a valued asset in public engagement with 'museum fashion' even when acquired directly from the designer, '(…) it's always a great bonus if the piece has been worn and has a wearer's story attached to it (…) (Cullen 2019). Reluctance to collect contemporary fashion based on postmodern material properties and qualities that degrade and diminish encourages a relational ontological approach (see Sections 9.2) to preserving social fashion engagement. Anticipating what future generations may perceive as being 'socially engaging fashion' could create indifference rather than the intended appreciation because of interventive methods to prevent postmodern material degradation.

Contemporary fashion culture exists in a postmodernist era affected by continual economic and political influences. The impact of COVID19 and environmental disasters, for example, the continuation of Southeast Asia floods, Australian wildfires (2020) and East Africa droughts (2011-19) (Oxfam 2021) during the development of this research has exposed cultural trauma, inequalities and anxiety that may reinvent how cultural assets are viewed in the future. 'Fashion embodies this ambivalence' (Evans 2003: 307) where post cultural views could encourage the role of the museum as the broad conservation of artefacts where possible, and documentation embraces future interpretation within the historical context. The selection of fashion artefacts that are conserved is what alters the historical view, the inability to conserve postmodern materials and lack of documentation is what will lead to a loss of knowledge and historical context. This research responds to, and evidences the identified inability to conserve postmodern, including sustainable biodegradable materials holistically within museum collections, by introducing new documentation of 'Designer Intent' (see Chapter 11), to avoid the loss of transient and temporal forms of fashioning the body (Entwistle and Townsend 2020: 289-304).

The cognition of materials can become separated from the social and material assets of artefacts. The MET identifies that the roles of the social, cognitive and material elements are inseparable because it takes a variety of consciousness (i. e.) how people discover the feel and functions of

their senses and how they discover affordances, enact possibilities of action to comprehend that which becomes reality (Malafouris 2018: 755). Stephen Jones OBE, British Milliner, expresses the importance of variety in his consciousness in the mediation of materials to realise his ideas.

> Because 99% of the time your imagination can soar more than the physical reality. However, you have to go through that 99% to get to that 1% when it really is magical and it's a surprise and wonderful (…). And with the materials, then I think the great thing about hand making you can use all sorts of different materials, often for the wrong reasons that's the great thing about it.
>
> Stephen Jones OBE. 2019.

As previously discussed under the section 'Collecting the moment: material signs' (see Section 4.3.1) the meaning of a material sign evolves from many variables and actions whilst engaging with the material (Malafouris 2013: 117). Degradation of traditional modern materials has long been recognised as being part of the survival of many contemporary fashion artefacts (Paulocik and Scott Williams 2002: 77-89; Cosgrove 2006: 55-61; Pritchard and Smith 2008: 132-137; Tonkin 2017: 153-162). The tendency to care for these artefacts is to slow the effects of degradation to maintain material agency. It could be viewed, in the sense of looking at degradation, as an emerging product of material engagement (Malafouris 2018: 766) where modern materials show temporal dynamics of the creative practice of a fashion designer which cannot be represented as being neutral. de Sá (2019), conservation scientist, Universidade NOVA de Lisboa, evaluates material change as being a working definition of damage and by conserving it stagnates the effects of material agency.

> (…) [this] is one of the biggest challenges of fashion design conservation. (…) we can preserve the material and the piece [can] be very well preserved but we are not really preserving the soul of the piece.
>
> de Sá, Universidade NOVA de Lisboa. 2019.

Modern materials age differently to traditional materials; therefore, they create different relational understandings in material properties and qualities. Degradation is a natural process, and some modern materials can degrade faster than traditional materials. Denying and stalling this natural process by manipulating environments to help prolong lifespans could be a contradiction in terms. By being 'self-defeating, undermining the image of natural aging' (Lowenthal 1994: 46) eventually creating 'artificial decay' (Ibid) and by conserving artefacts with additional materials that are not part of the original. Privileging the material could mis-lead as to 'Designer Intent' because of conservation practice, through long traditions such as reversibility and minimum intervention (Muñoz Viñas 2005: 183-197).

6.4 Pre-empting loss: towards a postconservation approach

Understanding and measuring loss through degradation and damage in artefacts of cultural significance is traditionally known to be 'one of the cornerstones upon which conservation decisions are built' (Clavir 2002: 43). Established sustainable conservation practice relates to established protocols of reversing damage through repair to stabilise an artefact using minimum intervention. Recently the profession has acknowledged that artefacts can survive differently beyond the life times of contemporary stakeholders (Henderson 2020: 195, 197; Muñoz Viñas 2020: 85-86), implying that the loss in the heritage sector could be understood from different cultural and societal positionings. The Institute of Conservation (Icon), UK, acknowledges the impact of changing environments as an essential influence in contextualising conservation practice.

> Issues of sustainability are central to all conservation, whether of items, landscapes, or the natural world around us: all are finite resources with which we have complex relationships, but which we seek to preserve.
>
> Institute of Conservation.
> Icon ethical guidance. 2020.

Icon's declaration to remaining relevant to changing and diverse landscapes is further supported by Muñoz Viñas, Professor in conservation theory, Instituto de Restauración del Partrimonio, Universitat Politècnica de València, when considering the complexities of cultural heritage and the impact this could have on conservation.

> (…) if the very notion of cultural heritage changes, conservation will inevitably change too, in every conceivable regard: its aims, its principles and the profession itself (the skills, the tools, the techniques) will need to be different from what they are now.
>
> (Muñoz Viñas 2020: 85-86)

Challenging the tradition of collecting and maintaining 'irreplaceable' artefacts for as long as possible (DeSilvey and Harrison 2020: 2) could lead to museums becoming more renewable resources supporting changing historical contexts. Greater appreciation of social, economic and environmental systems of production giving an artefact meaning, could inform more sustainable and transformative models which accept that some materials survive, some partially and some are lost (DeSilvey 2017a: 185). Documentation and archival practice are required to be adapted to reflect the various circumstances surrounding the materialisation of the artefact. Conservators working with postmodern materials could identify items from a 'postconservation' perspective, whereby processes of biological, chemical and physical breakdown are integral to balancing an item's usefulness and loss within material culture. The parameters of documentation could become multiple, evolving through practice-led conservation work that reconsiders patterns of material change. Devising an 'activity-centred' (Malafouris 2013: 149) documentation process, as opposed to a human-centred focus where archival stakeholders, conservators and curators,

follow standardised procedures, could recognise a relational ontological approach to recording 'Designer Intent', material and degradation as inseparable, reinforcing that intentionality and material agency are not innate but emergent properties of material engagement.

6.4.1 Conserving uncertainty

Re-evaluating the potential of degradation in postmodern materials as an integral process of their properties and qualities may encourage different conservation perceptions. Emerging perspectives on the process of degradation in cultural heritage contexts reconsider the aesthetic value, sense of authenticity and age (see Section 4.4), as aspects that show the 'emergence of new values, attachments and forms of significance' (DeSilvey and Harrison 2020: 3). These ideas could manage the process of postmodern material degradation in fashion artefacts by recognising potential new values that may be viewed as productive forms of 'fashion memories' (Townsend 2011: 90-107).

Intuition can play a part for fashion conservators working with postmodern materials where uncertainty is an element in their condition checking, assessments for treatments and storage of contemporary fashion artefacts. Learning to let go of certain assets, behaviours and beliefs that resemble a 'longest lifetime approach' (Henderson 2020: 206) to conserving postmodern materials may help conservators engage with contemporary issues, like climate change, social action projects and community-driven beliefs. In this sense, 'managing uncertainty becomes a process of observation and attention to people, their networks and priorities.' (Henderson 2018: 110). This engagement may connect to renewable and meaningful prospects in conserving postmodern fashion artefacts encouraging new (and unknown) possibilities for interpretation that includes the 'differing ways, these designers imbued cloth with narrative and memory' (Evans 2003: 258). This may inform different types of conservation and curatorial relationships with postmodern fashion artefacts whereby promoting continual material engagement using a 'continual identity' model (see Sections 5.5 and 9.3) as the artefact changes through degradation. This type of curatorial and conservation approach accepts other relationships between the audience and the degrading artefact can only be understood by the contemporary culture when the artefact is displayed. In other words, the original 'Designer Intent' and the artefact is lost as far as understanding its historical, design and cultural significance.

The lack of knowledge of properties and qualities postmodern materials present can be prohibitive to conservation and curatorial practice (see Section 4.4). Re-examining conservation practice-led values that emerge from the conservation and interpretation of contemporary fashion artefacts may go beyond structured professional guidelines. Ongoing discussion includes the development of particular codes of ethics for specific challenges (Ashley-Smith 2018: 11-12;

Wharton 2018: 60) when caring for contemporary fashion collections. As part of the information gained as the motivation for documentation could mean that uncertainties become an aspect of examination because of the nature of postmodern fashion artefacts needing to account for a more adaptive nature of reasoning (Taylor 2018: 30).

6.4.2 Co-documenting

Adapting conservation ethics to include the uncertainty of what postmodern 'material stories' will tell in the future may develop a sense of 'managing togetherness' (Vidal and Dias 2015: 28) as the only way of conserving the challenges of some postmodern fashion. For example, conserving the Rootbound #2 dress by Diana Scherer c. 2017, (see Section 7.4), has intrinsic material properties and qualities derived from the eco-system meaning accepting values in ways that go beyond traditional museum usefulness. Influenced by this unpredictability, conservators may act and care in tandem with artefacts like the dress as a potential part of the museum's 'material society' that supports postgrowth fashion culture (Fletcher 2016: 140-144), releasing the pressure to control condition and placing more importance on assessment and recording criteria. This may encourage future work in co-documentation techniques (see Section 11.4) creating a common understanding between conservators and curators. Verkens (2019), fashion conservator, MoMu suggested if she had to care for an artefact like the Rootbound #2 dress she would monitor and document the degradation on a six-monthly basis to ensure all documentation is up-to-date, filed and accessible on the collection management systems. This approach would contrast with developing archival systems that avoid the artefact receiving full recognition as an acquisition or applying methods to prolong the condition of artefacts until a treatment solution is found, for example anoxic treatment (oxygen-free environment). A practice-led approach of uncertainty recognises continual and generational conservation and curatorial practices where 'material agency', 'material memory' and 'material imagination' (Malafouris 2019a: 13) are elements of the degradation process showing 'distributed (modern) material processes' (Ibid) that stem from the original material choices of the designer.

6.4.3 Biodegradation and fashion artefacts

Sustainable design strategies and a new community of bio and speculative designers (Congdon et al. 2020: 137-148) are growing to help reconsider sustainable textile manufacturing, as a response to challenging the 'growth logic' (Tham 2020) to what is commonly understood as economic growth. Fashion systems that derive from renewable resources are gaining support and momentum (Blanchard 2020) as a rising response to global warming and economic inequalities that a global crisis such as COVID19 has highlighted. Biodegradable materials have characteristics that are favoured by emerging designers who intend for their creations to remain stable for use and wear before disposal under composting conditions (Ng and Wang 2016: 838). Biomimetic materials are informing textile research creating different design systems not reliant on

traditional paradigms of design expertise, there 'is no recipe for such a design journey' (Congdon et al. 2020: 137). The nature of these types of new materials is sometimes that they degrade and disfigure much more rapidly than non-bio-based materials. They are becoming part of an experimental and speculative approach to contemporary fashion (Dezeen 2014; Entwistle and Townsend 2020: 289-304; FabTextiles 2021), presenting new ideas within archiving, conserving and interpreting a potentially significant 'design turn' (van den Hoven 2017: 11-31) in early 21st century fashion design history. These different approaches to fashion create interesting discussions in the conservation field because longevity and perpetuity of an artefact is often important for ethical consideration for cultural accessibility for current and future generations. One of the main principles as set by the International Council of Museums (ICOM) lies in '…the notion of stewardship that includes rightful ownership, permanence, documentation, accessibility and responsible disposal.' (ICOM 2017: 9). The word 'permanence' implies 'to last a long time'. This ideal for cultural value conflicts with the philosophy of some designers who intend their materials to change, degrade, become part of a post-growth fashion system.

> What attracts me to it [the material] is that it's compostable, it's not just biodegradable, it's compostable. You can throw it away like you would your vegetable peelings.
> Suzanne Lee, Founder of Bioculture, 2014.

This represents the emerging intentions of a new generation of designers who are exploring biomaterials, often from food-industry discards and creating fashion that is intended to decompose. This challenges *The Acquisition and Disposal Policy* as set by the V&A (2019) which states under the *Legal and Ethical Boundaries for Acquisition*, '2.7 The museum will not acquire biological and geological material.' (Ibid: 5). This policy presents challenges because museum value systems are driven by longevity and not on 'the object's origin or belief where its value lies in its continual decay' (Sweetnam and Henderson 2021: 6). The significance of user responses to degradation has been explored but, as the 'Boundaries for Acquisition' policy by the V&A confirms, remains largely unaccepted in a cultural heritage context (Lowenthal 1994: 39-49; DeSilvey 2017). Postgrowth fashion, like biodegradable fashion, poses many possibilities for dress archives as showing a second 'material turn' (see Section 2.1). The work of DeSilvey (2017) in cultural geography acknowledges that conservation also has a responsibility to maintain natural and renewable processes, 'living heritage instead privileges change, in the context of continuity and makes space for [a] much broader range of material practices' (Ibid: 184-85).

Conservators anticipating these changes in 'materials practices', may have to interact and engage according to the characteristics of degradation as a process rather than arresting it as an archival intruder. Building material relationships with bio-based fashion artefacts combined with engaging with the practices of the designer to help capture narratives as 'critical reflection on their

possibilities and challenges' (Marçal 2017: 102), would be part of the documentation process. One where discovering meaning in material change will help rethink archival boundaries. Realigning conservation practice to be participatory with the designer and the artefact, as to how it is meant to degrade, would be considered subverting current traditional attitudes towards conservation and its objectives and aims (DeSilvey 2017: 183). de Sá (2019), conservation scientist, Universidade NOVA de Lisboa, describes the ambiguities in traditional archival relationships with contemporary fashion artefacts and the designer, whilst accepting the integrity of bio-based material properties and qualities and their transmission into the future.

> (…) these materials can get yellow, orange, brown. It can liquify. You can completely lose it. It was very important for me to define boundaries of the limit of degradation because sometimes [the designer/maker] say, it can change but don't have a clear idea of how that change can go and how far it can go. So, if I can't predict how the material is going to degrade it will be even more difficult because I won't be able to communicate to the creator about those kinds of changes that I am already expecting.
>
> de Sá, Universidade NOVA de Lisboa. 2019.

This response from de Sá in archiving biodegrading artefacts encourages a more proactive interaction, for example in monitoring construction, drape and colour. These types of materials introduce a different 'material intelligence' (Entwistle and Townsend 2020: 294) where human-centred design relates to 'nature and culture as extant' (Ibid). These notions of 'living artefacts' do not follow permanent but more temporal approaches to archiving that recognise the embodied experiences of conservators and curators who may acquire, a more hybrid material language with designers whose work supports circular and renewable fashion systems (see Section 4.2.2; Fletcher and Tham 2015b). This encourages new and future interrelationships that may include more environmental stakeholders as contributors to the care of twenty-first century fashion artefacts. In other words, recognising various forms of environmental stakeholders deriving from climate change, responsible consumption and production and supporting social equality and the eco-system (Environmental Audit Committee 2018) that relate to the material and its creator.

6.5 Postconservation and temporary archives

A postconservation approach that supports new forms of fashion material engagement could help create flexibility and variation for sustainable archiving of postmodern materials with degradative prospect. Ehrman (2016), independent dress historian and former senior curator, fashion and textiles, V&A, acknowledges the challenges for fashion curation to collect 'on the cusp of innovation'. Where fashion is radically migrating into new realms of immateriality and materiality, from various starting conditions such as scientific, technological and medical, reforming the role of the body (Townsend et al. 2020: 15-16) and, potentially, material archives. This means conservation and curatorial futures may need to reconsider the complicated nature of recording and documenting prototypical fashion materials in the rise of practitioners using new materials,

reconsidering the value of documenting and analysing decay as 'living heritage' (DeSilvey 2017b: 184). Postmodern materials that are intended to degrade, like biodegradables, mean the role of the material should not be underestimated by privileging 'form over matter' and 'design over material' (Hölling et al. 2019: 7).

Temporary archiving of changes in the artefact properties over time could be viewed as a more enactive approach to fashion acquisitioning and is a practice currently being adapted at the Victoria and Albert Museum (V&A), London. Fashion artefacts showing material innovation made from progressive manufacturing methods and which have a likelihood to degrade, can be acquired as a Non-Collection Object (NCOL). The term NCOL's comprise objects belonging to the V&A but are not part of the permanent collection, including mounts, handling, teaching items and packaging which are included in the Collection Management System (CMS), useful when planning for exhibition, research and other access. This archival system provides a solution that accepts degrading elements as being part of the material phenomena, working around museum policies of permanent acquisitioning (V&A 2019), where disposal is a complex and debatable process for museums in the UK (Museums Association 2021). NCOL opens up ethical options allowing for 'artefact-end-of-life' through the natural course of degradation eventually making the artefact no longer useful and ready 'to rehome' (Murray 2019) or to be legally disposed. The NCOL system presents a potential solution for approaching the conservation of postmodern fashion. For example, changes that occur to textiles through the passage of time may be viewed as 'dynamic attractors' (Malafouris 2013: 247) where conservators, curators and other museum stakeholders adopt variable societal, cultural and aesthetic values, accepting and emphasizing the 'notion of wear' associated with temporality and ephemerality, i. e. 'fashion memory' (Townsend 2011: 91-107).

Developing this active archival system could create mutual understanding between conservators, curators and collection care staff when considering the consequences of postmodern materials that fashion designers select to work with and develop. Active archiving could be viewed as a proactive procedure for collections care, adapting ethics, similar to that applied by NCOL, so that degrading postmodern materials in fashion artefacts remain useful, interesting, accessible to stakeholders and worthy of documentation to inform future collection care practices. Proactive, as opposed to a retrospective, archival practice may move away from the continual efforts to retard degradation for irreplaceability's sake and move towards embracing finiteness as being intentional within an unspecified time frame.

6.5.1 Fashion archives as temporal spaces

Interpreting ideas of 'fashion memory' is demonstrated by fashion practitioners and researchers who are developing new design paradigms between archives and wearables (Townsend et al. 2020c: 89-110). In this work, material engagement with historical dress artefacts is used as a method for identifying past and generating new craft skills by drawing upon 'distributed cognition and memory' (Ibid: 93). Material engagement through the examination of postmodern fashion, like those collected as NCOLs, may shift conservation paradigms to allow for 'epistemological uncertainty' (Henderson 2018: 109; see Section 6.4.1) when accessing and viewing fragile objects. In the future, degradation could be considered as a key aspect of the condition of the object that is not solely connected to misinterpretation, disposal and loss, facilitating archives as temporal spaces for current and future cultural uses and users to have a more 'meaningful and reciprocal relationship with the material past' (DeSilvey 2017b: 179). These material relationships based on the appreciation of imperfection or wabi-sabi[18], may demonstrate conserving fashion heritage has similarities with human fragility itself, encouraging an affinity with natural ecology and its changing conditions, ongoing aging processes and inevitable decomposition. These types of material relationships between the viewer and the artefact could create a shared, relatable and positive material engagement with culture, one that is not inestimable, helping to increase diversity in cultural users. This reversal of a traditional conservation approach to retain artefacts in pristine and if possible, unworn condition, prioritises the degradation process and short-term lifespans of degradable materials, as a progressive, sustainable goal in fashion interpretative practice.

6.6 Discussion

The idea of 'curated decay' (DeSilvey 2017), where degradation is viewed as an ongoing process that encourages material transformation, allowing future material attributes to exist (Ibid: 185), could help future cultural uses and users of postmodern fashion artefacts. Aspects of (im)permanence in fashion design are becoming material attributes that are part of a postfashion system (see Section 6.3). When considering these aspects as being part of fashion heritage, it encourages a paradigm shift in museum archival practice because of wider environmental stakeholders and the acceptance of active materials as part of the creative process. Traditional archival protocols that view potential degradation as uncollectible are in danger of losing postgrowth fashion heritage, one that supports environmental and social complexities as cultural translation (Calefato 2019: 41). Pre-empting loss in fashion artefacts may encourage fluid relationships with ongoing societal changes with unpredictable circumstances, to acknowledge

[18] In traditional Japanese aesthetics, wabi-sabi is a worldwide view centred on the acceptance of transience and imperfection.

aspects of uncertainty as conservation practice (and as conservation proxy) (Henderson 2018). Collaborative documentation that includes 'Designer Intent' may break down archival barriers that support traditional long-term objectives that disregard degradation as material agency. This information could prove beneficial, resourceful and inclusive of other potential fashion heritage users, for example those who do not engage with pristine perceptions of contemporary fashion. A 'postconservation' approach that supports proactive, temporal archiving of (un)intended degradation as part of fashion heritage may help extend the legacy and appreciation of postmodern and postgrowth fashion artefacts. By moving from a representational conservation approach towards one that embraces performative, wearable and renewable concepts.

6.7 Summary of key findings

- (Im)permanence as an aspect of conserving postmodern fashion acknowledges other environmental stakeholders as part of a postfashion system.
- Pre-empting loss when conserving and interpreting fashion artefacts encourages adaptable and sympathetic approaches that support conserving uncertainty.
- Temporal archiving as a new postconservation approach may increase the user base of postgrowth fashion heritage being performative and renewable.

Chapter 7.0 Object studies in conserving (un)intended degradation

7.1 Introduction: object study

'(Un)intended degradation' was the second main theme to emerge from the data analysis (see Section 3.5.5). This chapter uses object studies to observe and evidence ideas of degradability and loss as part of fashion history using a Material Engagement Theory (MET) and postphenomenological informed methodology (see Section 4.6). To evidence the ideas discussed in Chapter 8 the author uses the object studies to observe and analyse notions of (im)permanence, pre-empting loss and temporality in archives. The three object studies illustrated below were examined using the visual impact of degradation, environmental stakeholders and creative practice that utilises bio-based processes. Brief object records provide details of each artefact, including attribution, construction and overall condition (see Section 5.1.1). Each object study is examined using similar criteria from the three perspectives of 'conserving', 'archiving' and 'historical context' of (un)intended degradation to assess the diversity of bio and eco-based fashion artefacts. This means that when documenting 'Designer Intent' and the applicability of contemporary dress archival protocols in safeguarding bio and eco-based dress history. The selection of objects and methods of examination are listed in Sections 7.1.1 and 7.1.2.

7.1.1 Selection of objects

The first object is a Wild Rubber Dress with a tulle skirt, an example of a Non-Collection Object (NCOL) collected by the V&A (see Section 6.5), designed by Vivienne Westwood and Andreas Kronthaler for Lily Cole to wear for the punk themed Met Gala in 2013 (see Figure 45). Clear evidence of degradation on the rubber bodice relates to the sustainable material production methods by local communities in the Amazon. The second object study is an 'ECCO'-Leather Dress by Iris van Herpen, collected by the Palais Galliera, designed S/S 2010 for her Radiation Invasion Haute Couture collection (see Figure 46). The material choice by the designer links high fashion artefacts to eco-materials. This link raises considerations about conserving and interpreting the material and the role of degradation in archives where postgrowth fashion artefacts made using eco-materials are both part of and bring design to the eco-system. The third object study is the Rootbound #2 Dress by Diana Scherer in 2017 shown at the *Fashioned from Nature* exhibition at the Victoria and Albert Museum (V&A) (2018-19) (see Figure 47). Museums considering artefacts, like the Rootbound #2 Dress, questions the current conservation paradigm in dress archives as practice-based artists and designers reference nature and growth as potential source material and creative inspiration.

7.1.2 Object examination

Full conservation examination was undertaken at the Clothworkers' Study Centre, V&A, for the Wild Rubber Dress by Westwood and Kronthaler in 2019. The author was given specialist permission to handle the dress as an experienced textile conservator. Close up material engagement enables the author to discover and gather material information of the wild rubber through sight, touch and smell[19] to make sense of its condition, texture and surface debris. A small spatula was used to interact with multiple layers where seams were located to assess the impact of construction methods and to engage with local areas of dark degradation on the rubber to evaluate any differences in condition and surface tension. Characterising the material, assessing its condition and examining the overall construction of the dress helped gain a collective idea of its fragility and strength and to contextualise the quickening degradation. The dress was carefully turned over by the author with the help of a member of collections care staff which helped gain insight into the weight and back details of the dress. Notes, dimensions and diagrams were taken throughout the examination for later reflective practice.

For the 'ECCO'-Leather dress, by van Herpen, in-person examination could not take place due to COVID19 archival and travel restrictions at the time of research, otherwise, a similar approach would have been applied to examine the Wild Rubber Dress. As a way for the author to engage with the artefact, digital conservation files were remotely shared in the form of condition reports and photographs by the conservator and the curator responsible for the care of the dress from Palais Galliera, Paris. Documentation on the Rootbound #2 Dress, by Scherer was shared digitally and virtually with the artist herself during a virtual meeting to discuss her plant growth material processes and techniques (see Section 5.1.2). The artist demonstrated the materials' flexibility and fragility with her own hands by folding, stretching and making comparisons with other samples, showing the effects of different finishes. Through virtual material engagement the author was able to examine the technique, and strength in the weave when Scherer expanded and contracted the samples with her hands. With this type of material knowledge exchange, the author was able to condition check the Rootbound #2 Dress by observing the artists' touch and hand engagement with the material whilst discussing her material preferences and creative knowledge gained from working with the plant growth materials.

[19] Sensorial property often noted when examining historical artefacts.

Object study 4: Wild Rubber Dress by Vivienne Westwood and Andreas Kronthaler, c. 2013

Figure 45. Wild rubber dress by Vivienne Westwood and Andreas Kronthaler. V&A Museum, London. c.2013. (PROV.489-2019). Given by Lily Cole. Image: ©Vivienne Westwood/Victoria and Albert Museum. London. 2013.

Object study 5: ‘ECCO’-Leather Dress by Iris van Herpen. S/S 2010

Figure 46. ‘ECCO’-Leather Dress by Iris van Herpen. Haute Couture, S/S c.2010, Radiation Invasion collection. Palais Galliera, Paris. 2014. (GAL2014.31.1). Image: ©Palais Galliera / Ville de Paris. 2014.

Object study 6. Rootbound #2 dress by Diana Scherer. 2017

Figure 47. Rootbound #2 dress by Diana Scherer. c.2017. Shown at Fashioned from Nature exhibition at the V&A (April 2018-January 2019). Privately owned by the artist.
Image: ©Leanne Tonkin. 2017.

7.2. Object study 4: Wild Rubber Dress by Vivienne Westwood and Andreas Kronthaler. c.2013

The Wild Rubber Dress designed by Vivienne Westwood and Andreas Kronthaler (see Figure 45) was examined by the author at the V&A, The Clothworkers' Centre, London, in October 2019. From this examination, detailed images were taken to document and further analyse the materials, construction and condition of the artefact as listed below in the object record. However, these pictures could not be reproduced for this thesis due to copy right reasons.

Brief object record:

Object No: PROV.489-2019, V&A, London, UK (see Figure 45).

Designer/maker: Vivienne Westwood and Andreas Kronthaler.

Object name: Dress with sustainably produced wild rubber bodice and nylon tulle skirt.

Date: c. 2013.

Attribution: The dress was designed for British model Lily Cole, a British model, following her trip to Acre, Brazil, as ambassador to Sky Rainforest Rescue, to wear for the punk themed Met Gala in 2013.

Brief description: Neutral coloured rubber corset-styled bodice with full-length colour-matched tulle skirt tightly gathered around the waist. The bodice is sleeveless, off-the-shoulder and is semi-transparent showing the boning structure beneath.

Materials: Wild rubber deriving from sustainable harvesting from small-scale producers in the Amazon Forest trained by Brazilian designer Flavia Amadeu (V&A 2021c). The rubber is 2mm thick, quite flexible with a slight sticky surface. Standard nylon tulle skirt.

Construction: The bodice is made with symmetrical panels with princess line seams and shoulder panels. A separate centre back (CB) panel covers a nylon coil zip fastening secured with three studs. A separate panel extends around the waistline where the tulle skirt is gathered and attached. The bodice has a black lining and is padded in the upper front, raw edges and machine stitching throughout. The nylon tulle skirt has unfinished edges along the hem.

Brief overall condition: Good to fair condition (see Section 5.1.1). The bodice has yellowed due to oxidation and dark brown spot stains are present throughout potentially caused by perspiration

from previous wear.[20] A large circular dark brown stain is evident on the proper left (PL) front of the bodice disfiguring the overall appearance (see Figure 45). This is likely due to localised biodegradation causing surface erosion and breakdown (Auld 2019).[21] Further large dark brown staining is found along the PL armscye edge and PL back side panel. Loose white powdered debris lies on the surface of the rubber. A strong 'rubbery' odour is emitting from the bodice. Overall construction is stable.

7.2.1 Conserving bio-agency

Examining the Wild Rubber Dress highlights other forms of material properties and qualities because the material is a product of sustainable rubber manufacturing processes. This material differs from man-made synthetic rubber developed for mass-production in the early 20th century (Blackley 1983: 18) (see Section 2.3). This contrast of material production which supports protection of local and eco-communities demonstrates the wild rubber, harvested from Pará rubber trees native to the Amazon, is an 'intelligent material' (Entwistle and Townsend 2020: 294) connecting natural material processes and developing socioeconomics with the body as fashion culture. Disfiguring stains through localised degradation on the rubber bodice show the accelerated nature and visual impact of natural deterioration, possibly due to a chemical reaction. The cause of the rubber degradation in general, is still being explored and fungi and bacteria growth are considered to contribute to the degradative process (Yikmis and Steinbüchel 2012: 4545) which reduces stability and elasticity. Wild rubber being a natural material derives from latex produced by Pará rubber trees and normal harvesting practice by rubber tappers would be to sell their crops to rubber processing plants who clean and purify the rubber. Recently, Amazon rubber tappers learned to locally process and finish the rubber sheets enabling the tappers to sell the finished product (WWF 2021). This development helped prioritise forest management practices that align with community interests contributing to a highly biodiverse ecosystem (Fitts et al. 2020: 2).

Ehrman (2019), independent dress historian (former senior curator of textiles and fashion, V&A, and Murray (2019), curator, modern fashion and textiles, V&A, wrote a formal justification for the acquisition of the dress as an NCOL (see Section 6.5). This archival approach encourages a system of growth for biomaterials that are expected to change unpredictably, as shown with the occurrence of the dark brown staining. The dress signifies a design paradigm because of its biobased material and environmental stakeholders, including non-human actors (the Pará rubber trees) and it is supported by other bio-design initiatives. The Biological Atelier SS2082 by Amy

[20] Hackett, J., 2020. lecturer in textile conservation, University of Glasgow (former head of textile and fashion conservation, V&A). Telephone conversation with Leanne Tonkin, London, 8th August.
[21] Danica Auld's MPhil dissertation 'Stretched Too Thin' was not available at the time of the authors' request due to being embargoed by the University of Glasgow.

Congdon, a speculative design project exploring tissue engineering in design and production, reinforces the significance of fashion designers engaging with bio-based textiles to develop new 'tissue culture' (Congdon et al. 2020: 138). This engagement explores high fashion possibilities that promote eco design-based approaches that reconsider the 'ultimate commodity' (Seed-London 2015). Biocouture (Kleiderly 2020), is another example of eco-fashion engagement, the concept introduced by Suzanne Lee, adopts the use of bacteria in the production and manufacturing of textiles for fashion, encouraging the value of compostability as keeping up with high fashion through societal and environmental change.

7.2.2 Archiving bio-based fashion artefacts

Collecting biological fashion that is considered an example of major innovation in design by dress curators becomes an oxymoron because of the exploratory nature and culture of shaping and reshaping the meaning of material technologies (van Dongen et al. 2019: 3). This dilemma can interfere with traditional dress archival trajectories as set by museums. For example, hybrid manufacturing explored by OurOwnsKIN, a research project probing the possibilities of 3D printing footwear based on human skin structures to inform future biotechnologies (Papastavrov *et al* 2020: 191-192), contributes to historical advancements in sustainable biomaterials and production processes (Ibid: 201). Postphenomenology, as discussed in Section 3.7, supports the idea that technologies, like the biotechnological footwear, cannot be understood as a priori (van Dongen et al. 2019: 3). In other words, these prototypical designs cannot be represented as a single entity, instead they could be considered as part of a transitional journey of design possibilities (see Sections 8.3.1 and 8.4).

A designer's choice to work with innovative materials often translate as major influences in fashion design. For example, Iris van Herpen's Crystallisation Bodice, Haute Couture, S/S 2010 (see Figure 48), demonstrates her material engagement with the natural environment and 3D technology as a 'paradoxical relationship' in materialising her ideas to become fashion (Braithwaite 2014: 55, 61). Degradation of these pieces is already known and was confirmed by Debo (2019), director and chief curator, MoMu. She collected the original 3D printed Capriole Skeleton Dress, Haute Couture, A/W 2011, by van Herpen, 'you already see the colour change' and 'yellowish' colouration of the material from the original whiteness of the dress when produced.' Similar to the dark stains on the Wild Rubber Dress, these changes in colour provide an essence of the short lifetime these types of fashion artefacts bring to archival practices, potentially instigating debate about the acquisitioning of postmodern and postgrowth fashion artefacts. Thus, demonstrating that degradation maybe reconsidered as being 'materiality in process' (Kidwell 2016: 201) meaning accepting the degradative elements and ultimate loss as embedded material properties and qualities in the archiving of bio-design heritage.

Sustainable design practice, as shown by Westwood and Kronthaler's material choice (and promoted by the association with a celebrity attending a high-status event) extends the 'materiality in process' discussion when the dress was acquired. Thus, enabling museum stakeholders to accept the artefact's material value over its condition. Degradation becomes interesting and resourceful when allowed to take its course, facilitating a more holistic approach to collecting and archiving dress, such as bio-based fashion. Acknowledging stakeholders beyond the museum, for example, environmentalists, activists and social-action campaigners, has allowed the uncertainty of the condition of the dress to be managed and reinterpreted. Henderson (2018: 109) introduces 'ontological uncertainty' as an approach in conservation to describe the benefits of the practice of not knowing. This idea encourages an 'active uncertainty management' (Ibid) that avoids negative consequences by allowing for different stakeholders to critically assess the conservation of artefacts and the environments they are associated with (see Sections 6.4.1 and 6.5.1). This perspective helps with the practice of not knowing the continued disfiguration and the time the dress will take to fully degrade, making these aspects a feature of 'Designer Intent' and expertise. Embracing the hybridity of the ethical formulae of a postfashion system through material engagement and a 'postconservation' approach creates a more responsive (and creative) practice for conservation, where even though destruction is inevitable, it is a valued part of sustainable design discourse and practice.

Figure 48. 3D Printed Bodice by Iris van Herpen, Daniel Widrig and Materialise, Belgium, Haute Couture, S/S 2010, Crystalisation Collection. (2016.16a, b.) The Costume Institute, The Metropolitan Museum of Art, New York. Reprinted version, c.2015. Image: ©Nicholas Alan Cope. 2016.

7.2.3 Postfashion history

The active degradation on the Wild Rubber Dress raises a broad range of environmental and social considerations for postfashion dress archives (see Section 6.6). For example, when caring for natural and locally sourced materials in products that promote social equality, local economy and renewable sources. Patrizia Calefato (2019) uses the term ‘fashionscapes’ to help define the variety of temporal layers where fashion exists. The dress helps explain how fashion blends

nature with the climate because the origins of material are not 'a neutral variable' (Ibid: 36), made materially evident through the accelerated degradation and continued yellowing on the wild rubber bodice harvested by local small-scale producers in the Amazon Forest (see Section 7.2). Nature and degradation are harmonised, and the Wild Rubber Dress illustrates this harmonisation through fashion. Under the heading 'Fashion and Mindsets for Change', from the *Fashioned for Nature* publication (Ehrman 2018), Dilys Williams, UAL Director of the Centre for Sustainability Fashion, highlights the benefits of nature and fashion exchange and 'design intent' can be the core of 'thoughtful and thought-provoking design – to create better than that which currently exists' (Ibid: 156). Williams acknowledges the benefits of 'Designer Intent', postmodern and postgrowth fashion as elements that can trigger social, economic, political and technical change (Ibid: 156-157). As exemplified though the dark stains on the rubber bodice, these chemical changes symbolise local social practices as expertise in the production of post(growth)modern materials, connected through Haute Couture and Westwood as shared knowledge and practice.

Recording Westwood and Kronthaler's material choices in making the Wild Rubber Dress Lily Cole, using the toolkit (see Section 9.4), will document their motivations in working with social action projects and local Amazon communities as cultural entities to bio-fashion heritage. The information will classify the degradation process, acknowledging the temporal dynamics of the material as embodied aspects of the creative process.

7.3 Object study 5: ‘ECCO’-Leather Dress by Iris van Herpen, S/S 2010

Figure 49. Front of ‘ECCO’-Leather Dress by Iris van Herpen. Haute Couture, S/S 2010, Radiation Invasion collection. Palais Galliera, Paris. c.2014. (GAL2014.31.1). Image: © Sylvie Brun. Palais Galliera. 2014.

Brief object record:

Object No: GAL2014.31.1, Palais Galliera, Musée de la Mode de la Ville de Paris, Paris, France (Figures 46 and 49).

Designer/maker: Iris van Herpen.

Object name: Dress made with 'ECCO'-natural leather decorated with strips of folded leather secured with tulle.

Date: c. 2010.

Attribution: Haute Couture, spring-summer 2010, Radiation Invasion collection.

Brief description: Natural coloured leather jacket with swirling leather strips accentuated using a semi-circle relief patterning made from boning. The strips create a symmetrical appliquéd contour surface effect. Novelty tanning effect is applied to leather (Brun and Lallemand 2020).

Construction: Stretched tulle and a natural-coloured cotton canvas lining helps to support and create the leather strip relief patterning. CF zip fastening with deep 'V' neckline. The jacket is fully lined with long set-in sleeves (Ibid).

Brief overall condition: Good condition. Dark spot staining and fold marks are evident on shoulders, sleeves and back. Some loose stitching and fastenings and scattered needle holes. Yellow dressmaking pin was removed from tulle on lower front and archived with object record. Scratches evident on inner sleeves and signs of wear on surface causing fading around the hip and boning areas. Manufacturing errors evident on some of the leather strips (Ibid).

7.3.1 Conserving eco agency

Iris van Herpen collaborated with the company 'ECCO'-Leather to help create a dress made of natural coloured leather with a semi-circle relief patterning made from boning for her Haute Couture, S/S 2010, Radiation Invasion collection (see Figure 49). The object shows innovative use of eco-leather which is understood to derive from purely natural sources by following less toxic manufacturing processes, for example: reduction in chemical usage and wastewater production ('ECCO' Leather, 2021). Samson (2019), Haute Couture and contemporary design curator, Palais Galliera, reaffirms the sculptural forms associated with approaches taken by the designer combined with the organic use of eco-leather connects Haute Couture to sustainable, holistic

design practices. The artefact provokes an interesting discussion because of its association with an eco-design system which focuses on the whole-life cycle of a product (Mora et al. 2014: 139-147; Payne 2021: 114-116).

Postmodern materials like the 'ECCO'-Leather are emerging from anthropogenic influences in fashion artefacts which seems to acknowledge the benefits of the earth's ecosystems. Environmental scientists (Hobbs et al. 2006; Mascaro et al. 2013) argue that there are benefits in humans contributing to the direction of the ecosphere by creating new 'novel ecosystems' which have become permanent evolving features, offering holistic and realistic modes for ecological relationships (Kidwell 2016: 246 - 47). They 'can result from deliberate and inadvertent human actions which are not dependent on human intervention for their maintenance' (Ibid: 244). Conserving the 'ECCO'-Leather may introduce ideas around transformative properties and qualities that supports the dispersion of 'Designer Intent' for the designer that embraces the eco-system and environmental impact. These considerations offer a more holistic and realistic idea of ecological engagement of current and future fashion cultural users. The artefact creates a form of fashion 'eco-literacy' (St. Pierre 2015: 33) that identifies eco-material properties and qualities as aspects that co-exist with protecting natural environments that are not cultivated or purposed, they exist to encourage growth, variety and evolving native species. Munõz (2005: 92) states '(…) conservation can be viewed as a manifestation of the ethical imperative of not lying.' This enables the conservation field to acknowledge and embody wider environmental considerations in which materials are manufactured in ethical, natural systems, thus accepting different approaches in caring for artefacts that support eco-design systems.

> Nature is a big part of my work. It's an endless stream of beauty. I like creating my own versions of it, trying to translate the logic behind the system that works so perfectly.
> Iris van Herpen, 2020. Dezeen.

Iris van Herpen uses Haute Couture to heighten material engagement between herself, her collaborators and design team. She does this through developing new, unexplored ideas to create different material qualities which often cannot be characterised because they are meta-physical. For example, van Herpen worked with Dutch designer Jólan van der Wiel to design the Magnetic Moon dress (A/W 2013-14) by developing a technique using magnetic force to manipulate and texture polyurethane embedded with iron particles. This example is indicative of the approach taken by van Herpen towards postmodern materials, and the properties and qualities they offer, where hand, movement and feeling mutual joy during material engagement is part of the 'collection process' (Jordahn 2020). The use of the 'ECCO'-Leather, brings new materialities because of the wider scope of environmental stakeholders which relates to collective responsibility and shared ownership in the ecology of eco-materials. Rethinking archival

ontologies may become necessary if this shared ownership in material engagement is to be acknowledged where the 'ECCO'-Leather Dress embeds values of sustainability and renewability.

Material engagement with eco-materials helps the user(s) of the artefact to reconsider these elements of having related 'outsiders' to the material archive, the eco-stakeholders. The conservation of postgrowth fashion heritage, as part of design conservation, may acknowledge a 'cradle to cradle' (Burns 2019) approach. One where the regeneration of the eco-system is highlighted through the 'material health' (MBDC 2022) choices being part of 'Designer Intent'. As previously discussed, the Material Engagement Theory (MET) combines material agency and cognition, and this acknowledges elements of organic and inorganic (nature and human intervention) as constituents that help bind materials (Malafouris 2013: 213). This, in turn, identifies aspects of unpredictability in the performance of material properties and qualities due to blends of ingredients which the conservator must respond to. Conservators who may decide to allow the degradation of eco-materials to be perceived as responding to material change as a source of continuous historical information for the viewer(s) (Henderson 2020: 203) (see Section 6.2). Proactively responding to the multi values and interactions that form material relationships (see Chapter 5) advocates for the 'continual identity' model (see Sections 5.5 and 9.3). Whilst at the same time, enabling eco-material stories to be displayed that would otherwise be retarded and stabilised by the conservator. The archival decision not to intervene could be viewed as an ongoing rendition of the designers' relationship with eco-design and provide an insight into the progressive role of eco-manufacturing, as shown with this object study, through the 'eco-literacy' of Haute Couture.

7.3.2 Archiving eco agency

Artefacts made with postmodern materials will often be allocated life expectancies because of known (and unknown) instabilities (see section 4.1). This can encourage conservators and curators to think about documentation, storage, research and exhibition lifetimes in a different way. For example, the NCOL system at the V&A (see section 6.5 and 7.2) which embeds temporary, functional and accessible aspects to purchasing unstable fashion artefacts. Planning for the ending of an artefact can give rise to different 'conservation narratives' (Hölling 2017b: 88), where changes to the conservation system are necessary to enable post(growth)modern materials and fashion artefacts to become part of the construction of conservation knowledge. Part of this knowledge may come through the artefacts' 'end point' as an 'endless possibility of translation' (Calefato 2019: 41; see Section 6.6), informing fashion conservators to (re)consider the wider possibilities for future generational uses and users of bio-based design artefacts. This means the role of the conservator in imagining what the future looks like (and the present) cannot be anticipated. Eco-materials can present different archival paradigms where 'biocultural

diversity' (Vidal and Dias 2016: 27) reduces the aim for neutrality in fashion interpretive practice which often depends on continual documentation and environmental monitoring (see Section 2.2.1) that are characteristic of an 'endangered regime' (Ibid: 29). Recording 'Designer Intent' could co-exist with the attribution of intrinsic values, properties and qualities of eco-systems, materials and fashions where conserving the physical attributes of an eco-fashion artefact becomes irrelevant to maintain its agency.

As an example of conservators and curators acknowledging the end of a fashion artefact as a valid element in archival use, the author would like to share an object study from a research visit to the Museum of Fine Arts (MFA), Boston, USA, in 2017.[22] The author examined the Anthozoa 3D Cape and Skirt, Voltage collection 2013, designed by Iris van Herpen, Neri Oxman and Julia Koerner in collaboration with Stratasys (see Figures 50 and 51). Although, the 3D Cape and Skirt is not made from natural materials the ensemble illustrates the 'end-of-product-life' as an aspect that helps release information of a postmodern fashion artefact in line with the philosophy of conservation. The two-piece ensemble is deteriorating significantly due to the breakdown of the 3D printed polyurethane-based material (see Figure 52) and was acquired because of the material technology being applied in fashion, similarly, the reasons for collecting the 'ECCO'-Leather jacket. Immediate priority was given to increase display and research opportunities within a potential ten-year archival window because of limited long-term use and conservation (Thompson 2017). This encouraged targeted dissemination of the artefact, before its ultimate destruction due to accelerated degradation, to include as many stakeholders as possible to help transmit new technologies being explored in early 21st century fashion.[23]

[22] This research was undertaken prior to this Doctorate by the author whilst completing a Polaire Weissman Fund Fellowship, in the conservation of dress, The Costume Institute, The Metropolitan Museum of Art, September 2015 - August 2017.

[23] Thompson, J., Associate Conservator. 2017. Conversation with Leanne Tonkin, Museum of Fine Arts, Boston, USA, 18th January.

Figure 50. Anthozoa 3D cape, Voltage collection 2013, designed by Iris van Herpen, Neri Oxman and Julia Koerner in Collaboration with Stratasys. Museum of Fine Arts, Boston. c.2013. (2013.1487.1).
Image: © Leanne Tonkin. 2017.

Figure 51. Anthozoa 3D skirt, Voltage Collection 2013, designed by Iris van Herpen, Neri Oxman and Julia Koerner in collaboration with Stratasys. Museum of Fine Arts, Boston. c.2013. (2013.1487.1).
Image: © Leanne Tonkin. 2017

Figure 52. Breakage, discolouration and surface debris. Anthozoa 3D skirt, Voltage Collection 2013, designed by Iris van Herpen, Neri Oxman and Julia Koerner in collaboration with Stratasys. Museum of Fine Arts, Boston. c.2013. (2013.1487.1).
Image: ©Leanne Tonkin. 2017.

7.3.3 ECCO heritage

A postphenomenological approach (see Section 3.7) helps in valuing the archiving of post(growth)modern fashion and its cultural stakeholders where complete loss is inevitable. The conservation and interpretation of Anthozoa 3D Cape and Skirt, by van Herpen et al, becomes devoted to generating as much tacit knowledge as possible about new technologies and materials, as a continuous process of information to be culturally negotiated beyond the 'end point' of the artefact. A similar approach could help archive the 'ECCO'-Leather Dress where there is a possibility the dress may degrade in several decades due to the sustainable process in its manufacturing (see Section 7.3.1), evident in current signs of local degradation that, otherwise, may not have occurred. 'Decay is inexorable' (Lowenthal 1994: 46) and an essential component for an eco-system to thrive beyond human intervention (Vidal and Dias 2016: 27). The longevity of bio-based fashion artefacts may be valued in different ways that extend outside the traditional archival and interpretive formats often selected by conservators and curators, for example, regular use of film, photography, digital archives and interviews. Documenting 'Designer Intent' and the 'ECCO'-Leather Dress as part of a more 'responsive documentation system' (see Chapter 7 and Section 9.4.5) may encourage a more positive relationship with environmental homogeneity in conserving postgrowth fashion heritage.

Using the toolkit to document van Herpen's desires to work with 'ECCO'-Leather will capture the rationale in co-designing, using renewable resources of energy as attributes to eco-based Haute Couture heritage.

7.4 Object study 6: Rootbound Dress #2 by Diana Scherer, 2017

Figure 53 (left) Rootbound dress #2 by Diana Scherer. c.2017. Image: © Leanne Tonkin.
Figure 54 (upper right) Detail of plant root material grown by Diana Scherer. Image: © Diana Scherer.
Figure 55 (lower right) Upper back of Rootbound dress #2 by Diana Scherer. Image: © Diana Scherer.

Brief object record:

Object No: Rootbound dress #2, privately owned by the artist. (Figures 47 and 53-55).

Designer/maker: Diana Scherer.

Object name: Dress grown from the roots of plants to create 3D textile.

Date: c. 2017.

Attribution: Produced and exhibited for the *Fashioned for Nature* exhibition at the V&A (April 2018-January 2019).

Brief description: Sleeveless dress in a simple shift-style silhouette with a low 'V' front neckline.

Materials: Planned plant roots harvested to grow into intricate structures forming repeatable and symmetrical 3D patterning (Figure 55). Very light in weight.

Construction: Simple structure helped by the mannequin to shape the material into a dress form.

Brief overall condition: Good but fragile condition. The material is delicate and likely to become brittle if temperature and humidity fluctuates.[24]

7.4.1 Conserving 'the growing moment'

Conserving eco-fashion could be seen as supporting eco-systems as an environmental contributor made evident by eco-material change consumable in many ways, including non-humans. The Rootbound #2 Dress by Dutch-based artist Diana Scherer in 2017 is grown from roots of plants to create a 3D textile and is an example of the potential of 'growing' fashion. Scherer (2020) explains the interest in clothing and not fashion giving precedence to her harvesting process where she has developed a technique to control the growth of plant roots to make textiles. She uses a variety of plant seeds, for example corn, flax and beans, to create patterned materials with templates. When the roots are fully grown, Scherer removes them from the soil and cuts off the plant stems leaving behind an intricately patterned grass root material. There is an essence of 'true materialism' where artefacts, like this object study, acknowledge the scope of a 'material society' where availability of materials is environment-led supporting ideas for sustainable continuity in fashion practice.

[24] Scherer, D., Artist. 2020. Conversation with Leanne Tonkin, Netherlands, 8th June.

Postphenomenological thinking supports ideas that technologies cannot be understood as a priori, because of the continual shaping and reshaping by the designer through their practice (van Dongen et al. 2019: 3). The Rootbound #2 dress demonstrates how fashion artefacts may introduce a less tangible fashion heritage because the designer engages with the complexity and changeability of ecosystems. This type of material engagement presents different considerations when documenting social and practical relationships between the designer, cultural user(s) and fashion artefact. Therefore, creating different 'heritage-related emotions' (Vidal and Dias 2017: 27) by re-establishing historical values in caring for dress artefacts which have different contextual parameters. The Rootbound #2 dress may bring together shared values between the environment, human emotion (of the cultural user) and 'Designer Intent' for a common good that encourages diverse and continuous material engagement. 'The cognitive life' (Malafouris 2018b: 8) of the Rootbound #2 dress enables a presence that is not reliant on past connections with people and realities formerly attached to the values of an artefact (Vidal and Dias 2017: 27). Instead, values what it presently holds for the cultural user, and designer. 'Nature plays a crucial role in the well-being of the human mind, emotion, and physical well-being' (Ahmad Sayuti and Ahmed-Kristensen 2020: 145). Displaying the dress could create a sense of a sustainable, hopeful future through emotional experience which may be considered a renewable asset of dress archival use even if the material is substantially altered or degraded.

7.4.2 Archiving 'the growing moment'

Naturally sourced materials are starting to become important for designers to share in their work as an 'material acknowledgment' of sustainable hybrid creative practice and of materialising their concepts that provide novelty and difference to please their creative desires. Sies Marjan, a New York ready-to-wear label designed by Sander Lak, selected Scherer's work for some of their A/W 20-21 collection as surface embellishment. The artist and designers found and developed a connection to fashion with Scherer's advice 'to be careful' as there is a likelihood the material will degrade if exposed to certain environments. Conserving naturally sourced materials presents many changeable variables and becomes a 'knowledge-generating activity' (Hölling 2017b: 88) where rationalising and contextualising the likely destruction of the plant root construction may be documented as part of an object record. The response being to archive naturally sourced fashion artefacts to be transmitted, transformed (through degradation) and lost; enabling analysis on issues of practice and experience that acknowledges fabrication of eco-materials used for fashion artefacts that are actively part of the human condition (Ihde and Malafouris 2018: 209). This approach may require a more 'responsive documentation system' to update object records as an open system to work with change rather than reverse or arrest it (DeSilvey and Harrison

2020: 4) (see Chapter 6). Archives could increase and sustain relevance as time progresses fitting current and future societal remits.

7.4.3 Juxtaposing heritage with nature

New media, like biological materials, used in contemporary art and design practice is beginning to challenge traditional conservation paradigms (The Getty 2019). The Rootbound #2 Dress avoids the idea of artefacts being historical commodities in an archive, because of its cyclical trajectory and materiality where material regrowth is acknowledged and enacted. The archive becomes enlivened adapting a 'management of uncertainty' (see Section 6.4.1), embracing what Scherer (2020) expresses as 'the growing moment' to be documented as potential materials[25] that still need developing, demonstrating human-nature co-existence through creative practice. Postgrowth fashion artefacts, like the Rootbound #2 Dress, blur the boundaries of what may be considered as being authentic (see Chapters 4 and 5), because of the consequences of changes in technologies and working practices (Wooley and Niedderer 2016: 159). For example, Scherer's studio practice of growing plant-based 3D textiles and the development of e-textile design prototypes at Nottingham Trent University (see Section 8.4.2). These developments show the diverse understandings and values of 'Designer Intent' that may require a 'responsive documentation system' (see Section 9.4.5) to support postmodern and postgrowth fashion archiving.

Extending ideas on cyclical trajectories, this object study introduces other considerations of 'renewable aesthetics' in fashion artefacts. Harvesting the plant roots as a planned creative process demonstrates how materials can be considered a continual source to be utilised and transformed into decorative material for future fashion and clothing. The aesthetic element of the material occurs from natural generation and regeneration meaning, as just mentioned, the growing process is not entirely predictable and is nature reliant. Naturally occurring materials do not exist, they are 'practically experienced' (Ingold 2007: 14) aesthetically by the artist/designer/maker that could be considered part of 'Designer Intent' that acknowledges the condition of the material will continue to merge and mutate, as a nature reliant material. Scherer explains 'the work is making itself' which shows a preference for the behaviour of natural, re-growable and replenishable elements in the application of post(growth)modern materials.

Supplementary evidence gathered by using the toolkit could record Scherer's commitment to work with a variety of material species (corn, flax and beans). Recording degradation as an inherent part of the fragility and heritage of the artefact being a consequence of 'Designer Intent'.

[25] Whilst drafting this thesis the author often referred to these as 'protentional materials'.

7.5 Discussion

Westwood and Kronthaler's Wild Rubber Dress demonstrates how postgrowth fashion archival strategies can evolve, whereby, archival practice interprets change and degradation as inevitable stories of biodegradable fashion history. The natural processes and connections to sustainable design practices are symbolised by the signs of degradation on the bodice which initiates discussion of who decides the value of loss and change (DeSilvey and Harrison 2020: 3). In this case, the dress symbolises shared knowledge through the production (and degradation) of the Amazon produced wild rubber being an integral part of local economy. Displaying the Wild Rubber Dress advocates for more sustainable rights and provisions (Fletcher 2016: 241-2) for local communities, that contributes to the history of manufacturing bio-based materials and, therefore the production of heritage values. The dress encourages new ways of engaging with 'forms of heritage loss' (DeSilvey and Harrison 2020: 3) challenging methods to conserve, archive and contextualise bio-fashion cultural heritage.

Van Herpen's 'ECCO'-Leather Dress introduces ways of evaluating artefact end of life as material agency when considering its conservation and archiving. The leather symbolises the benefits of utilising eco-system production methods to cultivate Haute Couture fashion heritage. The dress encourages a shift in perspectives in conserving and archiving the dress because of the renewable and replenishable system the leather derives. It introduces a more holistic sense of cultural ethics (DeSilvey 2017: 184) that acknowledges the safeguarding of the environment in fabric manufacture. The degradation of the van Herpen dress may be documented as showing shared commitment of relational ontology where people and things are inseparable (Ihde and Malafouris 2018: 197) (see section 4.5). The leather resembles the qualities of the ecosystem, and this perspective encourages shorter archival systems, that support the 'end points' of eco-based fashions that historically honour environmental homogeneity with fashion artefacts.

The Rootbound #2 Dress by Diana Scherer demonstrates that aspects of fragility that often lead to degradation are integral parts of 'Designer Intent'. The growth and regrowth of plant roots allows the artist to achieve relational ontology through creative material engagement that acknowledges variables in production, condition and potential instability. Conserving and archiving these elements as current and future cultural property encourages the concept of postgrowth fashion archives. Caring for artefacts like the Rootbound dress #2 extends outside of the standards of a dress archive and textile conservation studio. In this sense, the dress reconfigures ideas surrounding cultural authorship and practice within institutions that may re-distribute conservation and interpretation that accepts change and transience as desirable qualities. Environmental materiality has been the intentional background for each designer and artist from which their material engagement is enacted (Malafouris 2013: 149). Degradation is an element of

renewable, replenishable postmodern materials helping to carry forward new forms of ‘Designer Intent’.

7.6 Summary of key findings

- Degradation can play an integral role in bio-based postmodern materials like biodegradables, eco and naturally sourced materials.
- Conserving, archiving and contextualising bio and eco-based fashion artefacts considers human and non-human stakeholders beyond the museum environment.
- ‘Designer Intent’ often includes degradation as part of their creative material engagement, making ‘Designer Intent’ a renewable element.
- ‘Responsive documentation system’ encourages a collective responsibility in archiving and interpreting bio-based materials and fashion artefacts.

Chapter 8.0 Conserving electronic textiles and digital fashion

8.1 Introduction

This chapter examines conservation practice when considering material engagement with electronic textiles (E-textiles) and digital fashion. With E-textiles and digital fashion artefacts changing and updating technology is an essential part for their material properties and qualities to be maintained. These additional aspects of technological applications encourage alternative ways to assess, document and conserve these artefacts. This calls for a different focus, momentum and urgency for archiving contemporary fashion artefacts which is different from the other themes as discussed in this thesis (see Section 3.5.5). The following sections utilises the themes of authenticity (see Chapters 4 and 5) and (un)intended degradation (see Chapters 6 and 7) and the implications E-textiles and digital fashion present to the maintenance of artefacts in archives. The term 'permanent impermanence' is used as an alternative to '(un)intentional degradation' to acknowledge the digital characteristics associated to fashion and E-textiles. The final section discusses capturing 'Designer Intent' within a digital environment of contemporary fashion artefacts. Corresponding examples of object studies considered as digital fashion in the scope of this research are examined to support notions of material authenticities and degradation in relation to 'Designer Intent'. In addition, analysing how these elements may impact the conservation and interpretative fashion practice of digital fashion. A Solar Powered Trench Coat by Junya Watanabe, c.2016-17 (see Figures 58 and 59) reapproaches postmodern fashion conservation because of embedded electronics mediated by user-led design. A 3D Printed Polyamide Overlay Suit by Karl Lagerfeld, House of Chanel, c.2015-16 presents challenges to dress archives because of the ephemeral nature of 3D printed material and the desire of the designer to include hybrid technical manufacturing to a traditional Haute Couture label (see Figures 64 and 65). In addition, the Levi's® Commuter™ Jacket with Jacquard™ by Google, c.2018, takes conservation practice and the documentation of 'Designer Intent' on another journey of working with conductive yarns that generate a personalised digital environment integrated into the fabrication of the weave (see Figures 66 and 67).

Dr. Danielle Sprecher, Menswear Archive Curator, Westminster Menswear Archive, University of Westminster, Harrow helped with virtual access to the Solar Powered Trench Coat by Junya Watanabe. This was due to COVID-19 archival restrictions and a similar approach was employed when accessing archives at the MoMu, Antwerp (see Section 5.1.2).

8.1.1 A new era: E-textiles and digital fashion

The ageing of polymer- and eco-based materials and fashion artefacts age over time that is influenced chemically and biologically. By their very nature E-textiles and digital fashion are

prototypical combining postmodern concepts of familiarity with technology and desire for rapid change (Palomo-Lovinski 2008: 124). For these material relationships to remain of historical value and continue to tell the story of E-textiles and digital fashion in museums, acknowledging continual readaptation, updating of new technologies as archival processes (Hölling 2017: 103) becomes a prerequisite of fashion conservation. These skills will enable the transmittance of these important technological fashion histories to be documented for current and future museum users. For example, the use and maintenance of digital archives to store digital files to reproduce 3D printed fashion, capturing the importance of wearable wireless technologies and archiving the (re)uses of processors and power supplies (i. e. microcontrollers, batteries) in materials which contribute to the stimulus of E-textiles. These elements require different knowledge bases that encompass digital technology which is integral to the maintenance of the artefact. These different approaches extend the meaning of material change because it is connected to the 'performativity of knowing' (Kullman 2016: 78) which acknowledges diverse mediations between fashion and technological systems creating material engagements linked to an everchanging technological environment. Therefore, calling for a wider criterion for conservation practice that accommodates digital technology as part of how material knowledge is perceived and valued in fashion history.

8.2 Authenticity, E-textiles and digital fashion artefacts

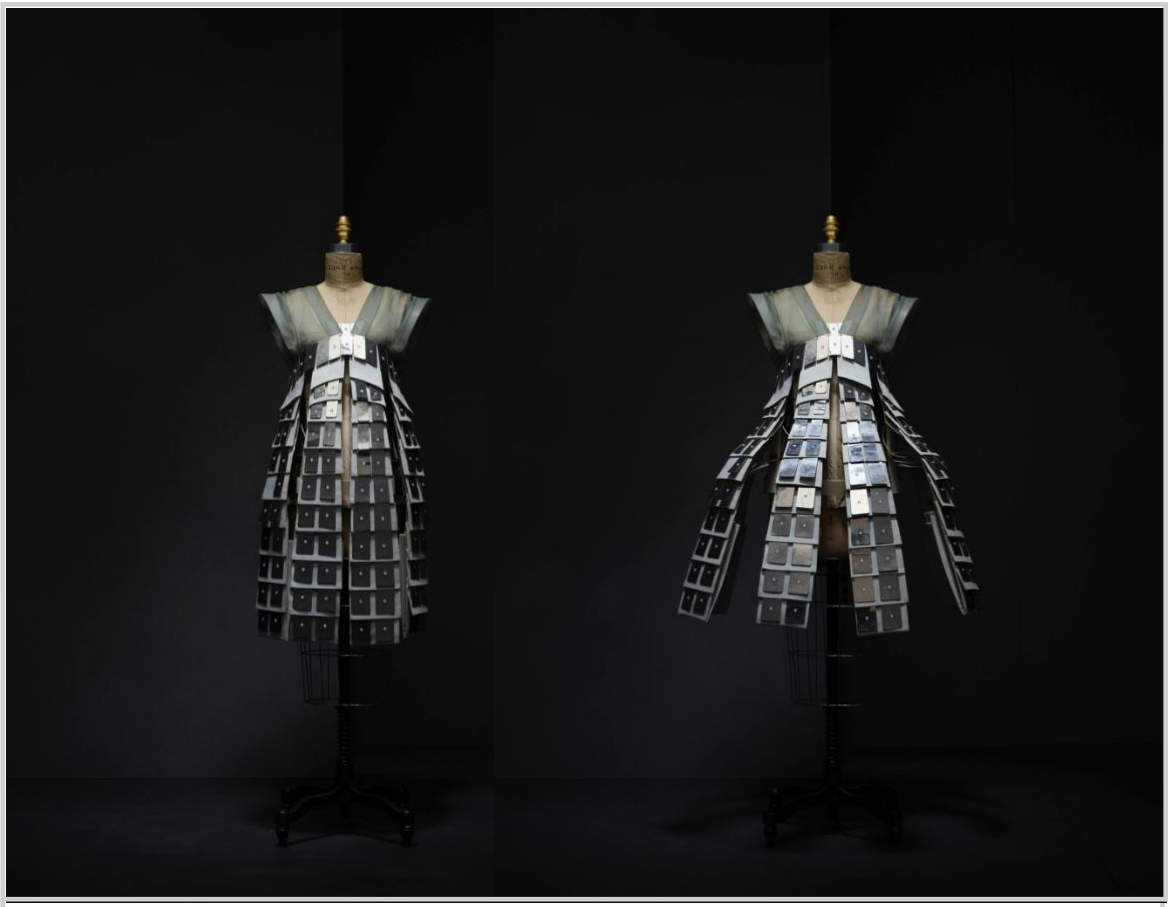
Digital technologies used in the design and processing of the materials is a material choice for some designers. Wearable technology, E-textiles and smart materials in fashion artefacts introduce different types of material engagement with the designer, one where human activity is often designed in as part of the overall material experience. Hybrid weave and embroidery techniques incorporating E-yarns can help create functional and desirable patterning that facilitates user noticeability for social safety (Hardy et al. 2019: 3). Examining the experience of users of E-textiles and digital fashion artefacts as part of the design practice of designers may help to gain an understanding of the mediation between the designer, the material and the wearer rather than employing a binary approach to the aesthetic and functional entities (van Dongen et al. 2019: 9). van Dongen et al. reaffirms '(…) the voice of the designer can provide a different perspective on the intersection of digital technologies and textiles on a material and embodied level' (Ibid: 2), meaning 'Designer Intent' can play a role in the mediation of digital fashion artefacts and users. Developments like Bluetooth technology and solar panel energy facilitate different notions of the transient, variable and changeable aspects in capturing authenticity of postmodern fashion (see Chapter 4). Light, touch and sound can stimulate other creative platforms employed by designers when engaging with digital (re)materialisation (Townsend et al. 2020a: 1-25).

Material engagement with digital fashion artefacts phenomenologically expands the artefact beyond the realm of physical representation. For example, the phenomenological experience as perceived and interpreted by the wearer and viewer through the emission of light at different intervals, colours and luminosities of fashion artefacts made with digital materials. Often these digital materials are programmed by a computer to help heighten the experience of the garments making them different from traditional garments. Alexander McQueens' LED suits for Givenchy (Vogue Runway 2022a Givenchy Fall 1999 Ready-to-Wear [Look 58]) used flashing LEDs enabling simultaneous multi-sensory material relationships and aesthetic experiences for the wearer and catwalk users (see Sections 4.6 and Chapter 5). Hussein Chalayans' Video Dress (Vogue Runway 2022b Chalayan Fall 2007 Ready-to-Wear [Look 1]), again, using LED technology created a pixelated grid which lit up and played a movie displaying moving images providing different immersive material qualities that connect the wearer, the viewer and the environment. Cute Circuits' iPhone-controlled miniskirts, jackets and accessories (Australian Fashion Week 2014 Cute Circuit: Mercedes-Benz fashion week, Fall 2014) could be controlled by the wearer through text messaging, provided different types of 'social aesthetics' (Pink: 2015: 124) that combined the sharing of personal communication from the wearer, the material and the sensorial encounters of the viewers.

8.2.1. Mediation of digital fashion and E-textiles

Communication systems between humans, technology and the environment are other factors to consider, as mentioned above, when thinking about the phenomenological experience of E-textiles and digital fashion artefacts. Watanabes' Solar Powered Trench Coat (Watanabe 2016) (see Section 8.3) uses inserted photovoltaic panels to enable the recharging of mobile phones whilst on the go bringing ubiquitous connections and communications within the environment. Similar to the Levi's® Commuter™ Jacket with Jacquard™ by Google (Levi's® 2018) which uses wireless technology as part of the UX of the artefact recognises multiple ways to connect to personal and other content (data). A cycling jacket incorporating LEDs (Woven cycling jacket incorporating LEDs 2019), developed by researchers at Nottingham Trent University, encourages a type of 'co-presence' (Pink: 2015: 125) with other road users to help awareness and safety using flashing LEDs on the elbows (see Figures 62 and 63). These artefacts show the transformative potential of materials within which digital technology is embedded. Researchers acknowledge these 'computational material languages' (Townsend et al. 2020: 8) used by designers wanting to depolarise traditional approaches to visualise and understand the existence of environment-centred design systems. This ongoing work highlights aspects of the immaterial elements of digital fashion, for example coding and wireless technology, as predominant features of the transmission of fashion (Küchler 2008: 116) and 'Designer Intent'.

Hussein Chalayan is a designer who has explored the mediation between technology and high fashion by his use of electronic mechanisms to express intangible relationships between the body and the environment (Quinn 2002: 51). Figure 56 and 57 shows the One Hundred and Eleven mechanical Dress from his Prêt-à-Porter, Spring/Summer, 2007 collection, shown in the *Manus x Machina in an Age of Technology* exhibition, The Metropolitan Museum of Art in 2016. The author's conservation of this piece in preparation for this exhibition prompted considerations surrounding the interpretation of Chalayan's 'Designer Intent' behind the dress to understand the duality of the components, the electronic elements and the other materials. Ingold (2007) raises an important point about the differences between things and thought and how this difference comes down to durability. It is this durability of Chalayan's original silhouette of the skirt being elevated that becomes curatorially important (see Figure 57). As a result, conservation solutions, through epistemic practice, are applied to achieve this silhouette for exhibition. Hölling (2017: 87-96) challenges this 'act of selection of a moment in the genealogy' (Ibid: 93) to confirm the value of the dress in capturing 'Designer Intent' of Chalayan, instead of a representation of his desire and emotions that, if recorded, would help mediate the components in the dress.



Figures 56 and 57. One Hundred and Eleven mechanical dress designed by Hussein Chalayan, Spring-Summer 2007. Loan from designer's archive for *Manus x Machina in an Age of Technology* exhibition, The Metropolitan Museum of Art (May-Sept 2016). Images: ©Nicholas Alan Cope.

The authenticity of fashion artefacts (see Chapters 4 and 5) made from digital materials create a different 'conservation narrative' (Hölling 2017a: 153), the various visual and environmental interactions with digital fashion artefacts, as listed above, mean variable material engagements between the designer, the wearer and others in the environment. The designer has more choice as to the experience created for both the wearer and the viewer. E-textiles and digital fashion can facilitate a more 'personal authenticity' (Farrington 2017: 59) because they can orientate an active material engagement through a network of communications that can be mutually shared or not. For example, wireless technology that connects the wearer to their preferred music choices on their iPhone and the haptic trigger of a camera to self-time group photographs. Similar to polymer-based and biomaterials that undergo natural material change, authenticity of E-textiles and digital fashion are ephemeral in nature and can have a limited lifespan. For example, batteries and other electronic components may have an expiration date and may require replacing, renewing or updating. These artefacts can present certain experiences which change at a certain point because the environment has changed. This means conserving the moment and (un)intended degradation of postmodern fashion technology cannot be viewed as being stable or neutral (Ihde 2009: 75).

8.2.2 Mediation of technology in archives

Transmitting desires and intentions of designers who mediate technology and fashion (Berzowska 2005) could be considered an important element to document because of the experimental approaches undertaken within the creative design process. Reflecting on catwalk experiences presented by: Givenchy, 'Y2K' ready-to-wear collection by Alexander McQueen, A/W 1999-00, on 'Tron-inspired' (Borrelli-Persson 2016) ensembles with LEDs and fluorescent circuit board embellishment; Hussein Chalayan, 'One Hundred and Eleven' Prêt-à-Porter collection, S/S 2007 (see Figures 56 and 57), inspired by re-representations of fashion history (Violette 2011: 132) by using electro technology to change a design from one silhouette to another and Iris van Herpen, 'Crystallization' Haute Couture collection, S/S 2011, exploring 'innate material capabilities' (Braddock-Clarke 2012: 199) by digitally crafted intricate 3D printed body ensembles (see Figure 48), illustrate how the designers exploit the characteristics of the materials to create hybrid forms of fashion engagement. These designers utilise the potentiality of postmodern materials using lasers, movable sections and printed forms. These fashion experiences help show the designers' desire to include technology as part of the postmodern material palette as 'mutual protagonists in solving design problems' (Bolton 2016: 12). Fashion is acknowledged as an embodied practice that includes technologies (van Dongen et al. 2019: 1) and, as Sprecher (2020) specifies, 'obsolescence of technology' presents uncertainties for current and future interpretation. For example, supporting technical documentation, knowledge and experience, and the specialist tools

become no longer available. Therefore, reactivation is lost but also the maintenance is more difficult and were possible entails reverse engineering of the garment and components.

Acquiring and caring for technological fashion could involve different, live approaches to collection care, conservation and curatorial practice to help (re)interpret the mediation of digital components embedded into fashion artefacts for exhibition. A 'responsive documentation system' may help with the maintenance, recording and (re)activations of the life of a digital fashion artefact (see Section 9.4.5). To experience the full impact of digital fashion engagement in museums is often not possible because of obsolescence and challenges with conserving technology in design conservation. Glenn (2019), independent practitioner in fashion conservator (formerly of the V&A) explains how long-term archiving can lose the electronic elements in fashion artefacts and hence creates barriers to current and future display and interpretation.

> There was meant to be an electronic dress in [the Yohji] Yamamoto [V&A exhibition, March-July 2011] and it went in [to the exhibition] but it didn't move. I think the skirt was meant to spin around, or there was some kind of movement in it. And 'cause [the skirt] was so old it was deemed too unsafe [to reactivate]. It was [considered] a fire hazard.
>
> Glenn. Independent Practitioner. 2019

Confirmed by Sprecher, curator of the Westminster Menswear Archive, London (2020), the mediation of technology often exists separately in dress archives. Batteries and other electronic components attached to the fashion artefact are accessioned and stored as separate entities and are often not included in display for security reasons. The decision to detach the electronic components for safekeeping during storage and exhibition times show the archival value placed on historical technology linked to high fashion. Technology is becoming a valued and crucial element in fashion artefacts acknowledging the importance of digital material engagement (Bolton 2002: 15-19). Sprecher (2020) explains how the archiving of wearable technologies can represent important points of reference in design history. This digital trajectory through artefacts enables users of dress archives, like fashion design students, to engage, compare and link ideas of digital fashion from the past to current and future uses of technology. This allows museum users, through digital fashion engagement, to develop an understanding of how postmodern fashion remains a carrier of technology that continues to (re)inform, transform and (re)invent digital design, existing beyond digital obsolescence.

8.2.3 Challenges in conserving digital fashion

Archivally, fashion collection care staff acknowledge the role of new digital ecologies as an important momentum in fashion history and (re)activating these technologies to fully understand and conserve 'Designer Intent' is challenging. In interviews, Glenn (2019), independent practitioner in fashion conservation (formerly of the V&A), Morris (2019), senior conservator,

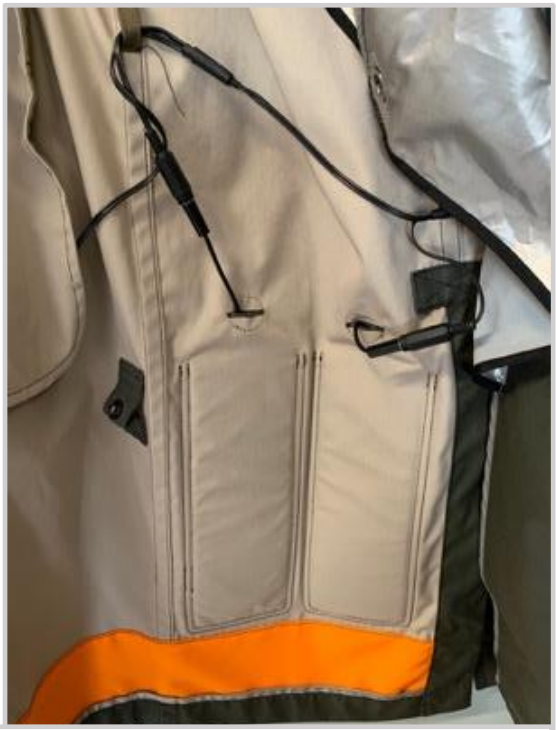
V&A, London, and Sá, S. de (2019), conservation scientist, Universidade NOVA de Lisboa, Lisbon, all identify the lack of practical and specialist knowledge in conserving and analysing electronic fashion causing a reliance on extended technical support to progress in conservation practice. In the author's professional experience (see Section 1.1), the assessment and documentation of digital fashion artefacts occurs in the conservation studio, with immediate collection care professionals, for example, conservators and curators, working with the artefacts at that time. For example, the author witnessed the reactivation of the Video Dress, A/W 2007-08 by Hussein Chalayan whilst working in the Conservation Lab at the Costume institute (2015-17), curatorially the dress was required to illuminate for photography. For exhibition, the conservation team returned to traditional conservation paradigms by disconnecting the digital components which removed the changing luminosity of the dress for the purposes of public display[26]. This prevents viewers from engaging with the different immersive, material qualities of the dress as previously discussed in Section 7.2, as intended by the designer, and is eliminated by following traditional methods of display.

During the wearing of digital fashion, the activation of the embedded technology may only be intended for a particular amount of time. The Infinity Dress by Iris van Herpen, 'Hypnosis' collection, Haute Couture, A/W2019, is displayed static for the Alice: Curiouser and Curiouser exhibition, V&A (May-Dec 2021) due to the short time scale the ensemble can be activated. The upper bodice has a rotating sculpture to create a visual illusion of feathers and rotates for two minutes, after which the battery-operated, motorised rotator needs resyncing[27]. Exhibition periods are different to periods of wear, making digital fashion engagement challenging to achieve for conservators and curators. Conserving digital fashion does not comply with the traditional system of collectable objects because digital material engagement aims to embody the characteristics of technology as part of fashion cultural use.

[26] Normally, Portable Appliance Testing (PAT) would be a consideration if artefacts require are to be activated for exhibition periods.
[27] Tonkin, L. (leanne.tonkin2017@my.ntu.ac.uk), 2021. *Iris van Herpen.* 2 June. Email to: Katy Smith (k.smith@vam.ac.uk).

8.3 Conserving authenticity in digital fashion: object study 7, Junya Watanabe Solar Powered Trench Coat, c.2016-17

Figures 58 and 59. Front and back: Solar Powered Trench Coat by Junya Watanabe for Comme des Garcons, A/W 2016-7. Westminster Menswear Archive, London. c.2016. (2019.107). Images: ©Westminster Menswear Archive, London. 2020.



Figures 60 and 61. Inner lower lining showing electrical wire connections: Solar Powered Trent Coat by Junya Watanabe for Comme des Garcons, A/W 2016-7. Westminster Menswear Archive, London. c.2016. (2019.107). Images: ©Dr. Danielle Sprecher, Westminster Menswear Archive. London. 2020.

Brief object record:

Object No: 2019.107, Westminster Menswear Archives, London, UK (Figures 58 and 59).

Designer/maker: Junya Watanabe for Comme des Garcons.

Object name: Coat with detachable photovoltaic panels, torch and cables connected to batteries as built-in changing unit.

Date: c. 2016.

Attribution: The coat was purchased specifically for the exhibition Invisible men: an anthology from the Westminster Menswear Archive, October-November 2019, to show technology integrated into fashion (Sprecher 2020). Made in Japan.

Brief description: Dark olive double breasted coat with brown buttons and six detachable solar panels inserted into custom-made clear plastic pockets along the lower body. Electric cables at the top of each panel thread through into the inside of the jacket and attach to batteries sewn into the lining (see Figures 60 and 61) (Westminster Menswear Archive 2021).

Materials: Outer: polyester cotton with polyurethane resin coating with synthetic leather binding on the clear plastic pockets with polyester elbow pads. Inner: polyester. Collar: cotton (Westminster Menswear Archive 2021).

Construction: Machine stitched throughout. Wide collar and lapels, set-in sleeves and waist height horizontal inset pockets with wide flaps. Open centre back vent. Elbow pads are laid on the outer sleeve. Checked inner centre back yoke. Detachable half inner lining in silver material to cover wires and batteries (see Figure 60). Laid on bright orange stripe along the lower inner hem (see Figures 59 and 60) (Westminster Menswear Archive 2021).

Brief overall condition: Good. Some wrinkling and fold marks on the outer. Small signs of wear and tear (Sprecher 2020).

8.3.1 Conserving environment-centred digital fashion

The Watanabe Trench Coat (2016) enables personal electronic items, like mobile phones, to sustainably charge whilst wearing the coat. Photovoltaic panels are integrated into the overall design and tailoring of the jacket helping to convert sunlight into electrical energy. Recharging digital products for communication becomes an embedded element in the act of wearing. The textile and electronic material combination create a 'multimodal' (Benyon 2019: 482) artefact materialistically combining various locations of the wearer to digitally connect and communicate through daily environmental engagement. Follett (2014) describes this environment as an 'ecosystem of devices' (Ibid: 70) where user experience (UX) is essential to progress the role of wearables in people's lives. UX involves engaging with the users feelings, thoughts, sensations and actions (Benyon 2019: n.p). The material properties and qualities are mediated through the actions of the wearer and as van Dongen (2019) stresses, wearable technology is shaped through 'how humans act in the world and how the world presents itself to them' (Ibid: 3).

Sections 4.4 and 4.5 acknowledges the transient nature of authenticity in contemporary fashion made from postmodern materials. Tracing authenticity in fashion made from digital materials, like the Watanabe Trench Coat, cannot be represented as a static moment, for example, as a displayed or stored artefact, such as fashion show photography and invitations that capture the 'look-moment' (Fury 2016; Pecorari 2021: 94-100). The engagement of the wearer with the garment and their environment through wear is not documented. These elements are perhaps archivally the most fragile and, hence, become easily lost whilst acquiring and accessioning a fashion artefact. Conserving 'Designer Intent', in this case, the response from Watanabe to fashioning digital contemporary living, could capture these more fragile elements of conserving

postmodern fashion artefacts by including material engagement as a new ontological basis to conservation documentation (see Section 8.4.2).

As new devices join the 'eco-system' so do different digital relationships between wearers and the environment introducing new ways to connect to devices in different contexts (Follett 2014: 71). The digital realm has accelerated human communication, collaboration and commerce (Ibid) meaning UX continues to adapt and connect the wearer to be the beneficiaries of this 'eco-system' and this can be captured in the intention of the designer(s). Watanabe adapts fashion design as a new capability of continual digital interaction with the scope to finesse ideas through user connection. Digital technology can respond much faster than, and at the same time takes advantage of, the eco-system. The Watanabe Trench Coat helps the wearer participate in this fast pace by continually interlocking the coat, the wearer and the eco-system through solar powered energy.

8.3.2 Towards the 'postconservation' of digital fashion

Developing creative conservation methodologies that acknowledge these types of fashion artefacts could be described as conserving the 'permanent impermanence' (Hölling 2017b: 93) of digital fashion. Hölling uses this term to explain 'artefacts are characterised by relative duration, rather than by snapshots of a reality punctuated by the illusion of material authenticity' (Ibid). This notion supports the use of solar powered energy as an active and continued aspect of the authenticity of the Watanabe Trench Coat. In time the digital technology of the solar panels and mobile devices may change to suit newer technology, changing lifestyles/expectations of wearers and environmental developments as part of its ongoing authentic state. Establishing the 'material authenticity' of E-textiles encourages different practice-led researchers to employ 'defamiliarisation techniques' (Kettley et al. 2017: 498) to investigate the wearing of E-textiles and wearable technologies. This approach considers the responses of the wearers, the use of historical dress replicas and digital devices as elements to analyse a more human-centred material engagement as a valid exploration of digital fashion and artefacts. Ihde and Malafouris (2018: 205) reaffirm 'human-technology relations are not representational relations but embodied relations'. This indicates a distributed nature to 'Designer Intent' (see Section 4.2) as an embodied aspect of designing E-textiles and digital fashion artefacts. These considerations may help develop epistemological constraints in fashion conservation practice which helps the conservator to rethink time and its conceptualisation, which, often is redirected to notions of original or authentic condition (Hölling 2017b: 93) in the archiving of digital fashion artefacts.

Capturing authenticity of digital fashion artefacts introduces different ideas on temporality in dress archives. Functional and aesthetic material properties and qualities are mediated through

continual change in human experiences and environmental spaces. A 'postconservation' approach could encourage and enable postmodern material and fashion engagement as a method for documenting 'Designer Intent' in the archiving of new types of materialities and intermediality that avoids dichotomous storage practice (see Section 8.2.3) and encourages reciprocal and continuous archival exchange (Hölling 2017a: 152).

Utilising the toolkit would enable collection care staff to record details of Watanabe's ambitions to work with digital technology as a method to engage the wearer and others. This would aid understanding on Watanabe's aim to mediate the aesthetic and functional qualities of the Solar Panel Coat.

8.4 'Permanent impermanence' of E-textiles and digital fashion

E-textiles present different ephemeral qualities than other postmodern materials mentioned in this thesis, for example, the breakdown of material properties and intended degradation in polymer, eco and bio-based materials (see Chapters 4 and 6). As more coding is used to develop and produce garments, it will become more necessary to use embedded processors[28] to store the memory of these codes. Firstly, this presents challenges because embedded processors have a limited time span before changes to the binary data and programme begin and digital data may be lost[29.] Secondly, the difficultly in collecting these codes from materials engineers and software developers, because of intellectual property issues,[30]there is a real risk of losing large segments of postmodern fashion heritage. This highlights a real challenge if coded aspects of a digital fashion artefact, including embedded devices, are produced using coding[31].

Wearable technologies have repeatable elements in response to stimulus such as strain or temperature change (Kettley 2016: 10). Aspects of intimacy and creating new emotional experiences through wear means constant digital syncing between the artefact, wearer, and the environment (Levi's® 2019). The future of digital artefacts may include a 'multimode' of concepts as design researchers attempt to produce a 'deconstructed garment system' (Townsend et al. 2020b: 102) that 'comprises an Internet of Things (IoT)' (Ibid: 102). E-textiles and digital fashion often include the use of batteries, digital data,[32] source-codes[33] and firmware[34], and solar powers

[28] A type of microprocessor designed into a system to control electrical and mechanical functions.
[29] Tonkin, L., 2021. Conversation with Dr. David Downes, Nottingham Trent University, Nottingham, July 16 2021.
[30] Tonkin, L., 2021. Conversation with Glenn Petersen, conservator, The Costume Institute, The Metropolitan Museum of Art, New York, 23 June.
[31] Tonkin, L., 2021. Conversation with Dr. David Downes, Nottingham Trent University, Nottingham, July 16 2021.
[32] Data that represents other forms of data using specific machine language systems that can be interpreted by various technologies.
[33] Programming statements that are created by a programmer with a text editor or a visual programming tool and then saved in a file.
[34] A type of software that is etched directly into a piece of hardware.

that enable the design to function. Maintaining, adapting, renewing, reproducing, transferring, and replicating parts of the artefact could enable continual conservation and interpretation of digital fashion. The use of video and photographs may help with augmentation to display[35] as contributing to the paradigm of intentionality to enable continual understanding of digital components that no longer work. Digital obsolescence and degradation could be documented as informing the design's identity and as a symbol of encouraging good and expressive design (Sprecher 2020).

8.4.1 Conserving E-textiles design prototypes

Figure 62. Woven cycling jacket incorporating LEDs within electronic yarns in the elbow, Nottingham Trent University, 2019. Image: ©Leanne Tonkin. Nottingham. 2020.

Figure 63. Battery pack on inner lining pocket of cycling jacket. Image: ©Leanne Tonkin. Nottingham. 2020.

The examination and condition assessment of a cycling jacket designed as a prototypical demonstrator[36] (see Figure 62) during the research for this thesis, introduced the author to aspects of documenting a fully working digital fashion artefact. Battery packs with small circuit boards are inserted into internal pockets positioned on the inner lining where the external pockets are located (see Figure 63). A switch helps activate an E-yarn with LEDs incorporated into the elbow areas of the sleeves. E-yarn has a conductive core with LEDs or sensors held within a textile sleeve (Hardy et al. 2019: 1). The immediate response of the author was to investigate the inside of the jacket to examine how and where the LEDs were integrated into the construction of the weave. Assessing battery packs, surface embroidery and charger attachments became a conservation priority because their material properties and qualities were different from the rest of the textile components yet were integral to the overall design. Heat, health and safety (i. e. potential fire hazards), and battery leakages are some of the considerations when documenting

[35] Tonkin, L., 2021. Telephone conversation with Joanne Hackett, former head of textile and fashion conservation, V&A, currently lecturer in textile conservation, University of Glasgow, Glasgow, 22 June.
[36] Functional Electronic Textiles Research Project, Nottingham Trent University, Nottingham, 2015-19.

digital materials like the cycling jacket. These components manipulate the transient and extra functional aspects of the design, such as the illumination levels of the LEDs in the sleeves and they form part of a 'continual identity' (see Sections 5.4.3 and 9.3) of the artefact.

The location, illumination and flash of the LEDs are also an essential part of the cycling jacket. The aim of the research design team at Nottingham Trent University (NTU), UK, was to improve and develop rider visibility through garment design for cyclists, to increase their 'conspicuousness' as road users (Ibid: 3). Documenting the luminosity of the LEDs on the elbows was important to help record how the lighting effects worked in relation to the jacket, the user (cyclist) and (road) users. This aspect of the documentation proved challenging because of the 1-2 second time delay between the LEDs being lit and unlit. To avoid losing information, the author used the iPhone video app to help capture the flashing light patterning and original luminosity of the E-yarn. This observation led to considering how the battery lifetime may impact the future flash times and related luminosity and how replacement technology will impact the conservation of these aspects of the design. These iterations could mean variations in material engagement for current and future cultural stakeholders because of replacing, reconfiguring and recoding the material. Possibly, adopting a 'responsive documentation system' (see section 9.4.5) that enables the archive to take on a more active role in responding and developing ways to support a 'continual identity' model. Maintaining the continuity of the cycling jacket by ensuring the incorporated LEDs remain part of the (re)interpretation of the jacket, will help to conserve the intent of the NTU design team and their contribution to community road safety.

8.4.2 Towards a contextual practice

Conserving digital technologies in fashion may encourage a contextual practice that adapts to changing resources and environments incorporating different kinds of values in the design process (Kroes and Verbeek 2014: 6). Conservators may find themselves asserting more freedom in their practice enabling them to recognise and conserve multiple versions of materials. They are the specialist viewers and experiencers of materials with the technical skills to modify and determine how artefacts are exhibited (Muñoz Viñas 2020: 69). Multiple approaches and views on long-term commitments to conserving the discoveries of new postmodern materials and materialities, will become dependent on how long the material remains stable before reaching its value as an end-of-product life in the archive (see Section 7.3.2). Materials connected to UX (see Section 8.2.1) and human-computer interaction (HCI) will be influenced by the experience of the wearer during continuous changeable events. Such as ongoing development in digital technologies and the desires of the designer and design teams to improve UX and HCI and how these products merge within the environment and human requirements and expressive needs (Winters 2020: 218). Collecting materials in archives may involve different archival frameworks

introducing hybrid approaches to dress conservation as digital materials can be constantly movable, novel and transitional, and contextual (Hölling 2016b: 83).

8.5 Conserving ‘permanent impermanence’ in digital fashion: object study 8, 3D printed polyamide overlay suit by Karl Lagerfeld, House of Chanel, c.2015

Figure 64. Ensemble, 3D printed (SLS) white polyamide overlay, hand-stitched clear crystals with gold sequined underlayer (see figure 65), House of CHANEL, Karl Lagerfeld, Haute Couture, A/W 2015-6. The Metropolitan Museum of Art, c.2016. (2016.379a-c). Image: ©Nicholas Alan Cope.

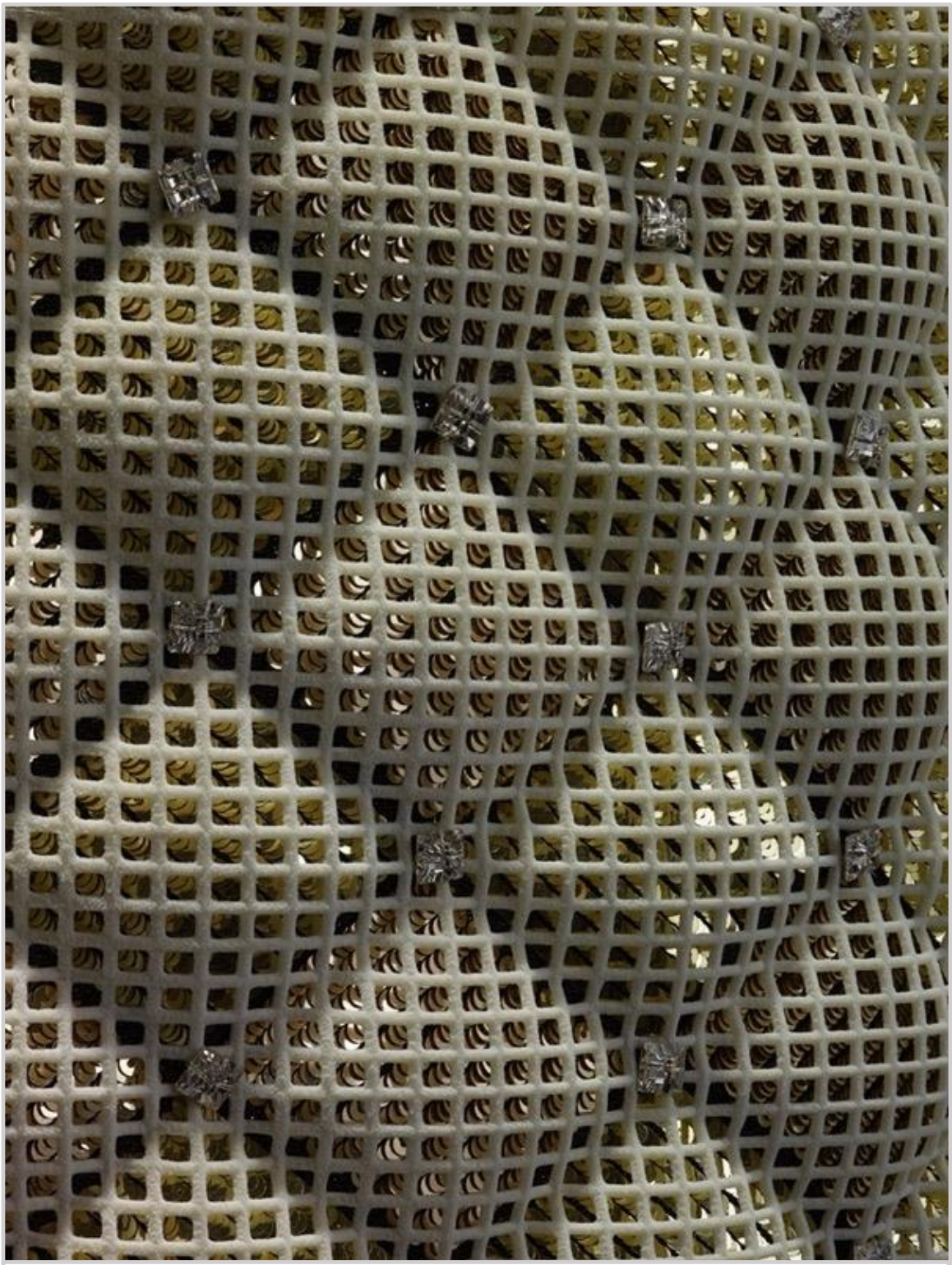


Figure 65. Detail showing 3D printed (SLS) white polyamide overlay, hand-stitched clear crystals and gold synthetic sequins on black silk crêpe de chine, House of CHANEL, Karl Lagerfeld, Haute Couture, A/W 2015-6. The Metropolitan Museum of Art, c.2016. (2016.379a-c). Image: ©Nicholas Alan Cope.

Brief object record:

Object No: 2016.379a-c, The Costume Institute, The Metropolitan Museum of Art, New York, USA (Figure 64).

Designer/maker: Karl Lagerfeld for CHANEL.

Object name: Ensemble with 3D printed overlay in a lozenge shaped design and princess cut crystals positioned evenly within the pattern.

Date: c. 2015.

Attribution: The ensemble was purchased for the exhibition *Manus x Machina in an Age of Technology*, May – September 2016, to show new technologies being applied to traditional Haute Couture.

Brief description: White two-piece 3D printed suit, made to look quilted, with hand-stitched clear crystals. Hand-embroidered gold braiding and underlayer, by House of Lesage, is visible through the quilt-like overlay (Figure 64) (Bolton 2016: 59).

Materials: Polyamide outer layer with black silk crêpe de chine underlayer and braiding appliquéd with gold synthetic sequins throughout (Bolton 2016: 59).

Construction: 3D printed overlay made by Selective Laser Sintering (SLS), the jacket is in one piece with seams (Bolton 2016: xxv). Small square patterning makes up the overall structure of the 3D layer (Figure 65). Hand stitched braiding is applied to all outer edges, including pocket openings and waistline. Hand embroidered sequined underlayer is attached to the 3D outer layer forming a double-layer and quilted overall effect.

Brief overall condition: Good when assessed by the author in 2016.

8.5.1 Conserving 3D printed fashion artefacts

The CHANEL suit by Karl Lagerfeld (2015) was co-created with a 3D printing company called Materialise in Belgium who developed and produced the polyamide printed overlay. Additive manufacturing and 3D printing are umbrella terms which include various Rapid Prototyping (RP) methods that fabricate materials layer by layer to form objects, for example SLS, stereolithography (SLA®) and fused deposition modelling (FDM®) (Coon et al. 2016: 8-13).

Manufacturing methods that exploit prototypical materials for fashion, like 3D printing, are an example of engineering collaboration, materials and fashion artefacts, diversifying and radicalising the availability and potential of postmodern materials. In this respect, the design process is becoming more diverse because of the collaborative efforts between engineers, designers, and technicians required to accomplish this mediation (Küchler 2008: 103; Papastavrou et al. 2020: 191-210). The CHANEL suit is a symbol of how 3D printing can democratise Haute Couture because of the diverse community involved in developing a fashion product, as well as the engagement with design tools that are becoming part of a biomaterial evolution that supports sustainable design practice (Loy et al. 2016: 41; Papastavrou et al. 2020: 201).

Artefacts, like the CHANEL suit, made from polyamide using SLS are known to degrade shortly after manufacturing due to various (and unknown) factors, for example, the impact building parameters, use of recycled material and presence of additives. Degradation can appear as discolouration of surfaces, brittleness and breakage (Coon et al. 2016: 7; van de Braak et al. 2017; Tonkin and Scaturro 2018: 162). These considerations are beginning to challenge the scope in knowledge and the role of the fashion conservator because of the uniqueness in manufacture and combination of materials, as well as acknowledging the material engagement between the design stakeholders involved in the manufacturing process. In other words, the material itself does not tell the entire story, therefore fashion interpretive practice can be limited by conserving the artefact alone. Taking a traditional practical approach in conserving and interpreting digital fashion artefacts becomes obsolete because these approaches do not acknowledge the ephemeral nature of the material as a side product and the designer is only interested in the short-term usefulness of the artefact.

The ephemeral nature of the material is not an 'agent' of material engagement but a consequence that the designer is unconcerned about. Designers engage with the aesthetic possibilities that technology can offer them and not with longevity. Karl Lagerfeld expresses his desire to engage with these new possibilities to renew traditional archival looks, for example the Chanel suit, similar to D-Air Lab for Dior and the approach taken by NTU to utilise dress archives to widen possibilities in wearing E-textile designs (Townsend et al. 2020b). Digital technology, like 3D printing, increases the choices for Lagerfeld to continue to revolutionise classical looks. Interviewed by Andrew Bolton, for *ManusxMachina: Fashion in an Age of Technology* exhibition, Lagerfeld refers to updating textures of traditional materials as an opportunity for (re)luxuriance, remaining relevant and reforming the traditions of the well-regarded high fashion house.

> My idea was to take the most iconic [CHANEL] suit of the twentieth century and make a twenty-first century version, which, technically, was impossible and unimaginable in the period it was invented. I wanted to change it, update it by using the newest and most advanced technology.
>
> Karl Lagerfeld, CHANEL. In: Bolton 2016: xxv.

8.5.2 Towards 'postdegradation'

In the conservation of digital fashion artefacts acknowledging a 'postdegradation' stage, a term often used in biological studies, could support a more active and sustainable approach in conservation and curatorial practice, helping the continual existence and identity of postmodern digital fashion. Degradation that occurs in traditional fashion materials, like silk, cotton and wool is more accepted in archives than that of plastics which are viewed as only valuable if in pristine condition (Coon et al. 2016: 7). Age adds value to traditional materials and conserving degrading artefacts adds to that value (Muñoz Viñas 2005: 101). Samson (2019), curator of Haute Couture and contemporary design curator, Palais Galliera, Cullen (2019), head of modern textiles and fashion, V&A, London, and Murray (2019), curator of fashion and textiles, V&A, London (2019), confirm museum collecting policies and curatorial priorities prefer contemporary fashion artefacts to be a long-term investment in dress archives, this preference helps to increase current and future exhibition stories[37]. The importance of storytelling in collecting E-textiles and digital fashion artefacts is different because of the physical alteration and transition of the materials, the network of stakeholders involved in the coding of designs, and the migration of digital files used to engineer designs. Developing digital libraries to store STL files, native to Stereolithography (SLA) and using co-documentation formats between conservators and curators (see Section 6.4.2), may help to evolve the future of digital fashion archives. Abilities to use and manipulate the design files are ephemeral, constant transitional aspects that are part of digital fashion design and, therefore, in order to conserve 'Designer Intent' means to value the creative freedom of the designer who continues to technically improve, enhance and adapt to everchanging digital ecologies (see Section 8.3.1).

Using the toolkit would be useful to learn how Lagerfeld, his team and the house would like the suit to be remembered and what they thought of the current condition of the suit. The toolkit would help record this information when considering that the 3D technology will degrade faster than the traditionally made suits by CHANEL.

[37] Tonkin, L., 2021. Conversation with Judith Edgar, curator of lace, costume and textiles collection Nottingham City Museums and Galleries, 22 June.

8.6 Discussion

'Designer Intent' can be multi-faceted within the realm of digital design as a result of the involvement of other design stakeholders, collaborators and continual stages of prototyping. The NTU cycling jacket is an example of an artefact created through co-design methods to help develop and engage in spaces of participatory culture (Kent 2017: 29). The built environment becomes an aspect of 'Designer Intent' where digital material engagement can provide substantial self-learning for the conservator because of the 'permanent availability of virtual information' (Küchler 2008: 106). In a way, the developers of the NTU cycling jacket have located a social process through identifying material innovation (Ibid: 103) in the wearing of E-Yarns to create social relations with other viewers/users of the jacket. The CHANEL suit demonstrates how new technologies through digital coding hybridise the choice of material properties for designers, thus de-materialising the archiving of historical information and making the immaterial an important agent to conserve (Ibid: 116). Conserving and interpreting fashion prototypical artefacts as part of 'Designer Intent' could create new ontologies in fashion interpretive practice, avoiding losses in digital fashion heritage. As Ehrman (2019) independent dress historian and former senior curator, fashion and textiles, V&A, London, suggests, prototyping is a critical and often extended part of the design process that is an untold part of postmodern fashion history, limiting social awareness in understanding the processes, rationales and dynamics of developing potential postmodern materials and fashion artefacts.

> (…) in an exhibition like *Fashioned from Nature*, they were [artefacts] in the exhibition that I felt the designers would be prepared to donate. But I didn't ask for them because I knew they were in a prototyping stage. I thought I'd wait. I thought I would rather get [the artefact] if it actually became commercially available [because] the museum would prefer that [to] have some idea of longevity. But then, somebody said to me, well actually is that a good decision? (…) What most of the public don't understand is that prototyping can go on for years. Particularly in this new stage of innovation, in terms textiles and materials, where we're looking for alternatives to leather. Looking for ones that are not made from fossil fuels. [Prototyping] can take decades.
>
> Ehrman, independent dress historian. 2019.

8.6.1 Conserving UX and smart technologies

The author examined a Levi's® Commuter™ Jacket (Figures 65 and 66) with conductive thread added to the yarn layer and interlinked with the weave. The thread is purposely positioned in the cuff to be used as a navigation tool and is activated by an app called Jacquard™ by Google. Bluetooth technology is key to the UX of the jacket, replacing cables using wireless technology to synchronize information, enabling multiple ways to connect through active wear.

Figure 66. Levi's® Commuter™ Jacket with Jacquard™ by Google, 2018. Nottingham Trent University, Nottingham. c.2018. Image: ©Leanne Tonkin. 2018.

Figure 67. Detail of conductive thread on proper left cuff, 2018. Nottingham Trent University, Nottingham. c.2018. Image: ©Leanne Tonkin. 2018.

Digital material engagement of fashion artefacts is introduced by examining the Watanabe Trench Coat whereby a 'postconservation' approach could acknowledge shorter transient and temporal aspects in documenting authenticity, 'permanent impermanence' and 'Designer Intent' (see Section 6.4 and 6.5). The Levi's® Commuter™ Jacket highlights the experience of materiality through embodiment (van Dongen et al. 2019: 2). By touching, tapping and swiping the rows of conductive thread on the cuff, the jacket connects and activates an iPhone and headphones amalgamating UX and digital material engagement in which the wearing of the jacket is integral. This transformative process of material engagement through the digital crafting of the cuff helps evoke hybrid emotional values found in human interaction and relationships (Niedderer and Townsend 2014: 625). This shows how haptic technology of fashion artefacts helps the wearer to remember and experience (im)materiality whilst gliding through memories (Malafouris 2013: 80). Material engagement, like that provided by the technology in the Levi's® Commuter™ Jacket, can be transformative, evolving and progressive because of the ongoing drive to improve and make relevant UX and smart technologies.

Conserving digital fashion artefacts could not be viewed as being stable entities in dress archives because 'Designer Intent' encompasses a 'mediated intentionality' (Idhe and Malafouris 2018: 208). This is explained by Idhe and Malafouris as the 'relations we have with the world around us are either mediated by or directed as technological devices and artefacts' (Ibid). It becomes important to consider that E-textiles and digital fashion artefacts mediate human perceptions and actions (van Dongen et al. 2019: 3) as part of a wider, ongoing and diverse ecosystem that includes the interlocking and interacting of digital devices. In the act of interpretation, digital

technologies continually readdress and rethink how humans will want to experience the environment in the future, they become prototypical by nature.

8.6.2 Postphenomenology and conserving digital fashion

Postphenomenology is a strand of philosophy of technology introduced by Don Ihde (1995), that studies technology in terms of the relations between human beings and technological artefacts combined with empirical examination (see Section 3.7) (Verbeek 2016: 190). It is an emerging tool to analyse practice-led research in design, by examining the way fashion artefacts mediate relationships between humans and the environment (van Dongen et al, 2019: 2; van Dongen and Toussaint 2020: 113). This theoretical approach in examining artefacts is unexplored in conservation practice, this research has recognised this approach to be useful when documenting and conserving E-textiles and digital fashion artefacts when compared to traditional approaches to object-based analysis (Brooks 2000; Pearce 1994; Caple 2006). The object-studies in this chapter, illustrate how postmodern fashion conservation can reconsider and recreate conservation practice when working with digital components that perform, age and are valued in different ways in comparison to traditional materials. Postphenomenology, along with MET (see Section 3.7), acknowledges 'relational ontology' (Ihde and Malafouris 2019: 196) where humans and artefacts can be inseparably linked (Ibid: 197) and this is achieved through material engagement (Ibid: 196) which can be defined as:

> …a long-term commitment to the discovery of new varieties of material forms, so far as it is possible in a given historical situation, through a saturated, situated engagement of thinking and feeling with things and form-generating materials.
>
> (Ihde and Malafouris 2018: 196)

Conserving E-textiles and digital fashion may require more emphasis on renewing and reapproaching conservation and interpretive fashion practices and experiences and less on the representational. This could be considered as a 'postdegradation' period in the postconservation of digital fashion artefacts (see Sections 8.3.2 and 8.5.2).

8.7 Summary of key findings

- E-textiles and digital fashions create new archive ontologies through technological obsolescence.
- Design communities can produce various formats of digital documentation within the design process that could contribute to digital fashion heritage.
- Contextual approaches in conserving digital fashion may increase the significance of intangible evidence (postdegradation) once the artefact is no longer useful.
- Postphenomenology and MET are useful when considering different perspectives in conservation that supports digital artefacts, environments and communities.

- Aspects of E-textiles and digital fashion include functionality that has a temporal component and requirements for other elements not part of the garment (i. e. smart phone).
- Digital data that is ephemeral and unrecoverable if lost (i. e. computer code and programs) necessitate a reconsideration of the significance of the object with respect of other supporting digital information and objects.

Chapter 9.0 Further discussion and toolkit

9.1 Introduction

This chapter reiterates the key discussion points raised during this work leading onto the tangible outcome of a suggested toolkit, to aid collection care practitioners working with contemporary fashion artefacts and designers (see Section 9.4). The main hypothesis of this research was to examine 'Designer Intent' as a methodology to conserve postmodern fashion made with postmodern materials, which led to the main research question: How can 'Designer Intent' be understood, captured and conserved alongside an archived fashion artefact? This question led the researcher onto examining the kind of information required to conserve 'Designer Intent' once the original materiality of the object no longer exists, whereby 'material longevity' may not be intended. Progressing onto exploring what type of information is required when the original material condition of a fashion artefact has changed, and how do collection care staff in museums of postmodern fashion embrace a heterogeneity of designers who use diverse, intertwining design systems and paradigms. Then, analysing how conservators and curators embrace heterogenous design approaches and outcomes. These enquires developed the following research aims and objectives revisited here and presented in Chapter 1 (see Section 1.4):

Research aims

RA 1: To research the concept of 'Designer Intent' as a methodology that supports the conservation of postmodern materials and fashion artefacts.

RA 2: Develop a rationale for conserving 'Designer Intent' as part of a museum archival protocol to support postmodern fashion artefacts beyond their physical existence.

RA 3: Develop a toolkit to record 'Designer Intent' when collecting, conserving and exhibiting postmodern fashion artefacts.

Research objectives

RO 1: Survey professional collection care staff of contemporary fashion artefacts and conceptual designers to gain perspectives on their experiences with new materials.

RO 2: Undertake object studies of postmodern and postgrowth fashion artefacts as material and archival evidence to support key findings.

RO 3: Gain insights from other professionals to assess the effectiveness of 'Designer Intent' being encapsulated in the form of a toolkit as part of the conservation and curation.

'Designer Intent' as a 'postconservation' methodology is discussed by drawing on key literature, object studies and methodological approaches used to test these concepts, and further, the potential benefits this approach may bring to the use(s) and user(s) of postmodern fashion

heritage. Relational ontology and fashion artefacts are discussed as a main aspect drawn from the MET (Malafouris 2013) and postphenomenological (Ihde 1995; 2009; Ihde and Malafouris (2018: 195-214) based epistemology employed in object studies. To reiterate, this approach encourages a combination of cognition with material culture to deepen understanding of the way we think and emotionally engage with 'things' as a shared commitment to the relational ontology in which people and things are inseparably linked (Ihde and Malafouris 2018: 197) (see Chapters 5, 7 and Section 3.7). The 'continual identity' model, derived from this research, is discussed alongside the 'postdegradation' of post(growth) modern fashion, and the implications of a new Material Conservation Theory (MCT) that supports diverse material engagements between postmodern fashion artefacts and their users, the museum stakeholders and the viewers.

9.2 'Designer Intent': a postconservation methodology

'Designer Intent: a postconservation methodology' is the central hypothesis underpinning this thesis which examines ways to document 'Designer Intent' as a useful tool when (re)considering aspects of authenticity and material originality (see Chapters 4 and 5). These aspects, in real time, can be the most distant from each other (de Sá et al. 2014: 193) in conserving postmodern fashion artefacts (see Section and 5.5). de Sá et al. (2014) support the approach taken in this thesis, by examining the ephemeral nature of postmodern materials through the physical properties and applications of polyurethane (see Section 5.2.1) and its popular usage in fashion artefacts. Conserving polyurethane brings challenges to fashion museums (de Sá et al. 2014: 193-203; Verkens 2021; Rizzo and Scaturro 2021: 1-11) with artefacts that represent the works of contemporary fashion designers, for example, André Courrèges (see Figure 8), Martin Margiela (see Section 5.2) and Rei Kawakubo (see Section 2.8.2). Asking similar research questions de Sá et al. (2014) reaffirm the requirements of the toolkit by stating, 'In order to preserve the object's authenticity, key documentation needs to be produced through a close collaboration with fashion houses, industries and museums.' (Ibid: 195). Object studies like the cellulose acetate (CA) belts designed by Elsa Schiaparelli and Jean Clément, c. 1938, exemplify the consequences of using modern materials in fashion accessories in museum collections. In practice, identifying the chemical, physical and mechanical breakdown of the CA means they will have limited exhibition time, if any, because of their fragile condition (Tonkin 2017: 156-157). This research demonstrates that the belts can relate different material stories which recognises their 'cognitive life' (Malafouris 2013: 44) as an object, therefore encouraging diverse material relationships (see Chapter 5) and aesthetic experiences (see Sections 5.2, 5.3 and 5.4) by multiple stakeholders in evaluating their values, meanings and functions (Henderson 2020: 196) as a significant design object by a significant contributor (Schiaparelli and Clément) to historical modern fashion.

9.2.1 Relational ontology and fashion artefacts

Employing relational ontological approaches (see Section 2.10.2) allowed a broader understanding and appreciation of 'Designer Intent' recognising shared and continual material relationships between people and artefacts. Aspects of transient and hybrid relationships in recording 'Designer Intent' (see Section 4.2) may prevent 'mastery and control' (Malafouris 2013: 53) by professional stakeholders in museums that can develop cognitive barriers in museums because of singular and static representations of material engagement. By collectively recording aspects of the designer, the artefact and the designer's relation to the artefact may be considered as 'ontological recommendations' (Ibid: 53) for conserving the past, present and future that include considerations of diverse material engagements with fashion artefacts. For example, the importance of an iPhone flash to momentarily engage with the photosensitive ANREALAGE printed dress as part of its digital social phenomenon and authentic state (see Section 5.3).

Advocating a postconservation approach, an outcome of this research, supports diverse and extended stories about the designer, their choices of postmodern materials and the varying states of authenticities (through changes in condition) of the fashion object. Samson (2019), curator of Haute Couture and contemporary design, Palais Galliera, reaffirms the pressures to 'justify the interest of the piece, in terms of acquisition, in terms of history, in terms of conservation and in terms of our own collection.' Recent perceptions on conservation and access have similarly noted how artefacts can be managed based on aspects of justification (Henderson 2020: 201), as mentioned above by Samson. For example, thinking about the user-benefit of the artefact over time can often be managed by the measuring and analysing of tangible changes (Ibid). Henderson states, 'Permission and access are loaded and socially charged issues that can speak of power and control, therefore these approaches and their place in conservation practice arguably require examination' (Ibid). If museum policies at the Palais Galliera were to allow the flash of visitors' iPhones to enable material engagement with the photosensitive print on the ANREALAGE dress, this decision by Galliera may help widen understandings of 'Designer Intent', that of Morinaga, by way of sharing material relationships, aesthetic experiences as part of the users' 'fashion memories' as types of portable cultural assets of postmodern material and fashion heritage (see Section 8.4.1; Tonkin et al. 2022).

9.3 'Continual identity' and 'postdegradation' of post(growth)modern fashion

Using contextual practice (see Section 8.4.2) can document fashion memory as a cognitive element of condition checking that recognises the value of diverse material engagement as an aspect of fashion cultural engagement. Recognising a more embodied conservation practice to help conserve these emotional responses to materials can acknowledge a significant part of how postmodern designers live through their work, often through emotional interplay, exploiting and

combining of material qualities until the end-product, the artefact, engulfs a version of their concepts. Jo Cope, a conceptual fashion designer and artist, gives an example of the type of documentation that is useful to conservators as contextual practice in recording diverse material engagements of designers. Cope expresses her intent to engage multi users through embodied experience that may contribute as an aspect of 'continual identity' through the users' own material relationships and aesthetic experiences.

> What I've noticed is when people do look at the pieces, they really observe the sense of [the shoes] being able to be worn. I always intended that. If [the shoes] look like they could be worn, you can see the sense of the person in them because they've been made to an exact foot shape. People embed themselves in [the shoes]. Even if they are the wrong size, they can imagine themselves in them in a more mental sense. I think the fact they have that sense of wear [is important]. (…) Some of the more recent pieces [have] been bigger. I'm thinking how multi people can wear these, multiple people could perform in these. The great thing about some of the pieces I make is that there is no specific size. I can actually create them for one size fits all. Which is really ideal, concept wise.
>
> Jo Cope, artist. 2019.

Cope relates to the benefits of 'continual identity' through imagined wear to achieve communal spirit between fashion artefacts and viewers. 'Designer Intent' becomes part of an 'accumulative biographies' (Malafouris 2018a: 756) model to include, diversify and continue to enhance the experiences of user(s) of her artefacts. She employs a sense that artefacts work best over time for viewers to enable 'temporal phenomena that operate at different experimental levels' (Ibid). Specifically, Cope does not assume general fundamental differences between the viewer and her artefacts. Caring for postmodern materials and fashion artefacts, like Cope's work, may also work best over time if aspects of changeability and variability are recognised as archival attributes (Hölling 2015: 75) enabling unrestricted potentialities for material stories to intertwine with the lives and emotions of fashion cultural users. This would mean the fashion archive is never closed, limited or exhausted because it would be supported by a 'continual identity' model in extending ongoing care to produce multicultural values to diverse users of fashion history. When discussing the yellowing of some 1960s disposable dresses, Debo (2019), director and chief curator, MoMu, illustrates the lack of 'continual identity' with these artefacts; the intended disposal of the dresses has not been honoured and the yellowing discolouration has formed a distance between the dresses and potential use(s) and user(s) of the artefacts. Symbolically this closes the MoMu archive because of the degradation creating a sense of loss of value and aesthetic forming a distance between 'Designer Intent' and the dresses. If the 'cognitive life' (Malafouris 2018b: 8) of these dresses were acknowledged, similar to that of Cope's approach, Debo may enable different forms of material engagement to co-exist with paper fashion as a new way for MoMu visitors to continually identity with 1960s disposable fashion to help establish ideas around authenticating the discolouration and intended disposability (see Chapters 4 and 6).

> (..) Objects of which the designer has never intended it [to be] a permanent object, (…) for example, paper dresses of the sixties. These were meant [to be] throw away objects [with the] idea you could have a great wardrobe of dresses for each occasion, you wear one, you throw it away in the evening, you wear another one. (…) We have some of them in the collection and they look yellowish [and do not] look that fresh anymore [because] it was not intended by the designer to keep them that long. And I think they lose that sort of freshness, the whole sixties philosophy and idea behind it. And visually you cannot communicate that in the same way [that the dress was] communicated [when it was first made].
>
> Kaat Debo, MoMu. 2019.

Debo expresses that 'Designer Intent' is lost. A 'continual identity' model may re-orientate aspects of longevity in archives, one that accepts growth in material knowledge through aspects of chemical breakdown, degradation and iterations of postmodern materials that 'archivally act' differently to the initial intentions of the designer. The 'paper dresses of the sixties', if selected for exhibition today, could be considered as an expression of a wider and more holistic range of fashion interpretive practice that engages multi-perspectives of modern materials and 'Designer Intent' of the past and present. Following the MET collapses material boundaries between fashion artefacts and their potential cultural users by focusing on the 'cognitive life of things' (Malafouris 2013: 230), as new epistemology in experiencing material change and transience.

> 'Boundaries have a great effect on our understanding of who we (as cognizers) are, and thus on our conceptions of agency and persons'
>
> (Malafouris 2013: 230)

Chapter 8 demonstrates that these material boundaries are continuing to shift as progressive materials, such as smart technologies, rapid prototyping and Chapter 5 discusses bio-based materials which can take on an external representation to users. For example, 3D printed materials can be considered non-functional because they are prototypical and have no end-use (Tonkin and Scaturro 2018: 155) and embedded electronics in textiles show experimental integration to help enhance human sociocultural dynamics (van Dongen et al. 2019). Designers like Pauline van Dongen, Iris van Herpen and Suzanne Lee are developing materials to be responsive, through activation, reaction and digital intersections with embedded emotional content which may require different conservation dialogues, artefact interrelationships and documentational evidence. Radical interdisciplinary fields (and stakeholders) are exploring different relationships between artefacts, bodies and materiality (Townsend et al. 2020a: 12). New types of materialities are emerging from diverse creative sources which amalgamate newly explored craft practices of the designer and internal representation of the 'Designers Intent' and beliefs or the implicit representation and codification through the artefact (Malafouris 2021: 104). Conserving postmodern materials has elements that reconceptualise longevity (and the archive) for contemporary cultural users of fashion heritage today, so future interpretation can take place.

The postdegradation of fashion artefacts would acknowledge a continually renewable material engagement that is sustained over time even if the material is substantially altered or erased. It is the process of transformation, changeability and variability (and loss) that can connect to a 'continual identity' model that could contribute to a new Material Conservation Theory (MCT) that adopts a less constrained version of conservation and interpretation of fashion. Instead of constituting the memories of museum viewers these suggested new approaches may help them to interact, respond with, and remember fashion on their terms.

9.4 Surveying 'Designer Intent' toolkit

The following section introduces the design of the toolkit intended to be utilised by collection care practitioners in documenting 'Designer Intent'. The structure and thematic areas of the toolkit, that relate directly to the outcomes of this research, are explained with a design of the toolkit as envisioned by the author to be used in a museum context. The themes, subthemes and associated questions in the toolkit were discussed with professionals in the field of fashion conservation and curation. This feedback raised discussions in areas of connecting to postmodern materials, supporting interpretation, crafting relationships, time and information and the potential benefits of the toolkit.

9.4.1 Introduction to toolkit

Following the analysis of the interviews (see Chapter 3) and object studies (see Chapters 5, 7 and 8), the author used the findings to draft a toolkit. One aim of the survey is to provide a context for asking questions, in the form of a toolkit, to tangibly capture ideas, thought processes and other intangible aspects of the designer's engagement with postmodern materials. A second aim is to encourage negotiations between conservators, curators and designers to share knowledge and encourage plural perspectives to co-exist (Beerkens et al. 2012: 125), to increase the resonance of fashion artefacts made from postmodern materials (see Section 1.3). This joint approach has been used by contemporary art conservators, curators and collection care professionals for some time using various types of platforms and documentations to develop relationships with artists and their work. For example, guidelines for interviews developed by *The Artist Documentation Programme* (ADP) (1990), *The International Network for the Conservation of Contemporary Art* (INNCA: 2002, 2016) and *Voices in Contemporary Art* (VoCA) (see Section 2.9). For this toolkit, dialogue is encouraged through structured themes and any documentation, audio, films or ephemera produced by the interviewer(s) and the designer(s) and their teams which could be transcribed, filed, archived and potentially stored on collections management systems and/or with the fashion artefact. In addition, supplementary files could be inserted as attachments into any Microsoft office application to produce the toolkit to remain compatible with collection

management systems and preventing possible separation from the original transcribed interview with the designer. Also, to enable the insertion of images of the artefact into the designated areas alongside each main theme and sub-section of questions. For this thesis, the toolkit is presented on a Power Point presentation. A page providing guidance on terminology is included as part of the of the toolkit. It is recommended that conservators, curators or other collection care professionals research the designer and their collections thoroughly before selecting, prioritising and adapting questions from the script. In this sense, the toolkit could act as a prompt when considering the specific aspects of each designer to be interviewed.

9.4.2 Structure of toolkit

Three main themes; Authenticity, Role of degradation and Design context were identified as values connected to the outcomes from analysis of the professional interviews and artefact examinations (see Section 3.5.6). These themes determined the structure of the toolkit, as well as the formation of the sub-sections in each area. Table 9 summarises the three main areas and subsections. Figures 68, 69 and 70 show the presentation of the tool kit.

Authenticity		
Designer intent	Material choices	Aesthetics
Role of degradation		
Condition	Evaluating change	Current and future interpretation
Design context		
Design team	Stakeholders	Advanced materials

Table 9. Summary of main themes and sub-themes for the toolkit.
Image: ©Leanne Tonkin. 2022.

A short survey of INNCA, VoCa and Beerkens et al. 2012 (see Section 9.4.1) was conducted by the author to review approaches taken when interviewing artists. This survey was a valuable starting point for the author to develop a sense of similarities and differences when asking questions to artists and designers. For example, similarities included the use of an opening question to talk about initial ideas about artworks and design objects, and rationale about material choices. Differences included types of material engagement, where questions may centre around conveyance and the public involving parameters to be determined by the artist and artwork,

whereas the role of the wearer, silhouette and construction of a design object would be the main considerations for designers.

A series of semi-structured questions were devised under the sub-sections of each theme (see Sections 9.4.2.1, 9.4.2.2 and 9.4.2.3) that relate to content and ensuing discussions in the fieldwork in Chapters 4-8. These elements helped categorise the questions for the toolkit. The structure of which may prompt interactions with the designer during a designer's interview as an exercise that is influenced by 'relational ontology' (Ihde and Malafouris 2019: 197)). This approach includes aspects of how materials are experienced to make sense of them (Ibid) making use of the toolkit a more subjective and engaging way to encourage dialogues in the recording of 'Designer Intent' by conservators, curators and other collection care professionals. Debo (2019), director and chief curator at MoMu, confirms these dialogues can be challenging to stage whilst working with designers in a museum context, 'making them *trust you.* (…) So that you can really come to a collaboration. (…) That's a very important quality, I think a curator [should] know how to communicate with designers. And I think it's something you unfortunately cannot learn in school. [Designers] have to trust you and *allow* you in their world'. Connecting directly with the design practice of the designer through targeted questions, perhaps asked in various locations, for example, the designers' studio, at a museum or during exhibition making, is a way to activate and include the conservator's participation with designers and their processes through fashion interpretive practice. The questions are intended to reach beyond purely technical documentation where conservators are 'involved in constructing the narrative that surrounds the conservation' (Marçel 2017: 102) of postmodern fashion as understood through postphenomenology and the MET.

9.4.2.1 Authenticity

The order of the themes follows the natural order in which they proved provident in the thematic analysis of the professional interviews (see Sections 3.5.5 and 3.5.6), authenticity was the first issue to arise from combined analysis of the conservators and more predominantly by the curators. The first consideration when acquiring postmodern fashion made from postmodern materials. This discovery was to be an underlying theme that is positioned around the complexities of working with designers and their teams to help trigger necessary decision-making to ensure fashion heritage remains relevant (Anderson 2000: 375). These questions in the toolkit are designed to try and help rationalise, connect and increase current and future contextualisation of the designer, their teams and fashion artefacts (Ibid: 388).

Definition of the sub-themes:

Designer Intent: the experience the designer intended to create for the artefact(s).

Material choices: reasons for selecting certain material(s) for the artefact(s) and their properties and qualities.

Aesthetics: ideas concerned with the stories, techniques and approaches to achieve the desired look(s) of the artefact(s).

9.4.2.2 Role of degradation

Degradation follows on from authenticity as an equally important consideration which seems to centre the decision-making when to acquiring, conserving and displaying (see Chapter 6). Susanna de Sá, conservation scientist, Universidade NOVA de Lisboa, Lisbon, Portugal reflects on her experiences as a research scientist working with long-term archival expectations of (post)modern materials in fashion artefacts in museums and archives.

> And most of the time [museum stakeholders] think things degrade at a very slow rate but they degrade in a few years. (…) in one hundred years if [the object] is completely [gone], what can we do? Because sometimes I think [designers] also feel that [the objects] are immortal so they will never die. That they will always be there to have. So, I always [ask the designer] in one hundred years when you won't be here, how can I make a decision? Who should I contact or who should I be talking to that knows your work really well?
>
> de Sá, Universidade NOVA de Lisboa. 2019

Definition of the sub-themes:

Condition: perceptions on current appearance, any degradation, loss, physical function and use of the artefact(s). Assessment of ideas on what to do with the artefact after its museum-life. For example, return to designer/team/custodian, arrange reproduction, replacement, reconstruction, disposal by the museum, recycled by the museum and/or designer, design team, custodian or used as a resource by the museum.

Evaluating change: assessing the impact of conservation work required to continue to interpret and archive the artefact(s).

Current and future interpretation: ideas on any supportive material considered important to the designer and their teams to interpret the artefact(s) or could an augmentation of the artefact(s) be suitable if elements do not function or perform as intended, for example, video, photograph.

9.4.2.3 Design context

Through the questions posed in the toolkit it is hoped to develop a better understanding of the relationship between degradation and fashion in a historical context. de Sá (2019) confirms the importance in classifying degradation in fashion archives to help determine the ontology of degradation and the artefact. Design context emerged an important theme because of the increasing desires by designers to collaborate with other specialists, like material engineers in 3DP (see Section 8.5), responses to wellbeing and community through speculative design, for example working with new materials, like electronic textiles (see Chapter 8) and design researchers who are utilising multimedia to engage with their practice (see Section 10.4.1). For conservators, aspects of materiality alone may not be stringent enough to conserve the intentions of contemporary designers using postmodern materials, such as electronic textiles, that are intended to embody multiple experiences involving different stakeholders as a way to dematerialise and decentralise the design system (van Dongen et al. 2019: 1; Townsend et al 2020a: 8).

Definition of the sub-themes:

Design team: ideas on the importance of co-workers, technologies (including portable) and collaborators to materialise the artefact(s).

Stakeholders: views on sharing the artefact(s) with others, including wearers, and the environment. For example, any importance related to the eco system, social action projects.

Advanced materials: perceptions on the benefits of using technology and advanced manufacturing methods to materialise the artefact(s). For example, coding, algorithms, 3D software, Selective Laser Sintering (SLS), Stereolithography (STL). This section could include ideas on how to archive design files, for example, CAD files, film, video, web-based platforms, portable technology, any other file and programmer versions, like source codes related to the creation of the artefact(s). Files can include physical formats like traditional patterns, drawn designs and photography.

Guidance is provided as part of the toolkit to help define some of the terminologies used in the questions and the above definitions (see Figure 71). All the themes are considered by the author to be equally relevant and in time, the toolkit may prove helpful in the development of archival strategies by documenting and identifying any differences and lesser-known aspects of the use of postmodern materials by designers. It may also encourage further communications between

conservators, curators, designers and others as an essential part of gathering and assessing ‘Designer Intent’.

Figures 68, 69 and 70. Toolkit showing the three main themes for recording ‘Designer Intent’: Authenticity, Role of degradation and Design context. Image: ©Leanne Tonkin. 2022.

Figure 71. Explanation of terms to accompany the toolkit format. Image: ©Leanne Tonkin. 2022.

Artefact

Object No.	Date of acquisition:	Object name/design date:
Name and of Position of interviewer:	Name of designer(s)/maker(s):	Material(s):

Select appropriate questions depending on type of material/artefact being documented:

Documentation	Questionnaire	Artefact
Authenticity	**Designer intent** 1.1 What is the inspiration for the design brief / artefact(s)? 1.2 Who do you imagine wearing it and where? 1.3 How would you like the design(s) to be remembered? 1.4 How should it be conserved to maintain its' current condition and appearance?	
	Material choices 2.1 Where are the material(s) sourced from? 2.2 What drew you to the material(s) that the artefact is made from? 2.3 Can you describe the different parts of the artefact(s) that were important to you when working on it? 2.4 How are the textile/material choices intended to affect the wearers' experience?	
	Aesthetics 3.1 What is the narrative underpinning the artefact(s)? 3.2 What are the significant approaches to the silhouette and construction techniques? 3.3 How much involvement do you have in the craft/making process? 3.4 Which aesthetic approaches are unique to you design style?	

Figure 68.

Artefact

Object No.	Date of acquisition:	Object name/design date:
Name and Position of interviewer:	Name of designer(s)/maker(s):	Material(s):
Select appropriate questions depending on type of material/artefact being documented:		

Documentation	Questionnaire	Artefact

Role of degradation

Condition

4.1 What is the condition of the artefact(s)?

4.2 How do you feel about the condition of the artefact(s)?

4.3 Does the artefact(s) require treatment/repair in your opinion?

4.4 If the museum considered the condition of the artefact(s) to be no longer suitable to public exhibition, ideally what would you like to do?

Evaluating change

5.1 How important is it for the artefact(s) to remain in the same condition as it was when received into the museum collection?

5.2 In the case of intervention would this alter the meaning of the artefact(s)?

5.3 How important is it to show the history of the artefact(s) through its condition?

5.4 If some elements of your artefact(s) deteriorate and some survive, how would you feel about the partial survival of these elements?

Current and future interpretation

6.1 What do you feel about your design being exhibited in a museum context?

6.2 What other supplementary information do you feel is important to be presented alongside the artefact(s) when exhibited?

6.3 How would you like the original artefact(s) to be remembered if it deteriorates?

6.4 Would replacements and reproductions of some elements of the artefact(s) be acceptable to you?

Figure 69.

Artefact

Object No.	Date of acquisition:	Object name/design date:
Name and of Position of interviewer:	Name of designer(s)/maker(s):	Material(s):
Select appropriate questions depending on type of material/artefact being documented:		

Documentation	Questionnaire	Artefact
Design context	**Design team** 7.1 Explain the roles of any co-designers and other participants involved in the design process. 7.2 Describe any responses from co-designers and other participants whilst testing of the artefact(s). 7.3 What kinds of technologies helped with the designing and manufacturing process? 7.4 How important is it to consider multisensorial aspects of the artefacts(s)?	
	Stakeholders 8.1 How would you like someone to experience your design(s) in a museum? 8.2 Are there any environmental considerations to be included as part of its care? 8.3 How important is it to consider any environmental influences? 8.4 How important is audience engagement with the artefact(s)?	
	Advanced materials 9.1 Explain the importance of incorporating advanced materials and technological components into your designs? 9.2 Why do you use advanced materials, techniques and manufacturing as part of your decisions? 9.3 Are there available designs or design files that could be kept in an archive?	

Figure 70.

Explanation of terms	
algorithms	series of instructions for a computer programme to accomplish a task.
coding	computer language used to develop apps, websites and software, sometimes called computer programming.
Computer Aided Design (CAD)	the use of computer-based software to aid in design processes.
portable technology	examples include - iPhone, iPad, iPod, MP3, smart watch, AppleTV, HomePod, iPod touch.
multisensorial	relating to or involving several physiological senses.
Selective Laser Sintering (SLS)	an additive manufacture (AM) technique that uses a laser as the powder source to sinter powdered material, aiming the laser automatically at points in space defined by a 3D model binding the material together to create a solid structure.
Stereolithography (STL)	a technique or process for creating three-dimensional objects, in which a computer controlled moving laser beam is used to build up the required structure, layer by layer, from a liquid polymer that hardens on contact with laser light.
three dimensional (3D) software	computer graphics software that enables the design development and production of 3D graphics and animations.

Figure 71.

9.4.3 A response from the professionals

The following professionals discussed the structure of the toolkit during a series of telephone conversations and online meetings between dates: Judith Edgar, curator of Lace, Costume and Textiles at Nottingham City Museums and Galleries; Glenn Petersen, conservator, The Costume Institute, The Metropolitan Museum of Art and Joanne Hackett, lecturer in textile conservation, University of Glasgow (former head of textile and fashion conservation, V&A). Overall, the respondents felt the toolkit could be beneficial in capturing aspects of designers and their design process whilst working with the, often changing, elements of postmodern fashion artefacts. Amendments were suggested to some of the questions for clarity and weighting, for example, initial questions from each sub-section should concentrate on the garment leading onto the contextual, conceptual aspects of the design. Some of the main considerations taken from the feedback are summarised below:

- Connecting to postmodern materials

  The toolkit could help to increase the importance and include postmodern materials and fashion artefacts as part of 'the post-cultural shift' (Tseëlon 2016: 220) in museum collecting. It could be an efficient way for collection care professionals who engage and document the designers' use of modern materials for longevity when considering the complexities, continual and increasing development of new materials.[38]

- Supporting interpretation

  Assessing the use of augmentation to display the designers' work in the form of video or photographs could be helpful for fashion conservators and curators who are working with digital fashion. If there are functional aspects to the garment that no longer perform there may be other forms of showing this to ensure 'Designer Intent' is honoured (see Section 8.2.3).

- Understanding condition

  Understanding of the designers' ideas about condition may help provide an insight into their perspective on the level of accepting age and damage or different views on wear and tear. This insight could help conservators and curators understand how subjective, or not, the designers' views are when considering the condition of a garment. Petersen explained, whilst working on the *Heavenly Bodies: Fashion and the Catholic Imagination* (May – Oct 2018) exhibition at The Costume Institute, The Metropolitan Museum of Art, some designers were happy to expose their ensembles to light levels that are not

[38] Tonkin, L., 2021. Conversation with Judith Edgar, curator of lace, costume and textiles collection Nottingham City Museums and Galleries, 23 June.

accepted in the display of textiles for museum exhibitions. This was because the designers saw the exposure to light to showcase their work was part of that particular history of the artefacts selected for that specific exhibition.[39] This is comparable to the Yohji Yamamoto retrospective at the V&A (2011) as discussed in Sections 2.8.7 and 6.3.2 where, again, high light levels were required by the designer and his team to showcase the ensembles and the consequence of damage was accepted to best display the garments.

- Crafting relationships

  Developing an awareness of the importance of the crafting process for designers could be beneficial in ascertaining the level of intervention/conservation to apply whilst treating artefacts for display. For example, if a piece is factory made, designers may not feel as close to the condition of the artefact, whereas a piece that is produced and influenced by the hand of the creator may illuminate different feelings/perspectives/attachments to the artefact. Establishing the differences between these material relationships between designer/creator/maker and object may become an important consideration when condition checking fashion artefacts for current and future treatments.[40] If the material authenticity resembles something different to that of the maker, for example, the original condition of the material has chemically changed or naturally degraded through bio processes, its' original authentic state at the point of production has changed and progressed to different types of authenticities (see Chapter 5 and Section 8.2) that often 'does not suit the tastes, needs and expectations' of designers, conservators and curators (Muños Viñas 2020: 22). Chapters 4 and 5 discusses authenticities of postmodern fashion artefacts as multiple material relationships in postmodern fashion and helps broaden the meaning and benefits of 'Designer Intent'. Hackett admits 'authenticity speaks to the design mind rather than the conservator mind'. This statement confirms the lack of established perspectives in fashion conservation in the understanding of material authenticities, material relationships and aesthetic experiences (see Chapter 5) through material change (including that of e-textiles and digital fashion (see Chapter 8)) as part of 'Designer Intent' in fashion interpretive practice of postmodern fashion history.

- Time and information

  Knowing the right time to gather information about 'Designer Intent' is an important aspect when considering using the toolkit as an exchange of information on the designer's

[39] Tonkin, L., 2021. Conversation with Glenn Petersen, conservator, The Costume Institute, The Metropolitan Museum of Art, New York, 23 June.
[40] Tonkin, L., 2021. Telephone conversation with Joanne Hackett, former head of textile and fashion conservation, V&A, currently lecturer in textile conservation, University of Glasgow, Glasgow, 22 June.

thoughts. Preference for obtaining this data could happen at the time of acquisition, rather than later as an attempt to record the designer's memory as close as possible to the production of the artefact. This is preferred by conservators because often desired contemporary fashion artefacts were produced sometime before the date of acquisition and will remain in the museum archive, after acquisition, until required for conservation and display.[41] The toolkit is intended to act as a 'co-documentation' between curators, conservators and other collection care professionals to help corroborate the designers' intentions and their desires to work with postmodern materials. This co-operative approach will help capture the right information at the point of acquisition, as suggested by the professional, to build on ideas around aspects of longevity and postmodern fashion heritage.

9.4.4 Confidentiality

The tool kit may include a clause which provides different versions of confidentiality agreements to show how the content of interviews and any other information shared will be held and potentially used in the future. For instance, if there are commercial or other imperatives that cause concern for the designer, then the confidentiality agreement will come into play and up to 10, 20 years or until the designer's death protection of sensitive information and commercial interests will happen. This may encourage trust building between conservators, curators and designers and could encourage designers to engage with the interview process for the purposes of the information being recorded and kept for current and future study.

9.4.5 Potential benefits of the toolkit

The toolkit is a tangible response in documenting 'Designer Intent' in the archiving of postmodern materials and fashion artefacts. It encourages conservators, curators and collection care staff to 'go beyond producing purely technical documentation' (Marçal 2017: 102) and be involved in a more interactive dialogue in the conserving and constructing of diverse postmodern material and fashion stories. Recording 'Designer Intent' as part of a 'responsive documentation system' (see Section 9.4.5) can contribute to a management framework for dress archives that embeds an element of uncertainty because of unexpected chemical material changes (see Section 6.4.1) and the permanent impermanence (see Sections 8.4 and 8.5) of advanced materials (see Section 9.4.2.3).

The toolkit enables the exploration of ideas of the designer and their teams making space for any uncertainty that may be considered when acquiring postmodern fashion artefacts helping to negotiate any ambiguities that do not comply to technical collection care standards (Henderson

[41] Tonkin, L., 2021. Telephone conversation with Joanne Hackett.

2018: 112). This may liberate the fashion conservator (and curator) from adhering to long-term, traditional goals often set by dress archives, which preference the interpretation of the social over the material (Kopytoff 1986: 64-91; Malafouris 2013: 12; see Section 6.3.3), as maintaining historical knowledge. As previously discussed, Samson, curator at Palais Galliera, is reluctant to collect fashion artefacts made with polyurethane because of the potential to degrade quickly (see Section 4.2.1). Postmodern material experiences of the conservator reveal different material authenticities to that of the original fashion artefact as remembered by the designer, and therefore the toolkit may become intrinsic in recording information for long-term fashion cultural use(s) and users. This approach could substantiate the specialist skills of the conservator whilst appreciating the experiences of the designer and their teams. It may extend the significance of modern materials, potential degradation and loss by reducing barriers of apprehension in applying a 'continuity through change' (Hölling 2015: 88) approach. By documenting 'Designer Intent' through the experiences of designers, fashion conservators and curators may reappreciate how fashion cultural users value their material engagement, experiences and emotions that can happen when engaging with contemporary fashion exhibitions. The outcomes of using the toolkit could enable conservators and curators to work with postmodern fashion artefacts that are intrinsically ephemeral.

Chapter 10.0 Conclusions

10.1 Introduction

This concluding chapter begins by reviewing and reassessing some of the approaches undertaken by specialists in the field of conservation and design and how this research is supported and challenges those approaches by filling in gaps in knowledge. One of the main discoveries was the significant deficit in 'Designer Intent' being used in the conservation of postmodern fashion history, and the important contribution this could make to the field. This raised awareness to affirm the benefits of understanding and recording 'Designer Intent' as a new methodology. Section 10.3 provides a 'Summary of main findings' by discussing all the contributions to new knowledge, beginning with a discussion and summary of the new ideas that have emerged from the research: 'Designer Intent' and authenticity, followed by the benefits of 'Postconservation documentation' which links to conserving the 'Postdegradation of postmodern fashion' and describes the new approaches suggested by this research. 'Recommendations of future work' in Section 10.4 explains how the work can be extended and further developed with aspects that have arisen beyond the scope of this thesis. The last section of the conclusion summaries 'Contributions to new knowledge' listing the individual contributions made from completing this research and 'Research dissemination' which lists the publications, conference presentations and specialist events that have derived directly from this research. Including interviews with the Scientist Magazine, USA, a professional online magazine intended for life scientists.

10.2 General conclusions

Analysing the meaning and value of 'Designer Intent' when conserving postmodern fashion collections is core to the research. Examining designers who work with postmodern materials (see Section 1.3) broadens an awareness of the potential impact and benefits of conserving 'Designer Intent'. When considering the contribution to new knowledge of this work the author revisited some of the key literature used in this thesis which are published by theorists and practitioners in the conservation field and beyond. For example, Morris and Keneghan's (2011: 111-117) approach to 'Designer Intent' and authenticity is through practice-led conservation involving reconstructing and replicating original 'looks' of artefacts that had been damaged over time. For example, the conservation of a Paco Rabanne Disk Dress c. 1967 (see Section 2.9.5). Muñoz Viñas (2020: 17-30) describes this approach as being 'preferable' to showing artefacts that show signs of aging, deterioration and breakages as an authentic form of interpretation. The 'preferable' approach relies on technicalities in anchoring an artefact's authenticity, largely based on the choices and interpretations of the conservators and other collection care professionals. Muñoz Viñas also considers the personal choices of viewers as being authentic and providing usefulness to the notion of artist intent (see Section 3.3.2). This perspective considers the non-material circumstances of the artwork as being more valuable than the long-term conservation of the

physical artefact. Meaning the viewer and the original 'look' of artwork can be exchanged and exist in many ways. For example, through multiple publications and social media platforms. Muñoz Viñas concludes by disregarding the artist intent because it prevents multiple engagements by the viewers (see Section 6.2.1). However, this study challenges Muñoz Viñas position, by recommending the conservation of 'Designer Intent', as a 'postconservation' protocol, that values the documentation and conservation of the performative, renewable and wearable concepts of postmodern materials and fashion artefacts to effectively increase and widen opportunities for audience's material engagement (Tonkin et al. 2022; Tonkin el al 2023). This, in turn, allows characteristics of changeability and impermanence (see Chapters 4 and 5) to establish material relationships and aesthetic experiences with new audiences as part of a Material Conservation Theory (MCT) (see Sections 2.11, 4.6 and 5.4.3) to include museum viewers by preventing fixed illusions of the material choices made by designers. This thesis establishes 'Designer Intent' as a key contribution in acknowledging, communicating and documenting the intention of the fashion designer in their use of postmodern materials to create fashion artefacts, as an integral part of fashion history. Documenting 'Designer Intent' as part of museum practice also acknowledges the existence of new and emergent materials that require different conservation considerations, compared to traditional archival practices and perceptions relating to maintaining the physical condition and longevity of artefacts for as long as possible.

Chapters 4 to 8 discuss, analyse and exemplify how postmodern materials and fashion artefacts present challenges to dress archives because of the traditional perceptions of stability and, therefore, long-term survival of fashion artefacts to maintain historical value. Thus, encouraging the significant and potential loss of postmodern and postgrowth fashion history that support other forms fashion narratives. For example, these artefacts can be associated with different types of stabilities, unfixed material properties and qualities that are symbolic to their meanings and values (see Chapter 6 and 7). Consequently, they are often not collected because they are considered unstable, with short-term existences. This scenario presents challenges when acknowledging the history of postmodern and postgrowth fashion as designers continue to employ, radicalise and engineer new materials that employ different production methods. Glenn (2015: 239-244) exemplifies the consequences of fixed illusions of stability when working with designer Yohji Yamamoto where the process of degradation was perceived as undesirable for public consumption. Resulting in the removal of an artefact from display to prevent 'loss and misinterpretation' of the designer's work. Thus, preventing different aspects of interpreting the characteristics of postmodern materials. In contrast, Susana F. de Sá et al. (2014: 193-203) recognises the process of degradation in some modern materials become part of the transient authenticities of high fashion artefacts. Therefore, reaffirming this phenomenon requires further investigation in understanding the values of conserving postmodern fashion history. This

approach supports this research which offers ways to reconsider degradation as aspects of 'Designer Intent' and authenticities of postmodern materials (see Chapter 4). Where transient properties and qualities of postmodern materials remain interpretable, valued and meaningful elements for the user(s) of museums.

This work values degradation as documentary evidence for determining the role of the postmodern fashion artefact (see Chapters 5, 7 and 8). DeSilvey's (2017a: 177-188) proactive approach to degradation invites interpretation as an active mode of material engagement in contrast to Glenn's, Morris' and Keneghan's approach which restricts it. Ingold's (2007: 427–442) views on the 'processual and relational' qualities of materials which cannot be fixed (Ibid: 438) by conservators and curators links to properties and qualities of postmodern materials as identifies in this thesis (see Section 1.3). This coincides with DeSilvey's views on recognising the wider possibilities and opportunities for other stakeholders to evaluate the meaning of material change, reinforcing the characteristics of postmodern materials and fashion artefacts as part of a 'postconservation' era (see Chapters 5, 7 and 8). This research introduces a 'postconservation' methodological approach that includes degradation as an essential element of conserving and interpreting postmodern (and postgrowth) materials and fashion artefacts in archives. Thus, introducing the term 'postdegradation' to conservation literature and practice which considers material changes from a positive rather than a wholly negative perspective, in response to the evolving state of fashion history.

Conserving 'Designer Intent' as part of a postconservation methodology, as developed by this research, departs from work by pervious theorists in textile conservation. For example, Eastop's (2000: 17-28) adaptation of Kopytoff's (1986) cultural biography model to analyse artefacts, places emphasis on the historical social values, i. e. evidence of wear and use, and material properties as elements to inform conservation and interpretation of textile artefacts (see Section 2.9.2). In contrast and in favour of this research, Malafouris (2013) and his use of the MET challenges this social biographical approach in understanding material agency of objects, he uses a phenomenology and scientific cognition lens. His acknowledgment of fluid interactions and relational transactions between stakeholders and the artefact (see Section 2.10.2) as integral assets in engaging and understanding objects (see Section 3.7) aligns more with the holistic approach taken by the author through object studies (Chapters 5, 7 and 8). These studies in Chapters 5, 7 and 8 show how to observe and note different ways to document and archive the artefact beyond the technical observation of the conservator and curator to account for other stakeholders, uses and environments. Whilst Malafouris acknowledges 'relational ontology' in which people and things are inseparably linked (Ihde and Malafouris 2018: 197) (see Section 9.2.1), van Dongen et al. (2019) refer to the body and the act of wearing through a fashion lens

using postphenomenology (Ihde 1995) to examine the role of technology to recognise wearer responses and experiences as mediating technology and fashion (van Dongen et al. 2019: 3). This approach supports the contribution to new knowledge of this work in conserving 'Designer Intent', again supported by the object studies (see Chapter 8), allowing for the documentation and conservation of prototypical design, E-textiles and digital fashion as evidence of a digital fashion wearing community connecting with and experiencing the environment (see Section 8.4.1).

In answering the research question to this thesis: How can 'Designer Intent' be understood, captured and conserved alongside an archived fashion artefact? The author has demonstrated that 'Designer Intent' is multidimensional and interacting (see Chapters 4 to 8) and engages with the mediations between human and non-human entities (see Sections 5.2.1, 6.3.1 and 7.6) with postmodern materials and fashion artefacts that have no fixed properties and qualities. They are an emergent product from material engagement. Hölling's (2017b: 87–96) work in conservation theory and practice recognises the quality of time in archives brings different values as newer thinking emerges in conservation and curatorial practice that documents accumulative changes, modifications and interpretations (Ibid: 93). However, Calefato (2019: 31-45) considers the fashion museum as a living archive that provides cultural translation between the conservators, curators, the visitors and fashion artefacts. This links to the 'continual identity' model (see Sections 5.4.3 and 6.4.1 and 9.3) developed by the author so other stakeholders are considered as part of the archive and documentation of 'Designer Intent'. This work introduces this model as a 'postconservation' (see Chapter 4 and Sections 6.4, 6.5 and 9.2) and 'postdegradation' (see Section 8.5.2) approach that encourages inter-cultural relationships with postmodern materials and fashion artefacts, including the care of E-textiles and digital fashion (see Chapter 8). This new approach is particularly relevant due to the increasing use of (sustainable) biomaterials within fashion (see Chapters 6 and 7) that are expected and are intended to degrade. These aspects require continual interaction between collections care, current and future users of fashion artefacts which address the subsidiary research question: What kind of information is required to conserve 'Designer Intent' once the materiality of the object no longer exists, whereby 'material longevity' may not be intended? Hendersons' (2020: 195-212) approach to longevity in conservation practice is to consider the life-experiences of the users, viewers and communities as an indicator of value placed on objects, whereas Townsend et al. (2020c: 93) work with 'Designer Intent' by identifying the archive and artefacts as a source of informing contemporary craft practice as a form of 'distributed cognition and memory' (see Section 6.5.1) conserving material longevity through practice-based research. Both these approaches support the new contributions to knowledge this work makes to the conservation field by identifying material relationships and aesthetic experiences as shared values in conserving 'Designer Intent' for postmodern fashion

with short-life spans (see Chapters 4 and 5). This supports the aforementioned 'postdegradation' effects as contribution to a new criteria of fashion interpretive practice that records these stages of material engagement.

This research recommends a 'responsive documentation system' (see Sections 4.5.2, 7.3.3 and 7.4.3) and toolkit (see Section 9.4) as a new practical outcome that records the effects of 'continual identity' to increase and sustain relevance of archives as time progresses, becoming a primary source of data in conveying and distinguishing the dilemmas, stories and engagements of postmodern materials and fashion artefacts in museums. Thus, showing different approaches in how to connect to cultural consumption to help museums to become part of a people-orientated social context helping fashion museum staff to deliver the museums' mission. As this thesis suggests, this type of new documentation will acknowledge undercurrent strengths, emotions and pressures that are prevenient amongst fashion interpretive practitioners attempting to care for postmodern fashion history. To what is otherwise an unresolved, critical challenge in caring for contemporary dress archives.

10.3 Summary of main findings

This work has developed and characterised 'Designer Intent' as a postconservation methodology which introduces new approaches to conserving 21st century postmodern and postgrowth fashion history. It serves as a conservation documentation system that captures the legacies of postmodern and postgrowth designers and the materials in which they engage. This system uses ontological approaches to object-based analysis creating new forms of recording fashion artefacts that inform postmodern fashion conservation practice which, in turn, captures 'Designer Intent'. By doing this, conservation documentation includes diverse emotional engagements with fashion artefacts as consideration in the acquiring, collecting and exhibiting contemporary fashion artefacts. As a result, the collection care of contemporary fashion accepts the existence of 'cognitive artefacts' are an outcome of material engagement between the artefact and the user(s), thus acknowledging and incorporating diverse stakeholders as contributors to fashion history.

10.3.1 'Designer Intent' and authenticity

This work has given definition to 'Designer Intent' as a methodology of conserving authenticity of postmodern materials and fashion (see Chapters 4 and 5). By utilising the MET this research has develop new ideas of recording and engaging with temporal, transient and transferable aspects of postmodern materials as evidenced through the object studies. An outcome of this research shows how authenticity of postmodern fashion history emerges through the material trajectories of postmodern materials. This contribution to new knowledge prevents a disembodied response by collection care professionals who may decide to separate and/or not display fashion artefacts

due to material change and/or degradation because of singular perceptions of stability and neutrality in contemporary fashion artefacts. Short durational elements of postmodern materials as they change can be considered part of 'Designer Intent' as distributed material processes introducing material relationships and aesthetic experiences as part of the design moment, not necessarily committed to a perceived original moment of the design.

10.3.2 'Postconservation' documentation

Chapters 6 and 7 introduce how postmodern materials and postfashion systems challenge the dress archive. The research shows the retrospective approach to conservation practice fails to support some postmodern materials where degradation, part of 'Designer Intent', is an integral characteristic and, through design practice, is connected to the sources from which they derive. Object studies like the Wild Rubber Dress by Westwood and Kronthaler, the 'ECCO'-Leather Dress by van Herpen and the Rootbound Dress #2 by Scherer, all shown in Chapter 7, utilise postphenomenology to show how biodegradable, eco and naturally sourced materials platform postgrowth fashion artefacts, including Haute Couture, and are products of human mediation and the environment (van Dongel et al. 2019: 2) exploiting technology of natural forms to support ecology (and geology). The toolkit produced by this work contributes to the recording of such characteristics of postmodern and postgrowth fashion by acknowledging the documentation process as a proactive part of conservation practice, performed by the conservator, curator and/or collection care professional with the designer(s) and their teams, which is not limited to the physical acquisition and after care of artefacts. This output can record elements of renewability, fragility and (re)growth which can report the potential of different material relationships and stories to serve diverse users if displayed. In addition, it progresses ideas and current museum collection policies which are beginning to acknowledge the value of postgrowth fashion, for example the Non-Collection Object (NCOL) solution at the Victoria and Albert Museum (V&A), which evidences an element of 'epistemological uncertainty' (see Section 6.5.1) in fashion interpretive practice responsible for increasing benefits of dress archives and its uses and users. This is considered by the author to be a significant rise in responding to the environmental value systems that support ecosystem derived materials.

10.3.3 'Postdegradation' of postmodern fashion

Chapters 4 to 8 show new approaches when considering the ageing characteristics of postmodern materials through the documentation of 'Designer Intent'. An outcome from these approaches is the introduction of 'postdegradation' of fashion interpretive practice which recognises that conserving postmodern materials and fashion presents other ways to perceive authenticity, material change and loss as products. Chapter 8 utilises 'Designer Intent', authenticity and material change in the context of hybrid materials to show how E-textiles, 3D printed materials

and garments that engage with UX ontologically, like biodegradable materials, 'archivally act' and present different uses to dress archives. Through object-based analysis, this research shows different experimental approaches by designers result in artefacts gaining different types of temporal existences and functionality, as evidenced in Chapter 8 by the Solar Panelled Coat by Watanabe, E-textiles design prototypes by Nottingham Trent University (NTU) and 3D Printed Suit by Lagerfeld for Chanel, which often link to the environment or have elements that are modular and can be replaced (or not). An additional contribution from this research is recognising elements of hardware, software and data that are associated with the digital fashion artefact as part of the postdegradation process (see Section 8.5.2). Meaning conservation documentation is not limited to representing traditional forms of degradation, for example, oxidation, brittleness and discolouration of textile fibres. But records the conservation of diverse digital files that are integral to the design of the artefact, which considers their ephemerality and recoverability if lost, and adaptability and digital nexus as conservation practice.

10.4 Recommendations for further work

Utilising 'Designer Intent' as a postconservation methodology for conserving postmodern materials and fashion artefacts would benefit from incorporating participatory practice to test the usefulness of the methodology. Extending the research in this way may uncover hidden relationships, untold stories, between collection care staff, museum users and others through material engagement with postmodern fashion artefacts. The author would recommend developing workshops that will enable museum users and others direct access to postmodern fashion artefacts that are likely to degrade or show signs of degradation.

Stimulating discussions that are centred around the participants response to fashion artefacts and associated designers could be beneficial when discovering different types of fashion and material engagement with archives. For example, a conservator could initiate responses, through sharing the act of artefact examination, of the potential of losing the 3D Printed Polyamide Overlay Suit by Karl Lagerfeld, House of Chanel, c.2015-16 (see Section 8.5) because of the technique used to make the suit. Sharing a conservators' observations with participants on the likelihood of degradation of a recent Haute Couture piece, because of the 3D Printed technology selected by Lagerfeld, may prompt responses from participants on their own experiences with design technology. Their thoughts on degradation and potential (dis)approval could be recorded to help extend legacies of postmodern material stories in a more dynamic, people-centred way that becomes part of the collection management system (CMS). Assessing the impacts of the potential loss of postmodern fashion in this way may create a more holistic approach in learning about the potential well-being of contemporary Haute Couture and Avant Garde fashion as a way of safeguarding it.

The proposed toolkit (see Section 9.4) could be tested as a collaborative project with fashion museums and dress archives to assess the effectiveness of the questions. Collection care staff could use the toolkit when acquiring postmodern fashion to be considered the closest point to the creation of the artefact. Trials of the toolkit could be undertaken using the Collection Management System (CMS) in museum conservation, curatorial and collection care departments to learn how the data may be used, exchanged and transferred beyond the physicality of the fashion artefact. This approach leads the proposal of the development of digital fashion archives to conserve and (re)interpret the digital craft skills of designers and their teams and communities, which is beyond the scope of this research. Developing digital skills in conserving and archiving different types of hardware, software and data associated with digital fashion artefacts will become necessary for the care of E-textiles and digital fashion heritage. This calls for the development and exchange of digital craft methodologies between conservators, curators and designers to collect and conserve the archival data that is integral to the artefact.

Fashion conservators, curators and collection care professionals will benefit by co-creating with fashion visitors and other fashion communities. This will lead to mutual benefits and shared goals between the fashion museum, its staff and wider fashion communities, and others, providing a space for fashion engagement and dialogue. Such dialogue will also include others who have no desire to learn about fashion. Empowering community members to tell fashion stories that are meaningful to them could be engaged in every step of exhibition development to conserve and interpret postmodern materials and fashion artefacts, despite their short or long-term life expectances. This inclusion of other uses and users will diversify fashion communities, ones that produce results beyond the confines of an archive, reaching a collectedness and equanimity that will see more reason to conserve it because it strengthens and rewards a sense of identity and belonging.

10.5 Contributions to new knowledge

- This research provides new insights into the importance of ‘Designer Intent’ and material authenticity, these are integral elements when conserving postmodern materials and fashion artefacts. Conserving these elements will distribute and diversify the cultural significance of postmodern and postgrowth fashion artefacts.

- Introduction of a ‘postconservation’ approach that will include and support the conservation of post(growth)modern fashion that are intended to or will degrade. This approach will include a ‘continual identity’ model, as part of a suggested Material Conservation Theory (MCT) widening fashion engagement with fashion archives and exhibitions.

- The ‘postdegradation’ of ‘postmodern materials’ and fashion artefacts will acknowledge the conservation of (un)intended degradation, E-textiles and digital fashion, including prototypical design. This documentation will include digital archives to support the archiving and transition of hardware, software and data associated with fashion artefacts. By describing this alternative approach, a framework is provided that can form the basis for further research.

- Introduction of a toolkit as a co-document will record ‘Designer Intent’, role of degradation and design context as a part of a ‘responsive documentation system’ to conserve ‘postmodern materials’ and fashion artefact stories. This co-documentation will provide agency to postmodern fashion artefacts and their transient conditions to its end-of-life.

- An introduction of a Material Engagement Theory and postphenomenlogical based epistemology in the study and conservation of fashion objects.

10.5.1 Research dissemination

Some of the outcomes of this research, on aspects of ‘Designer Intent’, authenticity and (un)intended degradation of postmodern fashion, have been presented at two international conferences, one with the Design History Society (DHS) in Basel Switzerland (2-4 September 2021) and the Responsible Fashion Series, University of Antwerp, Belgium (14-15 October 2021). The DHS conference set out to re-examine relationships between design and memory and the desire to archive everything as a metaphor for how design histories are shaped. The Responsible Fashion Series encouraged debates around the societal role of fashion as a contributor to a more sustainable world. The author intends to continue to publish outcomes from the research, including the toolkit, as a new approach to fashion artefacts to gain feedback from professionals in the field of conservation and curation.

Publications

- Tonkin, L., 2023. *Book review: Living matter: the preservation of biological materials in contemporary art* [online]. News in Conservation, International Institute for Conservation of Historical and Artistic Works, (93). Los Angeles: Getty Conservation Institute, pp. 46-48. Available at: https://www.iiconservation.org/content/news-conservation-issue-93-december-january-2023 [Accessed 7 January 2023].

- Tonkin, L., Townsend, K., Kaner, J., and Downes, D. 2022. Pre-empting loss through 'fashion memory': a 'postconservation' perspective. In: Ernst, M and Gaspar, M., eds., 2021. *Memory Full? Reimagining the relations between Design and History. Digital Proceedings of the 2021 DHS annual conference*, FHNW Academy of Art and Design, Basel, Switzerland, September 2-4.

Forthcoming 2023 (see Appendix 7).

- Tonkin, L., 2022. Conserving electronic textiles and digital fashion. In: Frost, P., ed., *TEXT*, The Textile Society. Dorchester: Dorset press. Forthcoming 2023.

- Tonkin, L., Townsend, K., Kaner, J., and Downes, D. 2023. Designer Intent: a postconservation approach to postmodern fashion. In: King, I. W., Schramme, A., and Verboven, N., eds., *Can Fashion Save the World*? Oxfordshire: Routledge.

Forthcoming 2023 (see Appendix 8).

The author has presented elements of this research to conservation and cultural heritage students and staff at the University of Lincoln on conserving modern materials in fashion collections. She has also given talks and seminars at Nottingham Trent University to the Fashion, Textile and Knitwear students and staff on the relevance of the research in relation to reflective practice and material authenticities in theory and practice.

Lectures, seminars and teaching modules

- **Nottingham Trent University**
  March 2018, 21-23
  Smart textiles
  2nd year BA Fashion, Textiles and Knitwear

December 2021 – March 2022

Material Stories and Emerging Technologies

2nd year BA Fashion, Textiles and Knitwear

December 2nd 2021

Reflective Practice

MA Fashion, Textiles and Knitwear

October 2022 - February 2023

Reflective writing

Festival of Ideas event

MA Culture and Collaboration

October 2022 – February 2023

Resolutions: Culture and Context (dissertation module)

3rd year BA Fashion, Textiles and Knitwear

- **University of Lincoln**

  November 17th 2021

  Guest lecture 'Modern Materials and Fashion Collections in Museums'

  BA and MA Conservation of Cultural Heritage

  MA Cultural Heritage Management

  PhD conservation and cultural heritage

  Academic staff

- **Uppsala University, Sweden**

  August 15th 2022

  Webinar talk 'The Paradox of Plastic'

  August 15th 2022

  The Human Practices Subgroup

  Uppsala iGEM 2022 Team

The author was interviewed by The Scientist Magazine (online), a professional magazine intended for life scientists, USA, to discuss the dilemmas of conserving plastics in fashion heritage collections (July 2021) for an online article 'When Plastics are Precious'. https://www.science.org/content/article/museums-are-race-against-time-keep-plastic-art-falling-apart

The researcher was asked to chair the international triennial conference *New perspectives: contemporary conservation thinking and practice,* June 12-14th 2019, Belfast, hosted by The Institute of Conservation (Icon), UK. The conference included international papers addressing issues of conserving modern materials and multimedia artefacts. It also devoted time to the lack of inclusion and diversity in the field of conservation, and therefore perspectives on how and why cultural heritage can be conserved. The author presented a plenary talk which was a personal trajectory of her experiences in the field of textile conservation, entitled *Forging ways forward through the fear factor*. The aim of the paper was to highlight the challenges for different socio-economic groups to gain a career in the conservation field, and therefore contributing to the lack of perspectives and relevance in cultural heritage (see Appendix 9 for transcript of talk).

This work has contributed to the author's specialist work as an expert advisor in creating a toolkit to aid collection care specialists in identifying, caring and conserving synthetic textiles for dress archives. This is a collaborative project between the Plastics Subject Specialist Network (PSSN) and the Dress and Textiles Specialists (DATS), UK, funded by the Art Fund Network Grant (2020 – July 2022). The author was invited by the grant holder, Professor Susan Lambert, chief curator, Museum of Design in Plastics (MoDiP), Arts University Bournemouth, as an expert in synthetic materials.
https://aub.ac.uk/latest/aub-experts-awarded-funding-to-protect-synthetic-garments-in-uk-museum-collections

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Appendices

Appendix 1

List of pre-set, semi-structured questions for online consultations to examine object studies undertaken with Mode Museum, Antwerp and Westminster Menswear Archives, London

Date, designer/maker and credit lines for photo reproductions were confirmed before assessment.

Acquisition:

- Why was the piece acquired?
- Has the artefact been on loan of displayed since the artefact was acquired?

Brief description:

- Can you describe the artefact and its main features?

Construction:

- Can you show me how the general construction of the artefact works?

Overall condition:

- Can you show me and describe the overall condition of the artefact?
- Can you show me and describe any specific areas of deterioration? I. e. discolouration, evidence of chemical reactions, brittleness.
- What is the designer's opinion on the current condition of the artefact?
- What do the materials feel like?

Display:

- What is the display history of the artefact?
- Are there any plans to display the piece?
- What will happen to the artefact if it cannot be displayed?

Care:

- How is the piece stored?

Request for photographs were emailed on the same day of the examination.

- Overall front and back views
- Detailed areas of interest
- Detail of deterioration

Appendix 2

Research instrument submitted for ethical clearance for interviews

Leanne Tonkin, primary researcher and interviewer

Main research question
How can Designer Intent be conserved as well as the designed fashion artefact?

Interview aim
Assess ways of documenting the Designer Intent to help preserve the authenticity of their ideas in relation to their use of new materials and technologies.

Method
Conduct three sets of comparative interviews. One set with designers who actively engage with new materials like new polymeric and biodegradable materials, one set with textile conservators who work with contemporary materials in fashion collections and one set with curators who acquire, exhibit and research contemporary fashion collections. This approach will help better understanding similarities and differences between these roles, when considering the conservation of new materials and technologies found in contemporary fashion artefacts. This triangulation of perspectives will help merge the roles of conservators and curators to help recognise and better understand the impact of documenting the designer intent and how this concept will help in conserving new materials and technologies in fashions. The merger of all three perspectives will help reveal new theoretical grounding in conserving the materiality of contemporary fashions.

Rationale
The term Designer Intent, in the context of this research, refers to the experience the designer intends to create. As new materials (e.g., e-textiles) emerge, conserving the intentions of designers responsible for these ideas will help inform future conservators and curators of fashion and textiles. How will textile conservators recognise which element of the designed artefact should be documented and conserved? Similar to capturing an artists' intent, especially those who work with new materials (Jadzinska 2016), analysing the meaning and values of a designer is useful to determine elements that are specific or crucial within a given design artefact, for example, the concept, the role of the material, sensory elements, interrelations and the role of the wearer.

Objectives for conducting interviews with designers

- Collect relevant data about designers in relation to their ideas, subjective awareness and experiential understanding towards their designed artefacts.

- Capturing what experience designers want to create in relation to contemporary fashion made using new materials and smart textile systems.

Development of qualitative questions for interviews with designers
The questions will follow a critical hermeneutical and phenomenological system using qualitative questions (Kvale 1996: 11) to help probe their consciousness, experiential understanding of the physicality of materials relating to their creative practice. This format for interviewing could help record intangible elements from the designers that, otherwise, do not get reported.

Qualitative research interviews with five fashion designers working with new materials and technologies will be undertaken. Questions will relate to capturing their feelings,

visual thinking and levels of satisfaction. This data will be compared to their work as in the form of final artefacts to assess the relevance of the designer's view on documenting and conserving the artefact. Photographs will be taken during the interview to support points emphasised during the interview (if permitted) and artefacts to help analysis which could relate to colour, form and texture that, otherwise, cannot be recorded through oral communication.

Objective for conducting interviews with textile conservators

- Collect relevant data about textile conservators in relation to their experiences of conserving fashion and textile objects made from innovative/non-traditional materials including smart textile systems.

- Record the perspective of textile conservators treating contemporary fashion made using new materials and smart textile systems to help analyse the conservation of new materials and wearable artefacts, whereby material longevity may not be intended.

Development of qualitative questions for interviews with textile conservators
The questions will follow a critical hermeneutical and phenomenological system using qualitative questions to help gain an insight into the considerations and decision-making textile conservators make during the process of conserving unfamiliar materials.

Qualitative research interviews with five textile conservators who have experience of working with fashion and textile objects made from innovative/non-traditional materials, including smart textile systems, will be undertaken. This data will be compared to relevant artefacts in heritage collections to help support experiences of the conservator in assessing and conserving new materials. Photographs will be taken during the interview (if permitted) if artefacts are used during discussion to help illustrate the discussion.

Objective for conducting interviews with curators

- Collect relevant data about curators in relation to their experiences of acquiring, collecting and interpreting contemporary fashion objects made from innovative/non-traditional materials including new technologies.

- Record the perspective of curators interpreting and narrating contemporary fashion in museums which are made using new materials and technologies. This will help analyse the curation of new materials and wearable artefacts, whereby the properties of the material are relatively unknown.

Development of qualitative questions for interviews with curators
The questions will follow a critical hermeneutical and phenomenological system using qualitative questions. This will help gain an insight into the considerations and decision-making curators make during the process of acquiring and developing contemporary fashion collections whereby artefacts are made from new and unfamiliar materials.

Qualitative research interviews with several curators who working with contemporary fashion objects made from innovative/non-traditional materials, including new technologies, will be undertaken. This data will be analysed alongside interviews with textile conservators and fashion designers and help build a common ground between the three perspectives. It is hoped emerging themes will help underpin concepts regarding the definition of designer intent and new theoretical insights in material conservation.

Capturing data
Interviews will be recorded and transcribed and analysed thematically using NVivo, a qualitative data analysis tool for text-based media and through my own epistemological experience as a textile conservator specialising in modern and contemporary materials and fashion. Open-ended questions will be used to enable cognitive and emotional responses (Kvale 1996) for hermeneutical and phenomenological analysis. Questions are thematically bunched together to help gain specific aspects of their creative practice.

Objectives

- 5 designers, the same number of textile conservators and fashion curators will be interviewed to accrue analytical data for in depth analysis.
- Interviews will take place in-person or through skype/facetime/telephone conversation.
- Three interview guides will be used, one for designers, one for textile conservators, and one for curators to generate data for comparative and analytical purposes.
- References to designers' work to help illustrate their use of new materials will be used during the interview to help stimulate responses.

Question guide for interviews with textile conservators
There are five main areas to address in the questions in relation to responding to the main research question and aim in understanding the process of conserving contemporary designs by contemporary designers (both living and deceased). The areas are future interpretation, uncertainness, identifying challenges, documentation and treating.

Future interpretation

1. How important is the interpretation of a design when conserving and exhibiting a unique piece?

2. What are the main points you would consider when conserving designs made with new materials, for example, new plastics, biodegradable materials and new technologies?

3. What helps you in the decision-making process to conserve the interpretation of a contemporary designed artefact made from new materials?

Uncertainness

4. What makes you feel vulnerable when treating an unfamiliar material and/or an artefact that is intended to be dressed on a body?

5. What aspects do you consider when assessing the condition of new and unfamiliar materials/wearable artefact?

6. How do you work through the unpredictable nature of a material/wearable artefact that is required for dressing/display/exhibition?

Identifying challenges

7. When preparing a contemporary design artefact for exhibition, loan, storage, is it the newness of the material that is important to conserve, for example, the characteristics, the performance, the gimmick of the material, or is it the overall aesthetic of a designed artefact, for example, the drape, the surface, the overall silhouette?

8. What other influences impact the conservation of contemporary designs and how do they impact your decision-making when thinking about future conservation?

9. Have you encountered challenges during exhibitions when working with new materials and wearable artefacts?

Documentation

10. What documentation/procedure do you undertake when conserving and mounting a new and unfamiliar material like an electronic textile?

11. How would you document a material, like a biodegradable material, where the material is meant to degrade over time?

12. When documenting and condition checking new and emerging materials, what would be the considerations for future care and exhibition expectations?

Treating

13. What are the main points you would consider when treating designs made with new materials, like electronic textiles?

14. When treating an unfamiliar material like an electronic textile, what procedure would you undertake to stabilise the artefact for storage, loan and/or exhibition?

15. When working on displaying a contemporary designed artefact when do you know it looks right during the completion of the conservation work?

Question guide for interviews with curators of contemporary fashion

Acquisition process/Justification (short-term life span of artefacts)

1. Do you ever think about the longevity of a contemporary fashion piece whilst you are acquiring it?

2. What are your expectations for future display and loans of contemporary fashion artefacts?

3. Can you describe an occasion where you were not able to acquire a contemporary fashion piece? For example, due to issues of condition or being unfamiliar with any aspects of the design?

4. What justification may you provide when acquiring a contemporary designer piece that has a high risk of being disposed in the near future?

Collections Development (fashions made using new materials and technologies)

5. What appeals to you when you look for new contemporary fashion acquisitions? Is it the designer link to the piece or the aesthetic elements/aspects of the artefact?

6. Can you describe an example of a contemporary fashion artefact/s that you have collected because of its novel materials? For example, digital designs, 3D printed, electronic textiles with lights.

7. When collecting artefacts made from new or biodegradable materials that are known to degrade at different rates. How far will you allow the disintegration to go, in terms of maintaining curatorial/biographical value? What happens in 10 years-

time? Will you continue to collect artefacts like this due to the relevance these materials bring to contemporary high fashion?

8. Can you speculate how the biographies of contemporary high fashions made from new materials and technologies will develop in the future? For example, fashions that centre around sustainability, bio-textiles, fashions that are meant to have an end of life, decompose.

Fashion exhibitions and interpretation (materiality)

9. What do you think when you see a contemporary fashion piece that's suddenly changed due to degradation? Do you think Designer Intent is still represented within the piece?

10. How do you feel when you want to display an iconic contemporary fashion piece, but it is too unstable to be displayed and/or is recommended to be removed from exhibition? For example, are your aesthetic intentions disrupted?

Working with living designers

11. What are the benefits and challenges in working with living designers whilst acquiring and exhibiting their fashion pieces?

12. How important is it to consider the intent of the designer, the designer's USP, whilst researching for exhibitions? For example, a retrospective of a designer or the story of a design house

Research

13. How important is it to learn about/be aware of new materials and technologies emerging in fashion and textiles?

Question guide for interviews with designers

There are five main areas to address in the questions in relation to responding the main research question and aim and to probe the intangible aspects of the application of design by the designer. The areas are materiality/concept, sensory elements, material relationships, interrelationships and the role of the wearer.

Materiality and concept

1. What 'things' guide you when you begin to design a new piece of work, for example, is it a feeling about something you have encountered, is it a theme, an experience that has affected you, or is it the body form or the qualities of the material?

2. When you begin to design a new piece of work, do you start playing with the design concept or is the material more important?

3. How do you feel when you are playing and experimenting, is it the design concept or experimenting with the material that is more important for your ideas to develop?

Sensory elements

4. When working on new designs, what excites you when playing with your design concepts and/or materials? Do you use particular materials?

5. What is it about the design concept and/or materials that makes you feel confident, sure, pleased or less confident, not so sure and dis-pleased when beginning new designs?

6. Do you use previous references to fashion; new, current or historical references or archives when materialising/conceptualising your designs?

Material relationships

7. What is it about the behaviour of the material that can influence your design concepts and ideas when working on new designs? Are there any particular materials that you prefer to use and why?

8. What influences your engagement with materials, is it the hand, the texture, the colour, the aesthetic qualities?

Material interrelations (fit, movement, construction, form, colour, pattern, texture, look)

9. When you begin to connect your ideas and combine your materials to make new designs, what is it that makes you feel the new design is beginning to feel complete/it's beginning to come together/when do you get a feeling of satisfaction?

Role of the wearer

10. How important is the behaviour of the material in relation to the body/the wearer?

11. How important is consideration of the wearer's experience in your work when you begin to design?

12. What experience would you like the wearer to have when wearing your designs?

Equipment

- Recording device, iPhone
- Colour images of work by designer (for designer interviews)
- Laptop
- Camera

Recruitment process

The primary researcher will invite designers who are known to experiment with new materials through e-mail in a visual way to help encourage them to take part in the interview process. The same recruitment process will be followed to invite selected textile conservators with good experience of working with contemporary materials and fashion. Curators will be approached via e-mail contact.

Outcomes

- Accumulate high quality data to enable analysis and comparative analysis between designers, textile conservators and curators.
- Generation of experiential evidence through oral communication between designers, textile conservators and curators.

References

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Appendix 3

Sample of interview transcript
Interviewer: Leanne Tonkin
Interviewee: Susana França de Sá, conservation scientist, Universidade NOVA de Lisboa. Time: 1:01:57
Date: September 8th 2019
Location: (Telecommunications) UK/Chicago, USA

Future interpretation (before any kind of analysis or examination commences)
Leanne
How important is the interpretation of a design when analysing a unique piece? *(What aspects/issues go through your mind when thinking about the interpretation of the design of an artefact that is a unique piece).*

Susana
Yes, so for me, it's very, very important because I really like to understand the piece in the whole. So, the material and also the immaterial part. Because sometimes we only see the things that the equipment allows us to see. So, we are very limited, you know, our perspectives. And if we really know the artist, or the designer, or the fashion artists, we will see more, we will see in depth. So, for me, it's very, very important to know the author of the piece, you know, its background, and also to see which kind of thesis he's used to creating or she's used to creating. Because in that way I will be more open minded. I will be more aware certain things for example, and also, because sometimes the piece is already changed. And if I don't know the author work, I will do wrong decision, I will take a wrong decision. So, it's very, very important to know the author of the thing that I am creating because in that way I will make the best decision that I can with the sources I have available.

Leanne
What are the main considerations when conserving designs made with new materials, for example, new plastics, biodegradable materials and new technologies? (*for example, what goes through your mind when thinking of the consequences, or it could be the advantages, of preserving the design of the piece)*

Susana
For me, one of the things that I have to struggle a little bit was because a fashion design clothes or costume it needs to be worn by someone. So, someone should use that. And I also think conservation should also be aware of that feeling of wearing something. Because when we talk about fashion, we are not talking about works of art, it's different. And the feeling that visitors should be feeling should also be different, the experience. So, for me the conservation although I could be more focussed on the material part, for me it's also very important for me to also preserve the feeling of that someone feels and they wear something that is very novel, or very shiny, or very light or something. Also, that part the creator also wants to transmit. So, for me, that is one of the biggest challenges of fashion design conservation because we can preserve the material and the piece could be very well preserved and so on, but we are not really preserving the, for me, the soul of the piece. So that is one of the considerations. And for me, what we could do is like at least to show some videos, or to try to take some documentation, some pictures, some materials that people can touch, something like that.

And those pieces are very challenging indeed. Because I really think fashion design conservation is going to make some, to shake a little bit the conservation area. And also design, also, furniture and so on because we don't want to look like a fashion store or a

furniture store, we have to have something more something with more content. But we also need to, don't forget that they are not works of art they are something else. And when they enter the museum, they gain like a new identity.

And the materials itself. It's very complicated because they change a lot in a short-term period. They can change in five years. I had some cases that they changed during the exhibition that was like six months. And it's very complicated for us to deal with because sometimes the pieces change but not changed to a point that it cannot be exhibited any more. But then I have to think about what I am communicating to the public *is this still the piece of the artist blah, blah, blah or is this still the piece of someone else because it changed a little bit?* And sometimes when they are not alive anymore, we had to make some decisions about is this still the piece of? For example, Margeila, is the piece of, like.

For me, I think, that is the primary considerations that I start to think when I look at the fashion. If it has a material problem, then it's very like straight forward. Something that I could fix its okay. But I really need to know the artists, the designers, in order to see if this still remains the original idea that he or she created.

Leanne
What do you think helps you, as a conservation scientist, in decision-making and the gaining of more knowledge which helps you to conserve the interpretation of a contemporary designed artefact made from new materials? *(So, from a more personal point of view, what helps you in deciding how to analyse/conserve the interpretation of a contemporary design?)*

Susana
For me I think it's a good background of information about the designer itself. So, I really have to read a lot. And most of the time it's difficult because these recent fashion designers there are no books about them or text or essays or monographs that really go into the deep concerns about this particular designer. So, it's difficult to find information about these recent artists and fashion designers. But that helps me a lot and sometimes I miss that. And what really helps me is to have interviews with them when possible. But most of the time they are not accessible at all because they are very busy persons. We can try to make contact with, when they have archival staff, or their foundation or something like that. But it really helps to have the support of the people that work with them. Or at least to have some background of literature, something. In some cases, especially when they're not so famous, it's difficult. It also really helps to have materials that sometimes they store in their own, in their working spaces. Sometimes they've had some materials that they could gave [give] us to study so. Research materials and so on. It also really helps because we have techniques that we can use but sometimes we have to take samples or grab a sample that's not so small. So, it's really, it's good to have like an alternative to study the materials. It also helps, and I think it's mostly that. But to talk to them I think will be the most [best] support for a good decision.

Uncertainness
Leanne
What makes you feel vulnerable when analysing an unfamiliar material and/or an artefact that is intended to be exhibited in a fashion show? *(For example, feelings of vulnerability could be connected to issues, influences, characteristics of the object).*

Susana
Sometimes it's difficult because we can get the result, but we cannot say nothing about that result. Because the material is so, sometimes it's a mixture of different things. We can get

the spectra, or we can get the result of the technique, but we can't really say nothing. And most of the times I try and go to textiles stores and try to ask, also, to the staff that is working there. What do they think? What this material could be? Because sometimes it's several layers of different materials. And most of the times they don't know, they just have the fabrics there and they just don't know. And that makes me very uncomfortable because we are dealing with cultural heritage and the decisions that we make will have an impact in future generations. And sometimes I feel that we need to work more with the industry or more collaborations. Try to visit these kinds of companies that produce these new materials. Also, to know, try to know how these fashion designers select the materials because sometimes I don't know if they produce their own fabrics or if they just bought some things. I think that part could also be good if it exists, like to know how they select, if they produce in, which companies they produce, or in which countries. Something like that. Because it's very difficult to make a decision that is going to have impact in the future and in this case sometimes the future it's like ten years.

It is difficult because the materials change a lot in the short term. They, sometimes we think ah this is, for sure, polyurethane. It also happened to me, ah right, this is polyurethane. And in the end, it was not. Because the visual and the molecular sometimes they don't combine. And it's difficult for us without a good handbook or something that could help us.

Leanne
When assessing the condition of new and unfamiliar materials and or wearable artefacts what are the main aspects you consider? *(For instance, what channels of information would you follow up, and if those channels do not work what would be next to help with assessment?).*

Susana
I always start by a visual approach and then I will try also to see the date because the date of production really helps. I looked a lot into patents, so industrial patents in the google patents platform, also in the space.net that also has a good, it's like a library of patents. So sometimes they help me a lot to understand because I could see a correlation between what I have in my hands and what they were producing in that period but when we don't have the dates it's very, very difficult to find. The labels also are very, they could be like a first clue, but most of the times we don't have the label. And also, sometimes the labels are wrong. So, we also need to see to check the information. But it's mostly a visual approach, a good visual approach with magnification. Try to collect information on labels, dates and, also, which kind of materials this designer is using to work. Then I will go into material characterisation, and I will try to make some correlations between those results and the patents that I find. If I don't get nothing, if the designer is available, I will try to contact with them. So, far I was never successful in that task.

Leanne
How do you work through the unpredictable nature of a material/wearable artefact that is required for dressing/display/exhibition?

Susana
Especially when the museum asks us for the captions, the titles like the material lists. Sometimes it's very, and we end up like *synthetic materials* or something like that, because it's really, really difficult. We try to make some general conclusions and not to go into deep description. Also, we can't have a piece that has materials all very well described and then another piece close to that one that only says synthetic fibres or natural fibres. So, we

need to be homogeneous. So, when I can have the complete set of which materials they show I will try to be more generic.

Identifying challenges

Leanne
When analysing a contemporary design artefact made from a material you have not encountered before for exhibition, loan, storage, is it the specific characteristics of a new material that is important to consider during your analysis or is it the materiality of a designed artefact, for example, ephemerality, variability and value?

Susana
I think at first, it will depend on the condition of the piece. If the piece is in good condition, I will very interested in the novel material I have never seen before. If the material already shows degradation, I would be immediately more focussed on that. Because I think it's like a defect of our profession, when we see something that it's degrading our focus goes into that. And sometimes we forget the things around that are also very important.

Yes, I'm very interested about why they chose some materials among others. How they select? What are they thinking? Because it will be like an artist speaks oil paint, or he mix like calcium carbonate or titanium. Also, that selection that it's very appreciated in works of art. In fashion people don't think so much about it. They only think the aesthetic, like the design, the lines and not so much the materials and I think the materials are also very important.

Leanne
What other influences impact the conservation/analysis of contemporary design objects and how do they impact your decision-making when thinking about future conservation? *(For example, can you think of any cases where contemporary design pieces you have worked with have require specific thinking or challenged the status quo in your practice?)*

Susana
I think the material characterisation really impacts in conservation decision because if we detect a material that we already know that it's going to degrade in a short period of time. We will start to think about all kind of problems that can emerge from that piece and what we can do right away so the material characterisation it's very important. I also think it's crucial because we can try to predict future problems. Or we could say no, this piece is going to work very well in the future we don't have to worry about it. So, it enables us to create priorities.

When I am in a museum for me to create these kinds of priorities, I look at the age of the artists or the designer. So, if it's a very old fashion designer, for me that is also, it's always a priority, to collect as much information as possible. And also, the materials, we try to make this, kind of, prioritization according to the materials.

Leanne
As a scientist, have you encountered challenges during exhibitions when working with new materials and wearable artefacts?

Susana
Yes, there was one case, the Margiela coat, for instance. That was exhibited. It was made with a polyurethane and PVC film that was protecting like a duvet coat. Like the one, the coat we use to sleep. And at first the film was transparent and during the exhibition it

started to gain yellow spots and stains, very weird. In places that were not due to light or, we were not understanding that change. And the piece remained there during the whole exhibition. But for me it was like aaarrrgh we should take it off because it's, something is happening, and I don't understand why it is happening because it was not the straightforward degradation process. But the piece was very important in that exhibition. The curator was not comfortable about taking that piece out. The visitors were looking at, we tried to change a little bit, the illumination, the light, in order to, the stains to be more, less noticeable. But I was very worried because that specific collection Margiela worked a lot with the whites, and all shades of white. And the piece was starting to be yellow. So, I was worried about what kind of message we were communicating to the public. Because they were seeing the Margiela piece that was supposed to be white and now was yellowing. And with yellow stains, so it was not even a homogenous change, it was like spots. It was very weird.

We still have that piece in the collection. It's now getting a little bit worse but in a homogeneous way. So now the film is all in the same colour. We still don't know what is happening. It is very, very challenging. Kim [Verkens] reckons also look at the piece for us, it was also very weird. But she has some contacts with him, we will try and talk to him to see if this also happen. But it's very complicated because sometimes we don't even have the time to study the piece and the materials and things are happening and we have to make decisions of that, of things that we don't know.

Leanne
And how long was it on display for Susana?

Susana
Three months. Yes, it was a temporary exhibition, and very quick. But those kinds of stains started to happen I think in one month, one or two months at the maximum. And with this kind of materials this happens a lot. Things happen. We don't have time, even to analyse to see what this, because it takes a lot of time to take a sample, to look at the piece in the right way, to analyse, to have the result, to try to compare it (?)...and with this kind of modern and synthetic material most of the time we don't have that time.

Leanne
You mentioned, the curator was uncomfortable about taking the piece off as well. It's very curatorial dependent isn't it.

Susana
Yes, it is very difficult. Because, you also think about the message, the history. Like a narrative, and that narrative, if we remove one of the most iconic pieces, it will be destroyed. So, it was like, aye but the exhibition is going to end in one or two months. It's not as long. The piece at the end could be like a total loss. So, we have a balance between what we are willing to lose or not. But *are but it's as important*. But it's very, very difficult to have this kind of discussion. Now I think the conservation field is gaining a more powerful voice. But only I think recently, because they are also saying they are losing important pieces of the collection.

Leanne
It's very sad because I think they're learning their lessons retrospectively, so you've lost it before they start to listen.

Susana

And sometimes, for example, in the MUDE collection all the pieces are problematic materials. So, if we start to put them all in storage, we will have nothing to show to the public. If we start to protect everything, everything, everything at once we will end up with an empty exhibition room. It also, we have to have some balance, because we are going to lose things. It's the way they are, it's their nature, and we can't be like superheroes, so we can't save everything. And sometimes, I also need to compromise somethings and to be aware that people, the visitors need to see these kinds of things because they are important also for their culture and for their education.

Documentation

Leanne
What documentation/procedure do you undertake when analysing a never encountered textile/fashion piece, for example, an electronic textile that incorporates new technologies? And this could be a new acquisition or a loan.

Susana
So, I will try to make the biography of that piece. Like the creator, the date, the owner. Try to make the history of the piece before it enters into the museum, that is my first approach to the documentation. Then I will try to gather as much information as possible about the creator itself. So, I try to read somethings. Also, if it is like a *really new* textile, like those with the electronic, I have never found one, if I would find something, I would make a lot of photographs, I would take a lot of photographs. So, photographic for me it's very important. Also, because of trying to, see the evolution during the time, if it changed or not. So, photographs and also, these kind of small notes like where it has been, it which conditions, I'll try to make that kind of biography. And sometimes, I go into more technical textile books, if they exist. I look…

[Lost connection]

Leanne
How would you analyse/document a material, like a biodegradable material, where the material is meant to degrade over time?

Susana
So, when it's meant to degrade, I think my first concern is about what is the limits of that degradation. In that case, the only experience that I have been was with an artwork and not with a fashion designer, but the artist said, *oh this material can degrade I'm okay with that, it's not a problem, it is supposed to degrade*. And I was like, but what are the limitations of the degradation? Because these materials can get yellow, orange, brown. It can liquify, it can, you can completely lose it. And it was very important for me to define boundaries of that limit of degradation, because sometimes they say, ay, it can change but they don't have a clear idea of how that change can go. And how far it can go. So, if I can't predict how the material is going to degrade it will be even more difficult because I won't be able to communicate to the creator about those kinds of changes that I am already expecting.

Most of the times I'll try to do ageing experiments in different conditions. I will try to document. I try to do that, sometimes I have my own, at home experience. When I buy some materials and I expose them outdoor, indoor or I try to put them in different ways, and I try to make my own documentation about how materials degrade. And at least that will give me some comfort about making some decisions because I will know them a little bit more.

Yes, but I would try to define the boundaries of that degradation. That is very important. And most of the times they think things degrade in a very *slow* rate and they degrade in very, very few years. All of the things that I use is like, *in one hundred years if this is completely [gone], what can we do?* Because sometimes I think they also feel that they are immortal so they will never die. That they will always be there to have. So, I always use the *in one hundred years when you won't be here, how can I make that decision?* Or *Who should I call or who should I be talking to that knows really well your work?* Sometimes I try to do that.

Leanne
When documenting and analysing new, emerging materials or, materials that have the potential to change over time, what would be the considerations for future analytical procedures? *(What is it that grabs your attention as a conservation scientist, whilst documenting and analysing new and emerging materials, relating to the future care and exhibition expectations?)*

Susana
I would try to look for additives, plasticisers because these are the words that pop up like, danger, danger. So, I will try to look for that kind of information into the documents that I was able to gather. So mostly additives, also during the processing I would try to see if they used any kind of adhesives. Something like that, or if they use high temperatures to produce these kinds of materials or if they don't. But mostly, that additives, adhesives. Also, transparent materials, they worry me a lot, because they are the ones that get, that change in a quicker way. So, those are also kind of pop ups of problems. And I think that's it, mostly the way that they were produced to try to see if something can be a problem in the future.

Leanne
As a scientist, would it help you to work with the designer directly or not?

Susana
Yes, it will help me *a lot.* And I think it's one of the things that I miss most because I have already worked with artists. And now they are more open to work with conservators. But fashion designers are still very far away. It's like, a social class that I cannot enter. Because I don't know if they, if they look at museums as a place for them to really keep communicating their work to the public. I think they only look at now, now, fashion shows. They don't see themselves as important cultural heritage that should be kept for future generations. I think they don't worry about that.

[Leanne has discussion on comparative data from other interviews on this matter]

Susana
The only fashion designer that I was able to talk to, it was very interesting because we had a piece that was from the '90s, something like that. That completely changed in colour, it was silver colour and now it's green. And when we talked to her, we were able to talk to her but only by phone, she was like, *oh no throw it away that is garbage I don't see myself in that kind of pieces anymore.* That is not my work anymore now I'm doing different things. It's like she has done certain things in one period but now she is a completely different fashion designer, so she even doesn't want to have her name in those kind of '90s pieces that she done in the past.

So, she *oh that is garbage, throw it away, why are you worrying about it? Don't be worried, don't worry, I don't see myself in that kind of costume anymore.*

Leanne
It's as if they didn't design it for museums.

Susana
Yeah, they didn't. They are changing every time. They want to innovate themselves every time. They don't look at like a legacy they want to keep. It's like renovating every time, every time.

Advising on treatments (dialogue between conservator and scientist)
Leanne
What are the main points you would consider when analysing new materials and never encountered textiles, like electronic textiles, electronic fashion? *(What's the main focus when analysing contemporary design artefacts that are made from unfamiliar materials?)*

Susana
I will try to see how those materials interact with each other. If we have like contaminations. So visual observation is very, very important. I would say that it's like the first thing, visual and taking photographs, so I would advise them to try and see those interactions if the materials that are in contact with each other. If there are something that could be contaminating the other or volatiles that they think are being released or the smell. I also think the smell and touch if its sticky or not is very, very important. So, they need to see it to look, to touch, to smell. And if they think there is something is not working, something is wrong, I will try to advise them to try to put some tissue or something in between, those. Or try to separate if possible. Try to separate the material that they think is more problematic.

And also, to take a lot of photographs and to have like a periodical inspection. In this these kinds of materials I would say every three months, try to look at the piece. Every three months and try to see if it's changing or not. That would be my advice. And also, the most common things like, keep it out of light, in a stable relative humidity, also stable temperature if possible. But periodical inspections, I know that they don't have time. Most of the museums have to deal with thousands of different pieces. But these that are more problematic, I will do that. I will establish some priorities, and, in those species, I will try to do three months inspections, every three months. And visuals, taking photographs and trying to see interactions. Because sometimes the materials are completely different, but they are still, sometimes they don't raise problems. But if they do, we should be, we should not wait, we should be very aware that things can happen in short periods of time.

Leanne
To be reactive, rather than being responsive?

Susana
Yeah.

Leanne
When treating an unfamiliar material like an electronic textile, what procedure would you undertake to help advise on stabilising the artefact for storage, loan and/or exhibition? *(Use a case study if that makes it easier).*

Susana
So, since it's a completely new field for me I will talk to electrical engineers because I had to know how it works, how it should look because it is not a field, I have any expertise in. I

will try to talk to other colleagues that work with those other components. I will try to see if the technology is something that it changed a lot in time or if it's like a technological thing that if I need to replace something it will be possible. Or if I have to now buy a lot of components in order to be able to replace them and how I should keep them. So that would be my first worry, I think, try to understand the technology, talk to a lot of electrical engineers. And to see if I can replace something or not, how?

Also, I would try to get, if possible, photographs or videos about that piece in show. What it was supposed to be, if it was supposed to have light or shine or some colour or something working or not. Because sometimes the pieces enter the museum without any documentation. And then when we start to have questions it *ay, we don't know, we don't ask before.* So, I think that will also be a bit of advice. So, when a piece enters the museum try to have a form of questions that we can make it right away. Or to the owner or the creator itself. Or to the institution. A lot of questions in the future if we need something, at least we will have the basis of information.

Leanne
When analysing a contemporary designed artefact that is intended to go on display, when do you know to draw a line under any analytical work? *(For example, can you describe a feeling when you reach that point when you feel satisfied the material analysis is complete?)*

Susana
I always try to select the analysis according to the questions that I have. So, I don't send pieces for analysis just because I have access to them. I have a question and I try to see which kind of analysis I should do to have the answer to these questions. And if I get the answer, I would say *okay I am done*. Because of course we can do, more and more analysis because there is always something that we could know that we don't know yet. We have to make decisions and we have also other pieces that we need to look at. We need to *stop*. We need to say okay, this is it.

It always about trying to answer to a question. Sometimes, I don't make the right questions because at that time that was the things that I knew. It's like the way it is, we have to try get together as much information as possible, try to make the good questions and try to solve them. Because if we don't stop, we won't be also useful for the museum. The museum has to make decisions, and we need to help them. We cannot be like the problems maker without any kind of solution. So, for me I would be very satisfied when I am comfortable with a decision, like I feel I did everything that I could. I tried to go to all these different sources, materials, the artists, also the history of fashion. Companies that produce those kinds of materials, patents, if I looked at all I would be satisfied and also the analysis that compliment a lot. That will be it, I think.

Having the intent of the artists in the decision-making process.

End

Appendix 4

Conservators – outcomes from initial grounded theory analysis

Knowing loss

- Advantage knowing what the limitations are because it sets out boundaries
- Measuring and understanding loss
- Intuitive when condition checking/assessing/treating unfamiliar materials
- Designer intent goes beyond degradation within a museum context
- Practice-led values/practice of not knowing becoming the norm (1)
- Assertiveness increases over a shorter period of time when artefact has limited future
- Ethical lines of caring for expected loss
- Temporal archiving/accessioning
- Transient nature (designer desires can be transient)

Challenging modern materials/technologies

- Embedded material engagement (unseen)/embedded properties that are difficult to conserve and interpret i.e. moisture on skin, biomaterials (2)
- Evolution of materials may be taken on different realms difficult to 'museumification'
- Material change in the short-term
- Living designer can reduce the value over time because of change in material due to degradation and the artefact no longer represents the original aesthetic/work of the designer
- Locating interpretation/designer link to artefact/current designer relationship towards artefact
- Immaterial prohibitive nature with ethical conflicts
- Material prohibitive nature with challenges to conservation and interpretation/ become corpses in time
- Materiality through the act of degradation
- Distancing because of prohibitive knowledge and material requirements are beyond skill sets
- Lack of interaction because of stability causes limited knowledge gain and therefore, knowledge is not pushed forward/contrast to traditional material where knowledge is already collected (4)
- Avoidance by isolating problem
- Renewal, not realistic sometimes because of effects of age
- Reinterpretation if conserved – retrospective nature (3)

Permanence/Impermanence

- Storage can be an excuse to keep artefacts because they are considered a safe haven
- Textile conservators are driven to preserve for the future
- What does longevity mean? How do you measure longevity? Longevity of a new material and could be measured as something different to the usual meaning of perpetuity
- Focus for new materials and technologies is stability
- Material change in short-term
- Restrictive and limited future
- Contradiction as permanence is part of collecting ethos and new materials and technologies have short lives, both materialistically and immateriality
- Long-term, short-term, accessioned, not accessioned

- Waiting game to see how modern/new materials react = unfamiliar futures. Need a current system that is practice-led decisions via materials/artefacts
- Retrospective nature (3)
- Sense of care for the future is a physical one
- Many 'one-offs' (contemporary fashion artefacts) that can never be conserved or displayed again because of poor condition.
- Exchanged, transferred to a museum setting.
- Museum houses the value system of fashion exchange
- The 'new' will become 'normal' in time (1)
- Exhibitions can antagonize ref. condition of new materials and technologies, public understanding of material change

Degradation intended/not intended

- Conserving an artefact that will/expected to degrade
- Stalling, denying natural process revealing embedded denial
- Focus on degradation and not novelty/new material so knowledge not gained and pushed forward (4) = limited/restricted future
- New materials, i.e. Latex, can have 'lower status' and not accessioned – (V&A) NCOL. This 'shifts the ethics' in thinking about longevity in contemporary fashion made from new materials and technologies
- Scale of appreciation in degradation being part of the design process/story (Viv Westwood, Martin Margiela)
- Multiple documentation for different stages – parameters of documentation

Pressure (sense of not knowing)

- Cautiousness to conserve/ no strategy
- Knowing the material at the beginning/knowing the artefact
- Liken properties of materials/ making relations through practice
- Sense of relief in power if collaborative in approach – assessing
- Curatorial driven in deliver expectations for exhibition can create a sense of disappointment if not possible due to knowledge of new material
- No mutual understanding of consequences of new materials and technology

Values in knowing designer intent

Designer appreciation

- Distinction of designer (link) as a valued commodity to fashion artefacts
- Designers' intentions are different to that of museums intentions. Levels of expectations have different agendas.
- Designer intent is beyond degradation – 'alive' scenario
- Living designer is useful and valued because of richer material that can be gained so skills in negotiation and diplomacy are required
- Accessibility to designer empowers conservator even if challenging in demands. This is limited because of hierarchy in decision-making
- Designer interview expands value of new fashion

Physical/retrospect

- Longevity is not a current notion (3) creating uncertainty in interpreting the designer in the future (retrospective nature)
- Physical still important (artefact/unique)
- Managing expectations to help balance outcomes, document and archive
- Material choices made by designer is a useful means to conserving new materials

Variants

- Various identities: designer, producer, conservator, curators, institutions
- Different stages of design that will age differently: prototypes, mass-produced, series, multiple, variations in materials
- Designer and producer – intent and physical versions to help conservation approach of artefacts that are further down the line in production = discrepancy in the meaning of intent
- Designers are influenced by each other – transcends ideas and reflects in material choices (Martin Margiela and Raf Simons - PVC)

Role of wearer

- Obvious celebrity/event attachments
- Embedded nature of the materials (biomaterials) moisturize skin (2)

Recommendations:
Going to have to think short-term if you want to capture the contemporary fashion designer intent accurately for future archiving of new materials and technologies.

Appendix 5

Curators – outcomes from initial grounded theory analysis

Capturing the futurity of contemporary fashion

- Authenticity: looking for 'truth', 'honesty', 'notion behind design',' integrity', 'sincerity', 'typifies'. This can drive investment. 'Knowing and fictionalising'.
- 'Use' of the artefact and multi - display-ability to interpret different stories. 'multi-interpretable'.i.e. Role of wearer – different visions than designer
- Often decisions are material-led despite being a 'major' 'influencing' piece because of known degrading properties. Unpredictability of new material.
- Collaborative relationships in how to bring fashion artefact into collection. Justification process and collecting the future that is already the past.
- Tension if conservation notices limitations of material and construction. Assessing 'end-of-life' as a fashion artefact. Ethical balance and not being able to 'future proof' new materials.
- Collection policies (public funded) help wide and changing perspectives of fashion artefacts. On-going process, no fixed point in collecting.
- Pressure to select under a 'short-term value' mobile units of social and multimedia platforms – profit verses non-profit.
- Distinctive and supporting fashion. Emphasis in interpretation.
- Questioning structure – role of the body – lasting value
- Role of wearer – different visions than designer

Collecting the moment in design/futurity of the designer

- Risk taking aspect whilst acquiring design moment. Uncertain of success of designer.
- 'Momentary capture' point of acquisition in a designer's work life helps justification of moment in design and help inform future museum values.
- Who and when to collect? New designers who influence their peers indicates they are becoming an influencer.
- Influencer/trail blazer – key = major designer and high fashion. 'real clothes' 'real fashion' 'sincerity'
- Curators have to be able to show awareness of success of the artefact at the time.
- Hot spots of innovation 'stand out' draw attention to curator and provides scope to collect.
- Collecting a designer at the right time – raw stage is key because of impact. This moment of rawness will carry resonance to make it worth collecting.
- Moment in design that shows strong notion in design. 'severity' of a designer's work.
- Questioning structure, triggers inclusion in fashion history. Research, stage, process and transparency.
- Embedded values in fashion artefacts. The value in Haute Couture standard includes quality of finish which can often not be showcased but valued the curator and conservator.
- High skill sets required 'to create fashion' which are completed by experts and specialists.
- Subjective approach to realising designer's vision – re-creation phase. Static mannequins challenging.
- Scope to interpret intangible part of the process by working with designer.
- Authenticity can mean conscious of designer – beyond control.

Managing value in lifetime/longevity

- Institutional resonance influences/generational investment. - 'the language of the collection'. Longevity/perpetuity, major pieces must survive and not change in condition.
- Material life stories, 25-50 years. Stability gives value to artefact. Embedded in anthropological approach – 'sells artefact' existing and future histories.
- Time span when thinking about 'intended degradation'. Needs to be long enough (10-20 years)
- Systems (NCOL) to allows for end-of-life to exist and desire to collect short-term. Long-term priorities (research/documentation) alongside short-term considerations (physical degradation).
- Future values include synthetic materials helping to position in fashion in heritage
- Unsustainable and sustainable fashion needs to be discussed in museum environment. Life cycle means something different to durability.
- Behind the scenes visiting – extends cut-off point of unstable fashion artefact.

Value of degradation

- Can show how multi-faceted designer intent is through localised degradation, intent exists in stable areas. Story, practice, material, silhouette.
- Instantiation of fashion - act of the catwalk using extramental materials as part of the act. Degrades on stage.
- If meant to degrade or be disposed means 'perverse' to keep alive because it pushes against 'original' intent.
- Volatility means naturally soured materials not just chemically made ones.
- Bio-based materials can be valued less in acquisition process. Relegated to 'non-object' due to short-life expectancy.
- Maintaining physical 'loss' through degradation is challenging – resource intense, trapped in 'foot fall' stats.
- Part of the nature of new materials is they sometimes degrade/disfigure.
- Value can be above the condition of the piece, societal moment that is worth collecting.
- Degradation can be part of pioneering a new material/technology. Shows consequences of designer's process. Talks about material, future of fashion.
- Degradation can be seen as interesting if not pressured to 'retard' effect.
- Unintended – side effect disrupting design.
- Historically, there are different versions of degradation relating to new materials. i.e. PVC from 1960s has survived, new PVC has not.
- Slow down and extend life. Survival is an important element. Degradation questions approach to fashion.
- Difference between intent and materiality
- Degrading artefacts can be seen as no longer 'useful' and can be re-evaluated as calculated risk.
- Spectrum in material properties (variables).
- (Status of wearer/key figure enriches designer appeal)

Balancing the loss of fashion

Authenticity

- Sustainability story has authenticity issue because bound to textile system.
- Sustainable story allows for intended degradation – loss of fashion accepted
- Balancing loss/authenticity whilst making decisions to select for display – if yellowing/degrading cannot communicate in the same way as designer intended.

- Aspirations to overcome ‘greed’ of designer. To overcome the use of ‘active materials’ that contribute to replicating other designers and profit. ‘Greed’ is impossible to collect due to new material selection by the designer and losing the artefact through degradation.

Losing representation

- Digital realm as communication undermines curatorial contribution to fashion history. Loss of significance through multimedia platforms. (Status of wearer/key figure enriches designer appeal)
- Too idealistic to preserve ‘newness’ of fashion.
- Loss of ownership in museum because vision is dispensed – no longer relatable (unlike MoMu).

Loss of documentation

- Loss in fashion is fast/ephemeral, pressure to capture moment, otherwise gone. Can be lost quickly whilst designer is becoming established, forgotten and not documented because not collected at right time.
- Identify with problematic materials and will not acquire despite being major.
- Risk of not capturing fashion design history because it cannot be kept in the same state it was meant to be.

Working with the designer

- Designer conflicts with institution can mean vision not fully interpreted. Museum does not tell definitive story, only an interpretation (difference from art)
- Priorities between curators and designers can be different relating to what is ‘key’ ‘popular’. Contradiction in practice of interpretation.
- Authenticity of curator is challenging to define if living designer is present in decision-making.
- Original intent challenging to retain – could ‘mis-remember’
- Designer values transfer/shift to next season making it curatorially challenging to value previous work and make culturally significant.
- Strategy of collaborating to get better interpretable results i.e. help to select.
- Risk-taking by working with designer - co-curate/allow scope to interpret – reduces struggle to show and increases engagement.
- Designer intent useful for display/interpretation. Piecing together ideas.

Recommendations:
Re-think expected life span of contemporary fashion artefacts and create a better appreciation of deterioration patterning by collaborating and mixing responsibilities with conservators and designers. Develop strategies that will help hold the story of impermanent fashion.

Appendix 6

Designers – outcomes from initial grounded theory analysis

Immaterialism

Immediacy

- Immediacy and instantiation of fashion are elements that are part of the designer's creative process, for instance, touch, igniting and grasping feelings of desire and translating sensitivity. Sensitivity is key to help translate the moment, the touch
- Social instantiation of fashion can reduce curiosity, patience and energy in the creative process creating a 'shortness in the new'

Quiddity

- Quiddity element to creating – landscape of the designer's desire and core aesthetic emotions and motives. Influenced by the changing
- Questions of how designers touch desire can be a physical embodiment, therapy, notion, unique feelings, manifestation - 'thinging'

Unfixity

- Unfixity element to staging progressive creation, ongoing stimulus, non-verbal dialogue, constant language, non-physical relationship, desire to share unique feelings of the moment with wearer (and viewer)
- Subconscious visual act that is not translated verbally. Visual notions that are part of the subconsciousness that is challenging to articulate and holistic in nature – sensory imagery
- 'Unattainable in the mind' meaning all-inclusive approach to creating, no exclusions when conceptualising. Desire not to be domesticated, templated, cultivated and framed
- 'Doing the concept' involves elasticity and fluidity in the subconscious and can be narrow in scope

Literality

- Desire to resist literality as part of the creative process, can reduce the appreciation of aesthetics – loss of energy
- Literality in fashion can be unfixed because wear can be imagined and not physical
- Narrow language if concept is too literal to designer but not understood by the wearer (and viewer) 'the grammar of fashion is actually quite short'

Translation

- Aim for the ultimate, personal utopia, then 'edit-down' during translation period
- In wearing (and viewing), deliver a heightened experience. Translate excitement and energy and provide an emotional package - transformative.
- Experience emotional and imaginary fit to engage with wearers
- Different senses project different translations

Material Language

Newness

- Going beyond what is expected from traditional material properties because 'things change when working with material'
- Good to use materials for wrong reasons
- No commonalities allow for unpredictability, unfamiliarity and variables. Commonalities can be restrictive if working with relatable concept
- Surface qualities can be more important than base material itself. Ability to change surface of a material is important to help hold ideas. Holds shape, creates richness, shows rigidity
- Sub-areas of interest can be created in the surface of the material - forms contrast and variables

Materiality

- Materiality has various strengths depending on body positioning. Visibility, focus and emphasis can be shifted relating to the body
- Material movement gives experience to wearer and can change emphasis in showing the body – mechanisms to emphasis the mobility of a silhouette
- Be ready to tweak and edit new concepts as they happen to bring back to the body, otherwise the concept, the moment is lost – need to 'edit-back' to the body as material can move beyond the body
- Relationships with the body and physical touch increase authenticity and value in material engagement this is paramount to fulfil desire of designer
- Cognitive palimpsest process – replication of mind – materialised an action in the mind, 'material exorcism' relating to spiritual entities – embedded touch
- Sense of ease once design is translated/materialised
- Preference to working slow to help find a 'rhythm' and 'link' to craft
- Material engagement includes - interaction, relationship, satisfaction, stimulus, intensity (colour), movement. Accumulative 'thinging' through connecting relationships when working with material
- Materialisation challenging because it starts from nothing for each design
- Accessories can be freer and show different materiality in comparison to trapping the body with clothing
- Instinctual material choices with sustainable strand and materials offering 'wholeness' – holistic in their behaviour
- Preference to working slow to help find a 'rhythm' and 'link' to craft
- Embodying deeper concepts through the material. This is translated through manipulation, pushing or embracing properties, and eventually the end result engulfs concepts = Distributed value and embedded distribution
- Material choice is resonating to help embed values, build concepts and build relationship with designer. It is the tangible asset that can be worked and changed
- Sensory textures – illuminated material, like e-textiles, offers light spectrums to designers

Purity

- Haute couture is a testing ground for new materials – there is a different relationship with fashion – natural, pure, simple
- Aim for purity, inimitable and irreplaceable materials
- Push the material creating spontaneity and extramental materials
- Honesty, natural and instinctual feelings needed to establish integrity in design to create new fashion, new language
- Balance and harmony

Sustainable Thinking

Natural

- Materials sourced visually through 'growth' (bio-based) are new and different
- Universally relate through materials that grow, change, develop life cycles via biodegradability
- Deterioration part of process of cyclic production and design story
- Naturally occurring aesthetics
- Bias for natural, simple materials and preference for the behaviour of natural states

Relevance

- Topical meanings and reactions to environmental social impact and sustainable practices
- Identifying the consequences of selecting naturally sourced materials

- Move away from political and economic landscape to gain empowerment that is not consumer-led
- Different authenticity to fashion when not part of a consumer system by disrupting expected aesthetic and making material more personal and engaging
- Emotional engagement can provide longevity
- Extended meanings and feelings for the wearer (and viewer)

Heredity values

- Archival fashion reflects a less developed world meaning more individualism, newness, rarity and uniqueness. 'One of a kind' which helps draw on authenticity
- Heredity values and future presence as a designer or contributor to design is important in creating an identity of designers in archival collections.
- Challenge to archive, to take forward to be represented in the future - the body entering an artefact devalues the piece
- Archives can be used as a response to a situated experience beyond the physical artefact itself – livens ideas but does not constrict/repress to create design. Freer and fresher projection of desire to use heritage/archives
- Ongoing story of designed artefacts, revisit and reshare as a designer to help create new ideas

Recommendations:
Need to capture immaterial and material concepts to help the conservation and interpretation of contemporary designers' visions and manifestations of new materials to enable the development of future archives.

Appendix 7

Initial draft:

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Pre-empting loss through 'fashion memory': a 'postconservation' perspective.

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Abstract | Caring for modern materials and technologies used in in contemporary fashion can become an archival dilemma, especially for museums collecting the intentionally ephemeral. Degradation becomes a focus, which is often evaluated via scientific research, empirical investigation, and interventional (physical) conservation. Quickening material degradation can often heighten anxiety in conservation and curatorial practice because this can limit the potential use of the artefact. In addition to using traditional modern materials some fashion designers are following sustainable design strategies in textile manufacturing, ones that challenge the growth model. Biodegradable materials have characteristics favoured by some designers, who intend for their creations to remain stable in use and wear before organic disposal. 'Progressive fashion' such as this raises questions and the need for new interpretive practices within fashion conservation. This paper examines how modern material degradation can lead to new 'material relationships', thus enabling future uses and users and hence allowing different aesthetic views and 'fashion memories' to coexist. A 'postconservation' model, suggested here, is to extend the legacy and appreciation of fashion artefacts by moving from a representational conservation approach towards one that embraces documenting and preserving the performative, wearable, and renewable concepts. If a fashion item is designed to degrade, what are the archival implications in conserving, documenting processes and 'performance' of the applied characteristics of such artefacts? Methodological approaches using

Material Engagement Theory and postphenomenology help to introduce temporal dynamic elements that postmodern materials often show during the transient process of degradation. Object studies of a wild rubber dress designed by Vivienne Westwood and Andreas Kronthaler c.2013, ECCO leather dress by Iris van Herpen, c.2010 and Rootbound #2 dress by Diana Scherer c.2017, highlight notions of pre-empting loss as a collection care approach, illustrating the potential benefits in archiving of the temporal aspects of contemporary fashion. Outcomes indicate creative practices of fashion designers using modern materials cannot be represented as being stable nor neutral.

Keywords: postmodern materials, fashion memory, postconservation, postmodern fashion, post-growth fashion

1.0 Introduction: the emergence of postmodern materials

Reconceptualising aspects of degradation when considering postmodern fashion heritage may become crucial in rethinking archival practices which currently preference perpetuity when collecting artefacts. Acknowledging material changes in artefacts could support developing documentation procedures, including the recording of designer intent as a future archival strategy (Schertel 2011, 7-24; Tonkin 2017, 152-167). New polymer, bio and electronic based (e-textile) materials have emerged over the last few decades and caring for these materials in contemporary fashion collections has become an archival dilemma for museums, particularly within artefacts that are intentionally ephemeral. Postmodern materials, a term derived from the scope of this research, acknowledges the creation of new materials using progressive production methods developed from the late 20th century to the present. These methods may be influenced by advances in material engineering, digital technology and environmentally focused design that aligns with the ecosphere in a postmodern culture.

Intentional ephemerality is becoming inherent to some postmodern materials as part of design praxis. The physical representation of concepts and ideas embodied in the original design can be lost due to degradation meaning postmodern fashion such as this raises questions relating to the need for new interpretive practices in fashion conservation. In this research, object-based interviews and discussions with conservators and curators working with fashion collections in the UK, EU and US, have been used to evidence different approaches to examining, identifying and dealing with the effects of degradation and change in postmodern fashion artefacts. Analysis of these studies has resulted in considerations of how these new materials and artefacts might be conserved in ways that are empathic to their conceptualisation. Material Engagement Theory (MET) and postphenomenological theoretical approaches have been applied to support the hypothesis that acceptance of artefact degradation can lead to new understandings of material relationships within the conservation of textiles and dress, enabling alternative aesthetic views and disparate 'fashion memories' to co-exist.

2.0 Conserving (im)permanence in contemporary fashion artefacts

The value of decay has been explored in conservation, preservation and anthropological literature, which supports the notion of changing materiality of an artefact (Kopytoff 1986, 64-91, Muñoz Vinas 2005, 101-104, Ingold 2012, De Silvey 2017a, Sweetnam and Henderson 2021, 6). While most textile-based objects will biodegrade over time, items 'designed to biodegrade' introduce the notion of 'transmutability' (Pollard 2004, 55) which can create different contextual meanings, widening other relationships with the material whilst on display. For example, Rootbound #2 dress by Diana Scherer, the artist intended the materials to degrade, as a necessary condition that is characterised as being fast degrading by changing their physical and chemical states (DeSilvey 2017a, 11). If communicated through exhibition, as in 'Fashioned from Nature', V&A (April 2018 – Jan 2019), such material changes can increase the fashion cultural user(s) curiosity, in line with Designer Intent to develop a new form of material relationship, between wearer and culture.

Contemporary fashion culture co-exists with, and is the product of continual social, economic political and environmental influences. The impact of COVID19 and environmental disasters, for example, the Southeast Asia floods, Australian wildfires

(2020) and East Africa droughts (2011-19) (Oxfam 2021) during the development of this research has exposed how global trauma and inequalities may lead to the reinvention of how cultural assets are viewed in the future. ‘Fashion embodies this ambivalence’ (Evans 2003, 307) where post cultural views could encourage the role of the museum as the broad conservation of artefacts where possible, with documentation embracing future interpretation within the historical context. The way fashion artefacts are currently selected is based on an established approach to conserving traditional and modern materials. This research responds to, and evidences the identified inability to conserve postmodern, including sustainable biodegradable materials holistically within museum collections, by introducing new documentation of designer intent, to avoid the loss of transient and temporal forms of fashioning the body (Entwistle and Townsend 2020, 289-304).

2.1 Pre-empting loss: towards a postconservation approach

Understanding and measuring loss through degradation and damage in artefacts of cultural significance is traditionally known to be ‘one of the cornerstones upon which conservation decisions are built’ (Clavir 2002, 43). Established sustainable conservation practice relates to established protocols of reversing damage through repair to stabilise an artefact using minimum intervention. Recently the profession has acknowledged that artefacts can survive differently beyond the life times of contemporary stakeholders (Henderson 2020, 195, 197, Muñoz Viñas 2020), implying that loss in the heritage sector could be understood from different cultural and societal positionings. Challenging the tradition of collecting and maintaining ‘irreplaceable’ artefacts for as long as possible (DeSilvey and Harrison 2020, 2) could lead to museums becoming more renewable resources supporting changing historical contexts. Greater appreciation of social, economic and environmental systems of production that give an artefact meaning could inform more sustainable and transformative models which accept that some materials survive, some partially and some are lost (DeSilvey 2017b, 185). Documentation and archival practice require to be adapted to reflect the various circumstances surrounding the materialisation of the artefact. Conservators working with postmodern materials could identify items from a ‘postconservation’ perspective, whereby processes of biological, chemical and physical breakdown are integral to balancing an items useful life and loss within material culture. The parameters of documentation could become multiple, evolving through practice-led conservation work that reconsiders patterns of material change. Devising an ‘activity-centred’ (Malafouris 2013, 149) documentation process, as opposed to a human-centred focus where archival stakeholders, conservators and curators, follow standardised procedures, could recognise a relational ontological approach to recording Designer Intent, material and degradation as inseparable, reinforcing that intentionality and material agency are not innate but emergent properties of material engagement.

2.2 Postconservation and temporary archives

Temporary archiving of changes in the artefact properties over time could be viewed as a more enactive approach to fashion acquisitioning and is a practice being adapted at the Victoria and Albert Museum (V&A), London. Fashion artefacts showing material

innovation made from progressive manufacturing methods and which have a likelihood to degrade, can be acquired as a Non-Collection Object (NCOL). The term NCOL's comprise objects belonging to the V&A but are not part of the permanent collection, including mounts, handling, teaching items and packaging which are included in the Collection Management System (CMS) useful when planning for exhibition, research and other access. This archival system provides a solution that accepts degrading elements as being part of the material phenomena, working around museum policies of permanent acquisitioning (V&A 2019), where disposal is a complex and debatable process for museums in the UK (Museums Association 2021). NCOL opens up ethical options allowing for 'artefact-end-of-life' through the natural course of degradation eventually making the artefact no longer useful and ready 'to rehome' (Elisabeth Murray, conversation with author, October 21, 2019) or be legally disposed. The NCOL system presents a potential solution for approaching the conservation of postmodern fashion. For example, changes that occur to textiles through the passage of time may be viewed as 'dynamic attractors' (Malafouris 2013, 247) where conservators, curators and other museum stakeholders adopt variable societal, cultural and aesthetic values, accepting and emphasizing the 'notion of wear' associated with temporality and ephemerality, i.e. 'fashion memory' (Townsend 2011, 91-107).

Interpreting ideas of 'fashion memory' is demonstrated by fashion practitioners and researchers who are developing new design paradigms between archives and wearables (Townsend *et al* 2020, 89-110). In this work, material engagement with historical dress artefacts is used as a method for identifying past and generate new craft skills by drawing upon 'distributed cognition and memory' (Ibid, 93). Material engagement through the examination of postmodern fashion, like those collected as NCOLs, may shift conservation paradigms to allow for 'epistemological uncertainty' (Henderson 2018, 109) when accessing and viewing fragile objects. In the future, degradation could be considered a key aspect of the condition of the object that is not solely connected to misinterpretation, disposal and loss, facilitating archives as temporal spaces for current and future cultural uses and users to have a more 'meaningful and reciprocal relationship with the material past' (DeSilvey 2017b, 179). These material relationships based on the appreciation of imperfection or wabi-sabi, may demonstrate conserving fashion heritage has similarities with human fragility itself, encouraging an affinity with natural ecology and its changing conditions, ongoing aging processes and inevitable decomposition. These types of material relationships between the viewer and the artefact could create a shared, relatable and positive material engagement with culture, one that is not inestimable, helping to increase diversity in cultural users. This reversal of a traditional conservation approach to retain artefacts in pristine and if possible, unworn condition, prioritises the degradation process and short-term lifespans of degradable materials, as a progressive, sustainable goal in interpretative fashion practice.

3.0 Material Engagement Theory, postphenomenology and conserving postmodern fashion

Material Engagement Theory (MET) (Malafouris 2013), defined as the 'in-between' space of the mind and the maker, combines cognitive science and phenomenology to help open material culture by bringing it into the cognitive fold (Ibid, 2). Malafouris (2014, 146) constructs the idea of a 'hylonoetic space' to identify the continual dialectical collision between the mental and physical through a process of 'creative thinging' (Ibid, 145). This conceptualisation is helpful when encouraging a less 'materiality dependent' approach to conserving garments intended to degrade because the material is not tied to a single moment nor temporal order. The material is part of a 'creative thinging' process whereby the designer, material and degradation, over time, show the skills of the designer through

their material choices, the disintegration of the artefact being part of the creative process. Postphenomenology, a strand of the philosophy of technology introduced by Don Ihde (1995), is an emerging tool to analyse design research by examining the way fashion artefacts mediate relationships between humans and the environment (van Dongen *et al.*, 2019, 2, van Dongen and Toussaint 2020, 113). This combined theoretical approach of MET and postphenomenology is adapted as a framework for artefact examination and employed to identify 'material relationships' as a consideration to support a more holistic approach to conservation, one where the breaking down of fashion is acknowledged. The following three object studies highlight notions of pre-empting loss as a collection care approach illustrating the potential benefits in the temporal archiving of contemporary fashion.

4.0 Object studies

Three object studies emerged through dialogues with professionals in fashion collection care that each evidence different types of degrading material. The studies provide different approaches to examining aspects of degradation that can occur in 21st century postmodern fashion. The objects comprise a wild rubber dress by Vivienne Westwood and Andreas Kronthaler, c.2013, an example of an NCOL collected by the V&A, the 'ECCO' leather dress by Iris van Herpen, Radiation Invasion Haute Couture collection, collected by the Palais Galliera, spring summer 2010 and the Rootband #2 dress by Diana Scherer, c.2017 shown at the 'Fashioned from Nature' exhibition at the V&A. The artefacts question the current conservation paradigm in dress archives as practice-based artists and designers turn to nature and growth as potential source material and creative inspiration. These studies present new forms of postmodern materials and by combining MET and postphenomenological approaches to artefact-led analysis evidence how and why greater consideration of 'material relationships' between the museum user(s) and artefacts could support documentation of new conservation criteria based on designer intent, material and degradation.

4.1 Wild rubber dress by Vivienne Westwood and Andreas Kronthaler, c. 2013

Figure 1. Wild rubber dress by Vivienne Westwood and Andreas Kronthaler. V&A Museum, London. c.2013. (PROV.489-2019). Given by Lily Cole.

Image: ©Vivienne Westwood/Victoria and Albert Museum, London. 2013.

A wild rubber dress with a tulle skirt designed by Vivienne Westwood and Andreas Kronthaler for Lily Cole to wear for the punk themed Met Gala in 2013 was collected by the V&A as an example of fashion being naturally sourced and, in this case, relates to a social action project (Figure 1). The location of a dark brown stain is strikingly visible on the front of the bodice which creates discussion around material processes that represent environmental social action. Such representation is becoming part of fashion conservation and interpretive practice as museums begin to collect artefacts that show alternative approaches to material production, for example, fashion artefacts that show effective ways of utilising food waste products (Ehrman 2018, 171) which show the importance of naturally formed properties of postgrowth fashion. Examining the dress highlights other forms of material properties and qualities because the material is a product of sustainable rubber manufacturing processes demonstrating the wild rubber, harvested from Pará rubber trees native to the Amazon, is an 'intelligent material' (Entwistle and Townsend 2020, 294), for example, connecting natural material processes and developing socioeconomics with the body as fashion culture. The approach of archiving encouraged as part of this research, allows for and documents the biomaterials unpredictable change, for example, the occurrence of the dark brown staining. The dress signifies a design paradigm because of its biobased material and environmental stakeholders, including non-human actors, the Pará rubber trees, that contribute to the natural services that sustain the knowledge and culture of indigenous ethnic groups. It is supported by other bio-design initiatives. The Biological Atelier SS2082 by Amy Congdon, a speculative design project exploring tissue engineering, in design and production, reinforces the significance of fashion designers engaging with bio-based textiles to develop new 'tissue culture' (Congdon 2020, 138). This engagement explores high fashion possibilities that promote eco design-based approaches that reconsider the 'ultimate commodity' (Seed-London 2015). Another example of eco-fashion engagement is the concept of Biocouture (Kleiderly 2020), introduced by Suzanne Lee, which adopts the use of bacteria in the production and manufacturing of textiles for fashion, encouraging the value of composability as part of high fashion through societal and environmental change.

Degradation becomes interesting and useful when allowed to take its course, facilitating a more holistic approach to collecting and archiving bio-based fashion. Acknowledging stakeholders beyond the museum, for example, environmentalists, activists and social-action campaigners, has allowed the uncertainty of the condition of the dress to be managed and be reinterpreted. Henderson (2018, 109) introduces 'ontological uncertainty' as an approach in conservation to describe the benefits of the practice of not knowing to encourage an 'active uncertainty management' (Ibid) that avoids negative consequences by allowing for different stakeholders to critically assess the conservation of artefacts and the environments they are associated. This perspective helps with the practice of not knowing the continued disfiguration and the time the dress will take to fully degrade, making these aspects a feature of designer intent and expertise. Embracing the hybridity of the ethical formulae of a postfashion system through material engagement and a 'postconservation' approach creates a more responsive (and creative) practice for conservation, where even though destruction is inevitable it is a valued part of sustainable design discourse and practice.

4.2 ‘ECCO’ leather dress by Iris van Herpen, c. 2010

Figure 2. ‘ECCO’ leather dress by Iris van Herpen. Haute Couture, spring-summer 2010, Radiation Invasion collection. Palais Galliera, Paris. c.2014. (GAL2014.31.1). Image: ©Sylvie Brun, Palais Galliera, Paris.

Iris van Herpen collaborated with the company ECCO Leather to help create a dress made of natural coloured leather with semi-circle relief patterning made from boning for her Haute Couture, spring-summer 2010, Radiation Invasion collection (Figure 2). The object shows innovative use of eco-leather which is understood to derive from purely natural sources by following less toxic manufacturing processes, for example: reduction in chemical usage and wastewater production (ECCO Leather 2021). Samson (Alexandre Samson, conversation with author, November 27, 2019), Haute Couture and contemporary design curator, Palais Galliera, reaffirms the sculptural forms associated with approaches taken by the designer combined with the organic use of eco-leather connects Haute Couture to sustainable, holistic design practices. The artefact creates an interesting discussion because of its association with an eco-design system which focuses on the whole-life cycle of a product (Mora *et al* 2014, 139-147, Payne 2021, 114-116). Postmodern materials like the ECCO leather are emerging from anthropogenic influences in fashion artefacts which seems to acknowledge the benefits of the earth's ecosystems. Environmental scientists (Hobbs *et al* 2006, Mascaro *et al* 2013) argue that there are benefits in humans contributing to the direction of the ecosphere by creating new 'novel ecosystems' which have become permanent evolving features, offering holistic and realistic modes for ecological relationships (Kidwell 2016, 246 - 47). They 'can result from deliberate and inadvertent human actions which are not dependent on human intervention for their maintenance' (Ibid, 244). Conserving the ECCO leather may introduce ideas around transformative properties and qualities that supports the dispersion of the designer intent for the designer that embraces the eco-system and environmental impact. These considerations offer a more holistic and realistic idea of ecological engagement of current and future fashion cultural users. The artefact creates a form of fashion 'eco-literacy' (St. Pierre 2015, 33) that identifies eco-material properties and qualities as aspects that co-exist with protecting natural environments that are not cultivated or purposed, they exist to encourage growth, variety and evolving native species. Munõz (2005, 92) states '(…) conservation can be viewed as a manifestation of the ethical imperative of not lying.' This enables the conservation field to acknowledge and embody wider environmental considerations in which materials are manufactured in ethical, natural systems, thus accepting different approaches in caring for artefacts that support eco-design systems.

> 'Nature is a big part of my work. It's an endless stream of beauty. I like creating my own versions of it, trying to translate the logic behind the system that works so perfectly.' Iris van Herpen, 2020. Interviewed by Sebastian Jordahn, Dezeen. 2020.

Iris van Herpen uses Haute Couture to heighten material engagement between herself, her collaborators and design team through developing new, unexplored ideas to create different material qualities which often cannot be characterised because they are meta-physical. For example, van Herpen worked with Dutch designer Jólan van der Wiel to design the Magnetic Moon dress (autumn-winter 2013-14) by developing a technique using magnetic force to manipulate and texture polyurethane embedded with iron particles. This example is indicative of the approach taken by van Herpen towards postmodern materials, and the properties and qualities they offer, where hand, movement and feeling mutual joy during material engagement is part of the 'collection process' (Jordahn 2020). The use of the ECCO leather, brings new materialities because of the wider scope of environmental stakeholders which relates to collective responsibility and shared ownership in the ecology of eco-materials. Rethinking archival ontologies may become necessary if this shared ownership in material engagement is to be acknowledged, where the ECCO leather embeds values of sustainability and renewability.

4.3 Rootbound #2 dress by Diana Scherer, c. 2017

Figure 3 (left) Rootbound dress #2 by Diana Scherer. c.2017. Image: ©Leanne Tonkin.
Figure 4 (upper right) Detail of plant root material grown by Diana Scherer. Image: ©Diana Scherer.

Figure 5 (lower right) Upper back of Rootbound dress #2 by Diana Scherer. Image: ©Diana Scherer.

The Rootbound #2 dress by Dutch-based artist Diana Scherer in 2017 is grown from roots of plants to create a 3D textile and is an example of the potential of 'growing' fashion (Figures 3 and 4). Scherer (Diana Scherer, conversation with author, June 08, 2020) explains the interest in clothing and not fashion giving precedence to her harvesting process where she has developed a technique to control the growth of plant roots to make textiles. She uses a variety of plant seeds, for example corn, flax and beans, to create patterned materials with templates. When the roots are fully grown, Scherer removes them from the soil and cuts off the plant stems leaving behind an intricately patterned grass root material (Figures 3- 5). There is an essence of 'true materialism' (Fletcher 2016, 141) where artefacts, like this object study, acknowledges the scope of a 'material society' (Ibid) where availability of materials is environment-led supporting ideas for sustainable continuity in fashion practice. Postphenomenological thinking supports ideas that technologies cannot be understood as a priori, because of the continual shaping and reshaping by the designer through their practice (van Dongen *et al* 2019, 3). The Rootbound #2 dress demonstrates how fashion artefacts may introduce a less tangible fashion heritage because the designer engages with the complexity and changeability of ecosystems. This type of material engagement presents different considerations when documenting social and practical relationships between the designer, cultural user(s) and fashion artefact, therefore, creating different 'heritage-related emotions' (Vidal and Dias 2017, 27) by re-establishing historical values in caring for dress artefacts which have different contextual parameters. The Rootbound #2 dress may bring together shared values between the environment, human emotion (of the cultural user) and designer intent for a common good that encourages diverse and continuous material engagement. 'The cognitive life' (Malafouris 2018, 8) of the Rootbound #2 dress enables a presence that is not reliant on past connections with people and realities formerly attached to the values of an artefact (Vidal and Dias 2017, 27), but values what it presently holds for the cultural user, and designer. Displaying the dress could create a sense of a sustainable, hopeful future through emotional experience which may be considered a renewable asset of dress archival use even if the material is substantially altered or degraded.

Naturally sourced materials are starting to become important for designers to share in their work, as a 'material acknowledgment' of sustainable hybrid creative practice. At the same time materialising the designer concepts satisfies their creative desires. Conserving naturally sourced materials presents many changeable variables and becomes a 'knowledge-generating activity' (Hölling 2017, 88), where rationalising and contextualising the likely destruction of the plant root construction may be documented as part of an object record. The result being an archive of naturally sourced fashion artefacts that can be transmitted, transformed (through degradation) and lost; enabling analysis of issues of practice and experience that acknowledges fabrication of eco-materials as part of fashion heritage, that are part of the human condition (Ihde and Malafouris 2018, 209).

5.0 Conclusions: towards a postconservation approach for postmodern fashion

Postfashion systems may present different paradigms of museum practice because of wider environmental stakeholders and the acceptance of active materials as part of the creative process. The growth in new forms of fashion, such as human centred design, allows materials to take on many emotional and conceptual levels. Designer-use of multiple and decentralised processes is beginning to rethink design and material paradigms. For example, using film as a medium to (de)construct design ideas that exist as 'video-thought'

(Torres 2020, 281), exploring biosystems and computational abilities to hack manufacturing process to create new expressive materials showing 'intelligent mobility' (Winters 2020, 230) and 'lived experiences' (Sadkowska 2020, 86) that through; practice-based research that embodies the complexities of wearer relationships. These outcomes from practice-based research support translation, readaptation and reconstruction as a fashion continuum and not as an 'end point' (Calefato 2019, 41), for example, an end point that many fashion artefacts arrive at when conserved, researched and exhibited. The ideas can live beyond the life of the material.

The three object studies explore the various types of material engagement with postmodern materials in fashion artefacts. They show different types of material properties and qualities that require 'postconservation' thinking and practice, which may avoid limiting accessibility and interpretation to some fashion artefacts in the museum system. For example, biodegradation in fashion artefacts could be viewed as being a performative element of the material rather than an unwelcome property. Postmodern materials, as understood through the analysis of these objects, can be less reliant on traditional manufacturing techniques, they do not just exist as specific material types; they can environmentally decompose, be recycled and nurture creative design and artistic practice. This often means postmodern materials can be intentionally ephemeral supporting a circular fashion system. The objects show how designers and artists can design commitment to shared societal responsibility through material choices and creative practice, allowing the object to be part of advocating for more sustainable rights and provisions (Fletcher 2016, 241-2) of current and future cultural stakeholders of fashion artefacts. Documenting and conserving these artefacts do present different challenges for dress archives because there are no set protocols for these types of artefacts, therefore, 'epistemological uncertainty' becomes an asset when thinking about conserving material engagement of biodegradable, eco and plant grown materials. These materials do not have fixed properties and qualities, they are an emergent product from material engagement with the natural environment mediated by human and non-human factors, for example plantation growth, water systems and seed production.

A postphenomenological approach helps when examining and studying the objects because it introduces the ecology as a natural form of technology, whereby subjects and objects are the product of environmental and human relations (van Dongen *et al* 2019, 20). This means fashion artefacts can be environmentally and socially bound to other cultural uses and users, like the harvesting communities in the Amazon and designers like Scherer, who work with the eco-system as a natural landscape to build on their design and artistic practice. Conserving and interpreting eco-fashion practice and designer intent extends outside of the standards of a dress archive and textile conservation studio. Environmental materiality has been the intentional background for each designer and artist from which their material engagement is enacted (Malafouris 2013, 149).

Utilising a postphenomenological and MET informed epistemology, allows for sustainable postmodern fashion conservation. In addition, it allows new forms of interaction with the objects and their study.

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Appendix 8

Initial draft:

Tonkin, L., Townsend, K., Kaner, J., and Downes, D. 2023. Designer Intent: a postconservation approach to postmodern fashion. In: King, I. W., Schramme, A., and Verboven, N., eds., *Can Fashion Save the World*? Oxfordshire: Routledge. Forthcoming 2023.

2.0 Designer intent: a postconservation approach to postmodern fashion

1.0 Introduction: conserving the moment, authenticity in contemporary fashion

The use of postmodern materials in 21st century fashion artefacts create an ongoing archival challenge for many museums with dress archives. This paper identifies 'designer intent' as a way of evaluating authenticity in the conservation of fashion artefacts incorporating postmodern, transient materials and technologies. The term designer intent, in the context of this research, refers to the wearer experience the designer intends to create. This new approach to conservation supports the idea of a dress object's 'continual identity', a notion that connects different archival stakeholders to sustain the cultural value of postmodern fashion. Establishing the authenticity of a postmodern fashion artefact, from a curatorial perspective, is to represent the creative output of a designer at a given point in time, as accurately as possible.

The postmodern fabrications of contemporary fashion are the outcome of crafted relationships between bodies, technologies, and materials involving multi- and transdisciplinary approaches (Entwistle and Townsend 2020). Such fabrications, whether engineered or cultivated are challenging established understandings of material production, maker and user engagement by diversifying the traditional textile palette of the fashion designer. Fashion practitioners working 'at the edge' of the discipline have often sourced and created novel materials, surface details and finishes to subvert convention, attracting the attention of curators of dress as being 'culturally significant' and therefore collected, conserved as fashion history (Evans 2003). However, some of the most advanced materials may have transient properties, effecting the quality, hand and appearance of an artefact over even a relatively short time. Consequently, artefacts may quickly reach a point where the original aesthetic intention of the designer is no longer represented, sometimes leading to being isolated in an archive. This changes the artefact's ontological and material cultural value and meaning, impacting its conservation and interpretation within a museum context. The traditional reliance on the physical condition of an artefact by conservators may limit the scope of interpretive fashion practice, impacting access to 'pioneering and nonconforming [and potentially] rematerialized' items of dress (Sadkowska 2020: 67) through the engagement of future cultural stakeholders.

Within this research, Material Engagement Theory (MET) by Malafouris (2013) is employed as a conceptual framework for artefact examination, defined as the 'in-between' space of the mind and the maker. In addition, the author undertook the thematic analysis of a series of interviews with professionals in the field of fashion collection care, and conceptual fashion designers to accrue examples of current practice. MET and postphenomenology, a strand of philosophy that looks at the way artefacts mediate the relation between humans and the environment (van Dongen *et al*, 2019: 2), has been applied to identify material relationships (between designers, conservators and curators of dress objects) as a consideration to support a more holistic approach to conservation, one

where the breaking down or physical degradation of fashion is acknowledged. This is particularly relevant due to the increasing use of (sustainable) biomaterials within fashion. Evolving perspectives on designer intent and debates on the authenticity of fashion requires continual interaction between collections care and future users of collections. To develop this discussion around evolving experiences with unstable products and related archiving protocols, three object studies are discussed to support links between designer intent, postmodern material characteristics and aesthetic experiences between the artefact and fashion cultural stakeholder, as criteria for supporting the conservation of postmodern fashion artefacts. The selected artefacts particularly demonstrate the impact that polymer-based materials, often favoured by designers, have on the care of contemporary fashion. Studies of a duvet coat with a poly vinyl chloride (PVC) cover with a thermoplastic polyurethane (TPU) blend (de Sá 2017: 227) by Maison Martin Margiela, A/W 1999-2000, a kaleidoscopic perfectos dress made a photosensitive print by Kunihiko Morinaga for by ANREALAGE, S/S 2016 and a tailored coat with an aromatic polyurethane (PU) cover by Raf Simons for Calvin Klein, A/W 2017 are presented. Analysis of these objects informs new criteria to conserve and interpret 'authenticity' through various aesthetic changes and archival time scales. Degradation of the plastic materials on the Margiela and Simons ensembles, the digital translation of the ANREALAGE dress and the consequences of these shifting material relationships encourages reappraisal of the aesthetics of fashion artefacts. Conclusions reveal the need to rethink the role of archives and dress conservation suggesting a 'postconservation' model to support a 'postfashion' system, which re-evaluates how we create, conserve and value emergent forms of material culture.

2.0 Designer intent and authenticity

The idea of designer intent and authenticity relating to fashion artefacts is an unfamiliar and undefined concept within conservation. The term 'authenticity', along with identity, values and interpretation, relating to the various disciplines of conservation has been thoroughly dissected and re-evaluated over the last two decades to help create more sustainable and axiological approaches in caring for mixed and multi-media cultural artefacts (van Saaze 2013; Wharton 2015). Authenticity and intent are acknowledged as being intertwined and performative elements through the continual existence of the material. '…issues of authenticity in conservation are better served by thinking of the debates in terms of conceptual, aesthetic, or material authenticity rather than a semiotic construct based on aims and context alone.' (Scott 2015: 294). This interrelationship is affected by different cultural stakeholders, like collection care staff, viewers of the artefact and others. 'An object's journey involves multiple interactions and multiple values, and its authenticity is created by viewers via their own individual relationship with the object. It becomes an individual concept understood through many layers of knowing, certainties and uncertainties.' (Sweetnam and Henderson 2021: 4). Experiencing the material is becoming a recognised form of interpretation that helps construct meaning in conservation practice (Llamas-Pacheco 2020: 5) that allows for the elements of authenticity and intent to become less materiality dependent when documenting and conserving an artefact.

Contemporary fashion is subject to retranslation through the processes of acquisition, examination and display, despite not undergoing any physical or aesthetic change. The link to the designer remains an important transferable asset towards the 'new translation', making the artefact distinguishable, valuable and sustainable in fashion collections by

embedding a constant cultural meaning that continues to socialise the work of the designer. 'Fashion, with its affinity for transformation, can act out instability and loss but it can also, and equally, stake out the terrain of 'becoming', new social and sexual identities, masquerade and performativity' (Evans 2003: 6). The notion of designer intent can become paradoxical when combined with a cultural landscape because of the change in context in which the artefact was created. The 'material consciousness' (Malafouris 2014: 149) of the designer through their creative process can be reappreciated by cultural heritage stakeholders who collect artefacts that represent the materialisation of the creative ideas of the designer in a specific time and place. Often the value of intent resides with the direct link to the designer based on reputation but is still subject to institutional interpretation and (artefact) expectations. The designer's use of postmodern materials can impact these institutional values because they 'archivally act' differently to traditional textiles (e.g. wool, cotton, silk) because of their distinct material characteristics and instabilities (e.g. 3D-printed composites) and, therefore, challenge traditional archival parameters. This shifts the paradigm of 'materiality dependent' values in dress conservation and calls for a new approach to fashion artefacts made from postmodern materials which (sometimes unexpectedly) change or are dependent on technological iterations in the future. The dynamics inherent within postmodern material properties can therefore change the originality of a design, as captured on the catwalk or in the media, broadening the meaning of designer intent.

Postmodern materials offer unlimited opportunities for designers to explore, experiment and push beyond conventional textile forms, introducing unpredictable and surprising aspects into their creative process. This freedom of artistic, creative expression is crucial to fashion design and the need to form a reciprocal MCT that will expand and support this area. Material Engagement Theory (MET) acknowledges the 'constant search' to identify a 'true vision of things' (Malafouris 2013: 52), there is no fixed perception of material engagement, it is an enabler of awareness, interpretation and understanding of the elements being investigated. MET identifies a paradoxical situated phenomenon of objectivity relating to the subjectivity of human experience and when there is a shift towards objectivity there is 'less attachment' to a specific quality of a material, in fact, it distances our perception of the 'true vision'. In other words, a desire to capture originality as the moment of creation, only represents a single version of what the maker was experiencing at the time.

'…intentionality is construed as a strictly internal phenomenon of human consciousness with no counterpart in the realm of things.' (Malafouris 2013, p. 137).

As such, MET encapsulates the designer's philosophy while the term designer intent represents a snapshot worthy of documenting at the time of acquisition, and is an indeterminable point of authenticity, a mobile concept that allows multiple viewpoints to co-exist. This type of fluid documentation steers away from an isolated, fixed representation of designer intent towards one that is transferable to a wider range of fashion uses and users.

3.0 The characteristics of postmodern materials

Identifying the right moment to collect a designer's work is part of the authenticating process for museums. Curators sometimes follow patterns of influence and timing in a designer's career that shows uniqueness or reflects significant trends that resonate with

the fashion press and public. For example. Iris van Herpen's snake dress from her Capriole collection, A/W 11/12, as worn by the singer Björk for the Roskilde festival in 2012 (van Herpen 2021), catapulted this distinctive style specific to the designer. The dress was subsequently collected by the dress curators at the V&A as an iconic artefact of fashion heritage. These moments make the design worth collecting by curators, they become important material anchors, acting as distributed cognition in supporting these choices, perceptions and priorities (Malafouris 2013: 67, 72). 'Material signs' (Ibid: 117) such as those moments that for no reason capture our imagination, can be read and enacted to substantiate the 'aura' of a garment, elevating it as a collectable clothing concept. A catwalk presentation provides a translation of the designer's work situated in seasonal formats, thematic performances and a series of individual, connected looks, which are often presented as physical arrangements (Entwistle and Rocamora 2006: 744). The curator often engages with this presentation as a key event in identifying moments of fashion heritage to collect and conserve and is often part of a spatial, temporal and experiential occasion that acknowledges social relations between actors in the fashion system. When a curator selects a look from the catwalk this could be acknowledged as a 'material sign' that has emerged from the various parameters of the catwalk performance. This is part of a fashion engagement process which occurs when the 'material sign' initially engages the curator through epistemological rather than a hermeneutical action (Malafouris 2013: 117). The curator has meaningfully engaged with the look before any actual historical meaning has emerged. Kate Fletcher (2019: 49) helps describes this 'fashion moment' as 'an electric experience, unpredictable, unschooled, emergent'. Within that moment are attempts of sense-making, a possibility of historical meaning, as a 'temporally emergent property of material engagement' (Malafouris 2013: 117) between curator and the fashion look. When the artefacts are selected through the decision of the curator it enters a heritage landscape to undergo 'museumisation', where it is transformed into the confinement of an archive (Calefato 2019: 38) and it is here in the museum that a sense of cultural identity and representation is realised within a historical setting. This recontextualisation prestiges fashion artefacts that become 'denuded of any dynamism' (Ibid: 39) in becoming an active part in fashion history which causes the museumisation of 'designer intent'. The action of curatorial selection can 'provoke a disconnection between preserving the design and the original Designer Intent (Tonkin 2017: 165). Working with the designer, their house and the acquisition process can be curatorially driven which creates further disconnection; the notion of authenticity becoming materially bound to the conservator dependant on curatorial advice and interpretation. This situation can be limiting and in relation to fashion artefacts constructed from transient materials, through a lack of mutual understanding and disparate motivations between the curator and conservator. And while cutting edge fashion designers such as Kawakubo, Chalayan and Margiela have explored 'dereliction' and 'patina' as artistic strategies (Evans 2003; Verhelst and Debo 2008), in conservation there is no recollection of the 'numinous' quality the artefact (Clavir 2002: 30) has collected since its inception and catwalk appearance. Material authenticity is the main priority for inclusion and survival in the archive, increasing the cautiousness in gaining knowledge and understanding of unknown material trajectories. Contemporary fashion shows refer to the situation of collecting artefacts, is a 'social construct' (Clavir 2009: 139) of cultural significance. In interviews with Edwina Ehrman, independent dress historian (and former senior curator, fashion and textiles, V&A), Alexandre Samson, curator, Haute Couture and Contemporary Design, Palais Galleria, and Kaat Debo, director and chief curator, ModeMuseum (MoMu), Antwerp (Oct-Nov 2019) reflected on how subjective and risk-taking acquiring fashion can be and identified the challenge of the right time to capture that design moment. Ehrman (2019),

reaffirms timing is crucial, '…we often don't get the designers at the right stage in their careers. We wait too long.' This highlights the narrow window and language fashion artefacts are often translated through. In conserving the authenticity of fashion, conservation needs to consider the subjective nature of the acquisitioning process and the variable criteria which affect the decisions around product durability and cultural value in relation to postmodern fashion artefacts.

3.1 Authenticities and postmodern fashion artefacts

Conserving the authenticity of fashion brings with it debate. The pristine, as new, condition of a dress object is often perceived as its original condition when it was made. Recently, this approach has been considered as too objective and scientifically determined, creating a fictitious aim to follow a 'truth-enforced operation' (Muñoz Viñas 2005: 81). Personal choice, or subjectivity can also be employed to determine the material authenticity of an item, enacted through engaging with the artefact through conservation practice (Muñoz Viñas 2020: 29). Material engagement between the conservator and the artefact can be complex, and the process of engagement is often not documented, the preferencing of perpetuity being the most valued outcome of conservation (Henderson 2020: 10). Attempting to conserve postmodern fashion encompassing transient properties with a view to longevity can be a rigorous and resource rich task. The freshness and newness of a fashion artefact are elements that can be reinstated to a degree through physical intervention, repair or reproduction (Morris and Keneghan 2011: 111-17). However, these acts of simulation do not reverse the 'signs of time' (Verhelst and Debo, 2008) nor do they return the artefact its moment of inception. The artefact has undergone various changes, both physical and conceptual, through acts of performance, merchandising, wear and conservation, after the designer's intention has been realised, gathering different authenticities. The future authenticity of fashion artefacts may be considered as temporal moments of material engagement where museum staff recollect and reinterpret designers work knowing that elements of the artefact have or are expected to change with time (Hölling 2016: 17).

4.0 The aesthetic experiences of postmodern materials

Postmodern material properties and qualities, like those found in fashion artefacts entering the cultural landscape, reconfigure aesthetic expectations. For example, 'when polyurethane (PU) materials become part of museum collections, degradation problems emerge, and in a short period of time PU starts to show its inherent material instability' (de Sá *et al* 2014: 195). And in a similar vein, 'new materials in art may involve the risk of creating a work which, due to material problems, deviates immediately after its creation' (Jadzinska 2016: 189). While 'fashion' constantly reinvents itself, so is transient in terms of its conception, there is a paradoxical, cultural expectation that it's physical outcomes should remain fixed. As a result, conservators are pressured by the instantiation of fashion. The expectation for beauty in fashion is high and is an inherent property of aesthetic value which is subject to constant change and differences in interpretation. Joanne Entwistle states in her essay 'The aesthetic economy: the production of value in the field of fashion modelling' (2002), 'Aesthetic economies have their own particularity. They are more nebulous since at first glance they seem far more 'subjective', immaterial or effervescent and thus far less 'stable' (Ibid: 321), and 'qualities of aesthetic content change, as any history of art or design illustrates'. These ideas are reflected in a postmodern cultural era that has influenced fashion through the emergence of wider and more inclusive

understandings of aesthetic appreciation 'through its rejection of tradition, its relaxation of norms, its emphasis on individual diversity and its multiplicity of styles. The result was diminished shared meanings of styles' (Tseëlon 2016: 220). Contemporary designers working with state-of-the-art materials can present challenges to professionals in fashion heritage who have the responsibility to conserve and interpret the aesthetics of their work to a wider cultural community. This potential scenario can influence a museum's decision not to acquire an item, selection for display or subsequent archival treatment, even if the artefact is in good condition, based on material properties (Samson 2019). Pre-empting changes in a fashion artefact based on material-led values, therefore creates barriers leading to the isolation of particular substrates due to potential loss of aesthetic agency (Malafouris 2011: 126).

Towards the development of the MET, Malafouris produced an essay on 'The aesthetics of material engagement' (2011: 123-139) which explores a less epistemological approach to reimagine 'our aesthetic presumptions, in the common sense of taste and beauty' which 'can be a great obstacle when examining the aesthetic agency of things or artworks' (Ibid: 126). This approach helps the effectiveness of developing a material conservation theory (MCT) for postmodern fashion artefacts because it appreciates a wider and more inclusive understanding of aesthetics as recognised through the evolvement of style in 'the postmodern stage' (Tseëlon 2016: 220) of fashion. Malafouris (2011) encourages 'a situated aesthetic approach' that enables different forms of aesthetic experiences to exist and to be inhabited to achieve fuller, wider and extended material engagement from an artefact (Ibid: 126). A MCT that acknowledges this new ontological basis as a way of engaging with aesthetics helping to prevent fixed, and somewhat, unsustainable notions of aesthetics in fashion conservation and interpretive practice. MCT could support ideas that work towards a more sustainable model in the archiving of postmodern fashion that accepts material change as integral and interpretable characteristics of postmodern materials. Introducing this new approach may enable wider aesthetic beliefs to co-exist with changing materials that could extend the aesthetic life of an object. A recognition in the aesthetics of material engagement, as explored by Malafouris, could involve different levels of material analysis, definitions, classifications and, therefore, discussions within the collections care of fashion artefacts that recognises 'the temporal dynamics' and 'embodied aspects of aesthetic experiences' (Ibid 127). The designers, their teams and assistants have actively engaged in creating the aesthetic appeal of a fashion artefact. They have contributed to what could be considered an 'act of embodiment' (Ibid: 131) sharing experiences and conceptions of the artefact with different audiences an act of 'embodied aesthetics', a term that describes the metaphysical distance between the experiences of aesthetics from other senses reliant on vision, hearing and listening (Montero 2018: 892, 899). This encourages less focused engagement with the original aesthetic of an artefact as experienced by the curator during the catwalk show, to one that can be shared and reflected upon by diverse cultural users.

Jo Cope, a conceptual designer, expresses how she actively engages with materials through her skills in cordwaining, which provides some insight into her aesthetic experiences that may be considered as 'embodied aesthetic' practice.

> 'What's really interesting about the material, it's like I allow myself to imagine whatever is [present] in my mind's eye, I have to work out how I make [the artefact]. And I really like that approach. It's hard because I'm starting from scratch every time. Sometimes, it's like, I've got to find a new way of working, [therefore]

> I've got to find a new material. (…) Things like leather can create that stretch and relate to skin, can become seamless. I'm extending traditions. But I'm making materials do things that they're not necessarily meant to do. And each time the challenge [is thinking] I don't know how to make it, but I'll find a way of making it. And then I work through the materials.'
>
> Jo Cope, conceptual fashion designer and artist, UK. 2019.

Designers like Cope, want the wearers of their creations to relate to the mental and physical artisanship involved, metaphorically and practically, by delivering a heightened experience which may involve dynamic new materials. In constructing a 'situated aesthetic approach' Malafouris describes an aspect of this approach of 'enactive discovery' (Malafouris 2011: 130-31) that acknowledges the 'act of embodying' as 'situated praxis as a trajectory of material engagement' (Ibid: 131). Specifically, the mental and physical stages of creative practice are intertwined and inseparable and cannot be represented as a fixed end-product. Through an 'enactive discovery' approach different aesthetic connections could allow for fashion conservation and interpretation to transcend from the immediacy of the original aesthetic of the fashion artefact. Kate Fletcher (2016) acknowledges that aesthetic obsolescence is the main product of contemporary fashion that becomes enmeshed in changing social and cultural conditions. The notion of '…aesthetic (changing appearance renders existing products obsolete) and 'In the fashion sector the primary, though not exclusive, tool of obsolescence is aesthetics.' (Ibid: 194). Cultural investment in keeping alive the original aesthetic choices of contemporary designers raises challenges for postmodern materials entering established practice in fashion conservation. On the other hand, cultural investment could raise other possibilities that the high skill sets and talents of fashion conservators, novel testing systems to help support practice, problem solving, decision-making processes and ability to deliver exhibitions en masse, can be redirected to a postconservation model. One that does not present fixed illusions of aesthetic engagement.

5.0 Object studies

The following object studies help illustrate and combine ideas of designer intent, postmodern material characteristics and aesthetic experiences between fashion artefacts and cultural user(s). These criteria help consider and support the conservation of postmodern fashion artefacts through the impact of collecting polymer-based materials and their instabilities which often presents challenges to dress archives.

5.1 Duvet Coat with a poly vinyl chloride (PVC) cover by Maison Martin Margiela, A/W 1999-2000

Object Name: Duvet coat. Mode Museum (MoMu), Antwerp, Belgium. *Attribution:* Part of the Maison Martin Margiela 'artisanal' line of the 1990s attributed to their white phase of design (Figure 1). *Description:* Soft white duvet jacket filled with feather down with a separate transparent plastic cover. *Materials:* Cotton and down-fill (duvet), poly (vinyl) chloride (PVC) and thermoplastic polyurethane (ester) (TPU) blend (transparent plastic cover) (de Sá, 2017: 227-8). *Condition:* Significant yellow discolouration caused by photodegradation (Figure 2).

Designer intent: The PVC and TPU blended cover has undergone significant discolouration and is far removed from its original white concept as presented by Margiela in 1999 (MMM shows 2020; Verhelst and Debo 2008: 9-10). The spectrum of changes from the original white design aesthetic creates a sense of loss in value and aesthetic forming a

distance between the designer and the artefact influencing its translation and configuration of the past practices of Margiela. The yellowing could be considered an unexpected 'material sign' changing the direction of fashion interpretive practice to one that builds on ideas around authenticating the discolouration. This type of material engagement offers active and transient engagement through exploration between the cultural users and current and future conditions of the artefact.

Material relationships: The changes that have occurred to the plastic cover go beyond the original intentionality of Margiela because 'things cannot exhibit intentional states' (Malafouris 2013: 137) and have become parts of the material authenticity. Caroline Evans (2003) uses concepts of 'Now-Time' (Ibid: 293) to include elements of 'unexpectedness, ephemerality and mortality' and 'Spoiling' (Ibid: 307) to recognise 'abjection, alienation and decay' as notions that actualise engagement with artefacts and their environments. Similarly, cultural environments, like MoMu, could consider the yellowing of the cover as a mediator between their museum users and the material properties and qualities as an ethical and honest way to conserve and interpret the changing PVC, TPU blended duvet cover that culturally contributes to fashion as a subject of 'modernity and post-modernism' (Evans 2003: 304). This approach offers different material values to emerge, providing cultural stakeholders with a sense of the 'true materialism' (Fletcher 2016: 140) of the duvet cover. Showing 'a deep appreciation and respect for intrinsic material qualities' (Ibid: 140) of postmodern materials that encourages MoMu's gallery spaces to be 'a truly material society, where materials and the world they rely on are cherished' (Ibid: 141) keeping the duvet coat 'a true point of pride' (Samson 2018: 86), an important link to the contribution of Margiela to postmodern fashion culture.

Aesthetic experiences: Salvador Muñas Viñas (2005) positions aesthetic enjoyment as relative. 'It is not aesthetic enjoyment what is expected, but a different experience' that people expect when engaging with an original artefact (Ibid: 84). The effects of the degrading duvet cover can be viewed as creating aesthetic relationships between the artefact and the attention of the viewer placing emphasis on the notion of 'attentional values' for the cultural user (Llamas-Pacheco 2020: 4). Identifying the existence of these interrelationships acknowledges 'it is not the object alone that carries the artwork' (Ibid) but the continual aesthetic experiences of the duvet cover.

5.2 Kaleidoscopic perfectos dress with photosensitive prints by ANREALAGE, S/S 2016

Object No: Dress made of kaleidoscope perfectos with photosensitive prints. Palais Galliera, Paris, France. *Attribution:* Ready-to-wear collection, by Kunihiko Morinaga, REFLECT collection (Figures 3 and 4). *Description:* Short cream dress made from six motorcycle jackets. *Materials:* Cotton canvas coated with kaleidoscopic inspired pattern made visible with a camera flash. *Condition:* Yellow discolouration has occurred on the outer surface.

Designer intent: The kaleidoscopic inspired pattern on the dress is viewed using an iPhone with a flash. This digital-material interface is an 'embodied and situated' (van Dongen *et al.*, 2019: 2) experience for the curator who employs a postphenomenological approach through mediation between artefacts, human experiences and the environment (van Dongen and Toussaint 2020: 113). The roles of human (the conservator, curator and owner/ wearer/ viewer) and nonhuman (the iPhone) are technologically bound and essential for recording, archiving and interpreting, creating different anthropological

histories and 'embodied practices' (Ihde 2009: 42; van Dongen *et al.*, 2019: 1) of fashion artefacts. The realisation of the artefact's visual and material qualities as intended by the designer are reliant on the application of digital technology. The notion of immediacy and temporality in fashion becomes apparent because of the 'cognitive demands' on the user (Howells and Negreiros 2019: 332) to view the decorative patterning of the dress. These elements are part of the designer's creative process where activating peoples' desires and emotions is key to the experience of fashion

Material relationship: The digital method to comprehend the patterning of the material to enact curatorial decision-making about a moment in design history, a moment that is a sign of contemporary collecting could be useful for a conservator to document. Identifying different levels of the material characteristics could be part of the future care of the dress. Tim Ingold (2007) highlights the importance of material qualities as central to creativity, '…it is not only the properties of materials that an artist or craftsperson seeks to express, but rather their qualities' (Ibid: 13). This consideration extends the conservator's remit of understanding postmodern materials by conserving the objective and subjective responses to the artefact. The dress exemplifies the need to develop new, more open approaches to conservation and curation that mirror the responsive nature of the artefact as a digital social phenomenon, rather than storing something lifeless (Calefato 2019: 38).

Aesthetic experiences: Recording the experiences of the catwalk show could see contemporary fashion artefacts exist as an idea without the need for continuous materialisation (Llamas-Pacheco, 2020: 8). Similar concepts are being explored in fashion design theory where the relationships between 'products and attention' through seasonal changes acknowledge the role of ongoing and intertwined narratives (Roubelat *et al* 2015: 8). Documentation could engage within the digital realm developing practices in design conservation and interpretation beyond the physical materiality of the artefact. This would make the dress a phenomenologically transparent object (Colombetti 2018: 583), whereby experiences of the ANREALAGE dress by participants, as consumers or viewers, could be documented as material-digital narratives as part of the authentic state of the dress.

5.3 Tailored coat with clear plastic cover by Raf Simons for Calvin Klein, A/W 2017
Object Name: Monochromatic tweed coat with clear plastic cover. MoMu, Antwerp, Belgium. *Attribution:* Ready-to-wear Raf Simons for Calvin Klein (Figures 5). *Description:* Long double layered coat with separate clear plastic top layer. *Materials:* Wool (under coat), aromatic polyurethane (PU) (plastic cover). *Condition:* The PU is showing signs of clouding/whitening making the clear plastic opaque (Figure 6).

Designer intent: 'When ready-to-wear fashion becomes part of a museum collection, most of the previous assumptions change, these garments gain a new form of authenticity' (de Sá 2014: 199-200). The ensemble could not be presented for exhibition because of the risk of further damage to the PU cover. Stabilising and maintaining the authentic state of the material becomes reliant on conservation strategies, for example, the decision not to exhibit because of the risk of further chemical reactions to support the status of the artefact. Conserving the authenticity of designer intent of the Simons ensemble could shift the paradigm of documentation because of anticipated and quickening change in the PU material. Diverse forms of documentation may become essential and could include notions of a 'continuity through change' (Hölling 2015: 88), a term used to document ongoing changes in components in multi-media artefacts in archives, to replace fixed ideas of authenticity.

Material relationships: In this case, replacing the plastic cover may not be a viable option because the designer, Raf Simons, and his team no longer design for Calvin Klein. The ensemble is part of Simons' debut collection for the house and signifies a place in Belgian design history which was epistemologically collected by Debo as part of the collection policy for MoMu. Contemporary fashion collecting, like the Raf Simons fashion ensemble, made with a component from postmodern materials likely to change, would benefit from a model of 'continual identity' to support design histories that will otherwise risk not being collected or be lost to an archive.

Aesthetic experiences: The visual, chemical and anthropological changes in the PU cover connect those transcending ideas of Simons, as enmeshed and related aspects of the designer's material choices. This transitional aspect of designer intent can be aligned with cultural uses and users, whereby the material engagement is not representational but embodiment relations (Ihde and Malafouris 2019: 205). The viewer is free to engage with the changing material properties and qualities of the PU where aesthetic experience becomes 'a quality of mind rather than of object and things', becoming a part of sense-making (Arteaga 2017: 2) allowing the (re)conception of degrading and changing postmodern materials. Acknowledging different approaches to experiencing aesthetics, instead of static understandings of aesthetic objects, may encourage a more active material engagement where aesthetic processes evolve, progress and live on display. This is part of the plastic's material authenticity, supporting the notion of 'continual identity' with fashion artefacts where expected and unexpected material changes may not hinder any 'exhibition value'.

6.0 Conclusion: towards a postconservation approach

Postmodern materials present new considerations for dress archives that support fashion heritage. Exploring an ontological approach, whilst utilising a postphenomenological and MET informed epistemology that supports a theory of 'continual identity', may help diversify and extend stories of the designer and their choices in postmodern materials. Developing broader definitions of material aesthetics and how they are experienced may recognise the existence of closer engagements with 'the real nature of the phenomenon' (Malafouris 2013: 53) which acknowledges the temporal dynamics and embodied aspects of aesthetic experiences. This approach shows a commitment to relational ontology, where humans and artefacts are inseparably linked (Ihde and Malafouris 2019: 201). Alternative forms of documentation, including that of a MCT, may support ongoing ideas to conserve and value postmodern materials and fashion as a cultural asset. The MCT (as evidenced with the object studies) would recognise the intangible aspects of fashion artefacts, like designer intent, material relationships and aesthetic experiences, as conservation paradigm which acknowledges 'continual identity' as a valued and sustainable 'cultural currency' (Fletcher 2016: 142). These considerations help reposition notions of authenticity in contemporary fashion. When 'revealing the material core' (Malafouris 2013: 12) through its changing material circumstances (degradation, physical breakdown) it becomes an active source of material culture recognising the important moment, material choices and modernity in fashion history the artefact derives. Contrary to the 'assumption that there is a fundamental good in prolonging the existence of cultural property' (Henderson 2020: 10) extends 'continual identity' to others widening the benefits of the artefact. A suggested postconservation model may consider the aesthetic desires of the designer, the museum stakeholders and users of fashion artefacts as 'creating platforms for envisaging fashion futures with a diversity of voices' (Fletcher and

Tham 2019: 44), creating new documentation of the designer intent which will add to object records, the object itself and encourage a more people centred approach (Giliberto) to conserving dress archives.

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Appendix 9

Plenary talk presented by the author for the Institute of conservation (Icon), UK.

Forging ways forward through the fear factor – Leanne Tonkin

Icon19 Belfast – international triennial conference

Introduction

So if you are thinking, oh, she put herself as a plenary speaker because she is the Programme Chair – you'd be absolutely right in your thinking. I did not intend to speak at this conference, I am only just getting into a position where I can start to submit ideas for presentation from my doctoral studies but I decided to do this presentation as a plenary talk because of a question I was posed very early on in the organisation of this conference which I will explain at the end of my talk.

My professional experience as a conservator stems from graduating from the Textile Conservation Centre in 2009 and I went on to take up conservation positions in the UK and the USA. Ten years on from graduating with strong evidence of hard work, publications and project work the offer of any worthwhile employment opportunity in conservation in the UK is very low to nil. The last interview feedback I received was 'I was too high-ranking a conservator' to be employed by that institution. I was left thinking where do I go from here because I certainly do not feel high-ranking that's for sure. Even relevant work of ten years of technical skills accumulated in the fashion industry seems not to hold any value at the point of decision-making for employment. And I do find this situation quite 'odd'.

I am sure this perspective is shared amongst many of you here at this conference and beyond, that spending many years of building up a great professional portfolio after much financial commitment to train in the conservation field, and then to realise there are limited opportunities to continue to work in the field, it does not come as a surprise to learn people give up applying for conservation positions, like myself, when it becomes no longer financially viable to continue to pursue these opportunities and the lack of stability in the workforce is no longer conducive to my family requirements (certainly the stage I am at in my life).

This afternoon I will present a personal trajectory focussing on the some of the successes and challenges of my changing role as a textile conservator from a working-class background in the UK, after leaving an extensive professional life as a commercial fashion

designer before my conservation training. The main aims of the talk will be to present a reflective account of the professional circumstances I have worked through leading to discussions on the impact of differing perspectives and managing diversity in cultural and heritage organisations. I will conclude with, not a summary but a rationale on the meaning of diversity.

Decisions on becoming a conservator

Why did I consider being a conservator?

I didn't want to be a conservator. I didn't want to particularly work with my hands. Nor would I consider myself an introvert with a focus on detail. On entering the conservation profession, I had a good technical appreciation of fashion design and a good understanding of the commercial viability of product design. I had good, well-bred creative skills from a business perspective. Connecting to the past, yeah, I can see I was kind of attracted to that aspect of conservation and working with old objects seemed appealing because often my design work would connect with historical references and major fashion exhibitions were a source of inspiration for designing collections. I had lost both my parents by the time I was in my mid-twenties so connecting to memory and experiencing change were familiar emotions to me and had become an important aspect of my personal survival and professional drive. I came to museums and conservation through a veil of ignorance where I did not have any particular expectations about the working environment nor the people who I would be working alongside. My discovery of textile conservation was through natural chance and I thought this sounds interesting and would be an opportunity to transfer and develop my design skills in a rewarding and specialist environment. I was excited to be leaving a profit-driven industry despite all the great opportunities and colleagues I worked with, to start something new but related to my professional repertoire.

I began with an MA in the History of Textiles and Dress at the TCC only to realise I had committed to an industry of low pay and limited professional opportunities. I was shocked by this, more over by the acceptance that this was the status quo. I stayed to complete an MA in Textile Conservation thinking employment opportunities may widen and I have to say I never felt I fitted in during my training at the TCC, I did enjoy the practical and academic aspects of the course and it is these assets that continue to be transferable during my academic career.

As the course ended, internships became available and several of us were successful in securing these placements. I couldn't help feeling the selection process of the candidates

by the advertising institutions contributed to a plotted landscape of the conservation of cultural heritage where selecting candidates was based on a 'fits in' criteria. There seemed to be a preference on 'relevant personality' rather than 'relevant professional background'. In these circumstances, the concept of diversity seemed to be a rigid one in conservation which did not mean a variety of perspectives and approaches that often represent different identity groups who bring different 'things' to the table. This was one of my initial insights into one of the social limitations of the field that I was entering into.

Reflections, observations as a practitioner

My conservation experience derives from a wide institutional perspective from local authority to the one of the most influential museums in the world. These professional experiences varied drastically from some of the most rewarding moments to some of the most disappointing encounters I have experienced as a 'professional'. My hands-on skills developed rapidly in my first job due to my hard work and the supervision of an experienced conservator who helped pragmatise my training. I started to develop a good material knowledge and environmental understanding of working with collections in a museum environment, and boom, my interest and practice in the modern and contemporary area of conservation started to emerge providing context to my growing skills and knowledge.

I realised my 'independence and enthusiasm' was observed as a negative strait by a couple of my supervisors and, again, I found this quite odd. Surely this was an attribute in promoting departmental contributions and widening perspectives, that bring in different strengths and knowledge bases? It seemed my previous professional experience had not registered with my supervisors, nor was it understood, nor was it valued, I was treated like I was starting from scratch as a professional every time I began a position in a museum. I started to get a sense that only a 'certain type' of personality is understood in the conservation sector but also, if you challenge this conformity you cannot conserve!

I have been exposed to some of the most remarkable collections yet surrounded by some of the most controlling of attitudes, one instance I was involved in was working with a conservator who had never been allowed to work on objects due to curatorial control this resulted in the conservator building no pragmatic skills in the 15 years they had been working for the institution. This was the most extraordinary working environment I had been in where an institution could allow a situation like this to happen. The manner in which I was spoken to and treated at several institutions was sometimes inappropriate and I

wondered ‘what on earth is happening here?’ This caused me to feel awkward about the decisions I had made entering the conservation profession because of the assumptions made by supervisors that I was inexperienced professionally and in life in general. I did stand the line with these individuals which resulted in warnings and reprimands but standing your line seems not to work in the general sense as there was simply no management criteria to cope with the situations due to hierarchies in the institutions. Brushing it under the carpet was key to moving on. I certainly didn’t bank on these situations in entering a profession of conserving cultural heritage that represents all dynamics of human endeavours.

No one has the right to own all knowledge of cultural property and surely, different perspectives in conserving these objects/buildings is paramount for diverse and inclusive thinking to take place and to enhance expertise and specialist contributions for a sustainable and wide future in conservation. The AHRC Strategic Delivery plan for the next 5 years, which was published on Monday, states, ‘The way in which research is undertaken can itself be a barrier to social inclusion’. The AHRC is spearheading initiatives, for example. ‘Connected Communities’ which challenges researchers to rethink their methodologies, their language and assumptions in the co-creation and co-production of research with communities denied recognition and agency.

Different perspectives

There are many different perspectives on identifying diversity and what it means and what is required to achieve this in the staffing of cultural institutions. Reports published by The Guardian, National Museum Directors’ Council, the Royal Society for the Encouragement of Arts, Manufacturers and Commerce, Create London, Andrew W. Mellon Foundation, The Arts Newspaper and the Institute of Conservation are some of the contributors to the debate on diversity in the arts. And these reports recognise museums and heritage sectors are the least likely to attract people from working class backgrounds and addressing the situation will require substantial structural and cultural change within the arts. A whole host of social media platforms have emerged to help share views on social integration in the heritage sector: ComplexWales, Museum as Muck, MuseumDetox and MuseumHour to name a few. And of course, the Museums Association and Icon are highlighting ways to help widen paths to draw in a wider interest from job seekers.

And as one of these platforms state *'diverse educational pipelines into curatorial, conservation and other art museum careers are going to be critical for art museums for true diverse staff and inclusive cultures'.*

I grew up in a tough working-class environment and I am in no closet about my routes. It is who I am. It's interesting to gain perspectives of me in the field from conservation colleagues whilst working or acting on behalf of conservation. I have received comments either in writing or to my face, you are 'a strong character', 'intimidating', 'a little frightening at times', 'unstable', a 'non-specialist'. It's important I share these perspectives of me to help you appreciate the 'feelings being expressed' by my colleagues because it is something tangible to work with because these perceptions do not emerge from a veil of ignorance in which I arrived through when starting my heritage sector career.

The veil of ignorance forms part of the theory of justice whereby justification stems from an original agreement in a situation of equality, therefore it is reasonable to accept that no one should be advantaged or disadvantaged by their circumstances in the choice of principles. In other words, no one's perspectives, or persona is more important than others based on social circumstances whether that be privileged or not, and as Complex Wales once stated through a twitter feed 'that's where the problems set in when people think their views are more valued than others' because they come from an advantaged professional position. There seems to be few principles of justice when accepting 'different personalities', therefore, 'different social values' into the conservation field. I feel there is a resistance to strength of character, adaptability, difference and change.

Expansion of management skills

So how can we manage diversity? I'm no expert but do have extensive experience of working with diverse personalities in a creative environment. An ability to negotiate different personalities seems key. There's lots of literature describing thoughts on the distinction between being 'inclusive' and 'diverse' within an organisation. One conceptual distinction is that a diversity approach is concerned with different demographics while an inclusion approach is concerned with the removal of obstacles to the full participation and contribution of employees.

Leadership is a seductive yet elusive concept. In and amongst the supposed attributes required to 'lead' is a 'a measure of personality'. I suspect this kind of assessment takes quite a lot of time and effort and a certain amount of 'know how' in order to assess

appropriately, certainly if the surrounding organisation is platforming and promoting social inclusion, in our case, in the arts. Addressing issues of social imbalances in the arts will require a reduction of fear and a level of openness on the part of those responsible for employing and opening up opportunities to candidates entering the field.

It should be seen as good practice to question practice and to challenge each other where diversity is threatened.

The challenges stated by the European Commission on Employment of Social Affairs and Inclusion state 'unemployment and poverty and social exclusion levels have reached record highs'. Re-evaluating our practices and assumptions about diversity and inclusion and what it actually means for conservation will be a challenging learning experience. It cannot be done passively. To fully realise the value of diversity in conservation, you need to 'give it a go' to enhance organisational learning, growth and personal comfort zones. It would be nice to see a commitment from conservation to mentoring and cultivating brilliant people who might not have the absolute resume at the moment. I would love to observe a civic arena for contentious debate on how to conserve cultural artefacts as a way of widening perspectives on how and why conservation takes place. As politics gets more ridiculous, heated and conflicting we should not fear all shades of opinion on our expertise. Conservators can show leadership in curating the ethics of disagreement making the profession a highly plausible, rational and impactful presence in a very mixed society of beliefs.

Conclusion

To draw to an end. If you feel happy, sad, surprised, shocked, an element of relief about any of the things I have discussed in this talk, you may feel embarrassed, annoyed, confused, you feel I have mis-understood something, bored, out of order, arrogant, you may feel awkward or you may think I am completely naïve to the fact, or, who the hell are you?' Or I have totally and utterly got the wrong end of the stick. All those feelings are what diversity feels like and that's okay. I was asked by a very experienced conservator who is in academia whilst arranging the proceedings for this conference, 'but what does a paper on diversity actually look like?' The challenge is not what it looks like for the conservation field, it's what it feels like that you need to negotiate as professionals and experts and as leaders. Just because you find somebody challenges your structures, cultures and systems, trains of thought, perspectives, it does not give you the right to exclude.

Leadership based on moral values of social inclusion is fundamental if diverse perspectives on conserving cultural heritage are to be recognised and included.

I'd like to thank academic staff at Nottingham Trent University for literature recommendations in preparing for this talk. The Clothworkers' Foundation and Anna Plowden for contributing to some of the costs in attending this conference. And to all colleagues who have shown me support on this matter, it's really appreciated.