Chapter Two

Year Reports

Maggi Loubser and Salomé le Roux

The Inaugural Year

Introduction

On 4 February 2019, Isabelle McGinn's dreams and aspirations came to fruition. It was the first day of the inaugural year of the MSocSci (Tangible Heritage Conservation) programme (THC), a degree that she had been researching, developing and compiling for three years in the Faculty of Humanities at the University of Pretoria (UP). Along with the newly appointed Maggi Loubser, course coordinator, McGinn, lecturer and conservator, welcomed three students: Emila Zambri (a paper conservator with an honours degree in fine arts), Mabafokeng Hoeane (honours in history), and Salome le Roux (master's in visual studies).

As programme coordinator, appointed after the course programme design process was initiated, Loubser was pre-appointed to be involved in the design of the science module without much insight into the programme as a whole. In retrospect, Loubser should have been appointed as coordinator at least six months prior to the initiation of the programme in order to get to grips with the logistics and organisational aspects before teaching started. But she bought into the dream and was determined to hit the ground running and make the programme a success. Loubser's involvement in conservation science grew over about five years before she became involved with the University. She was a trainer and instructor in analytical chemistry, her specialty, to conservators in the USA and Europe. From this exposure, Loubser realised that South Africa was lacking in this area compared to the institutions abroad. Little did she know, all those years ago, that McGinn from UP was brainstorming a programme that would be the first of its kind in southern Africa.

With the Mellon Foundation's gracious funding of the programme, the dream was developed into a programme, or hub of established knowledge, relevant to our continent and open to the possibility of becoming the leading education platform and research base for local solutions to the protection of invaluable

cultural and artistic heritage. This growth would allow African institutions to have the relevant skills and capabilities to welcome home cultural heritage objects removed from Africa during colonialism. These skills and capabilities are not taught at other institutions or universities but were previously transferred to a generation via internships in Europe, a continent that has advanced in its conservation approaches and surpassed the handful of practising restorers and conservators in South Africa. In addition, skills were affected once South Africa became a democracy and budgets were redistributed between museums and galleries, causing conservation to be put on the back burner. There is thus a serious lack of training opportunities for both practising and prospective conservators and no centre to serve as a hub for research and development.

The curriculum

However, this programme is changing the outlook of cultural heritage conservation.

The three students began the first semester with formal lectures and practical exercises, re-enforcing the theory taught. In each module, students were given at least one large assignment as well as smaller continuous assessment exercises. During the first semester, four modules were presented. The first module was THC 801: Conservation Principles and Strategies, a review of the significance, value and use of cultural heritage, as well as the roles and responsibilities of its custodians within relevant professional, ethical and legislative frameworks. The students started this module by presenting their biographical objects. The lectures were presented by Isabelle McGinn and numerous guest lecturers from within and outside the University: Dr Rachel Baasch (Rhodes University), Dr Avi Sooful (UP, Fine Arts), Prof Lize Kriel (UP, Fine Arts), Dr Stefan Simon (then Inaugural Director of the Institute for the Preservation of Cultural Heritage at Yale—2015—2019), Dr Alexander Antonites (UP, Archaeology), Ms Dominique Niemand (UP, Museum and Heritage Studies), Prof Karen Harris (UP, History), and Mr Alexio Motsi (South African National Archive).

Next, THC 802: Science Fundamentals for Conservation was presented. It is an introductory chemistry module specifically tailored to enabling students with no previous science background to gain a greater insight into the chemical processes involved in the practices and techniques used in conservation. The module content focuses on major conservation issues, including material types, environment, cleaning and deterioration. Lectures were presented by Ms Maggi

Loubser (UP, THC), and a mineralogy lecture was presented by Ms Wiebke Grote (UP Geology).



Figure 2.1: Ms Wiebke Grote taught mineralogy to Mabafokeng Hoeane, Salomé le Roux and Emilia Zambri in THC's initial lecture room (photograph by Maggi Loubser)

THC 803: Research Theory and Methodology in Conservation is focused on the research involved in conservation and aspects of collections-based research, including documentation of artefacts, photography, the preparation of research projects, writing project proposals and academic writing for publication. The module was led by Loubser with the help of Dr Aniko Bezur from Yale's Institute for the Preservation of Cultural Heritage (IPCH). Dr Bezur and Loubser were already collaborating, and upon Loubser's appointment at UP, Dr Bezur offered Yale's services to the programme. Darren Alexander (Darren Alexander Photography) was co-opted to teach the students object photography, and Prof Patricia Forbes (UP, Chemistry) taught chromatographic techniques. The module's main assessment was a layout of their proposed research and dissertation focus. The purpose was for the students to keep their own interests in mind while learning about research theory and methodologies so that they could choose relevant theories and methods in advance. This module was also attended by a nondegree-purpose student, Loreley Cairns, an MSc (Chemistry) student working on a thesis entitled 'Fluorescence studies of binders used in paintings; aging and pigment effects', as well as Sandra Markgraaf, a paintings conservator at UP Museums and in private practice.

Figure 2.2: Salomé le Roux and Emilia Zambri looked at types of prints with a USB microscope and a light table (photograph by Isabelle McGinn)

THC 804: Materials, Mechanisms of Decay and Stabilisation of Artefacts explored the physical, mechanical and chemical properties of organic, inorganic and synthetic-based materials. It consists of numerous sub-headings, covering all the different materials. Specialist guest lecturers from within and outside the University presented this component together with Isabelle McGinn and Maggi Loubser:

- Introduction to working with collections—Ms Isabelle McGinn
- Archaeological collections—Ms Isabelle McGinn

30

- An introduction to maritime archaeological collections—Jaco Boshoff (Iziko Museums of South Africa)
- Inorganics 1: Adobe, clay & low-fired ceramics—Ms Isabelle McGinn and Mr Gerard de Kamper
- Inorganics 2: Porcelain & glass—Ms Isabelle McGinn and Mr Gerard de Kamper
- Inorganics 3: Plaster, gesso & lime—Ms Isabelle McGinn
- Inorganics 4: Stone—Ms Isabelle McGinn
- Inorganics 5: Metals—Ms Maggi Loubser and Dr Farahnaz Koleini
- Organics 1: Review of organic chemistry—Ms Nancy Child (Iziko)
- Organics 2: Introduction to hair, wool and natural textiles—Ms Talita
 Fourie (South African Post Office Museum)

- Organics 3: Horn, feathers & quills—Ms Nancy Child (Iziko)
- Organics 4: Epidermal products—Ms Nancy Child (Iziko)
- Organics 5: Structured products—Ms Nancy Child (Iziko)
- Organics 6: Wood—Ms Nancy Child (Iziko)
- Organics 7: Furniture
- Organics 8: Introduction to paper; history and manufacture—Ms Mary Minicka (Western Cape National Archive)
- Organics 9: Introduction to books, history & manufacture—Mr Alexio Motsi (National Archive)
- Organics 10: Introduction to photographic material—Janus Boshoff & Dennis da Silva (Alternative Print Workshop, Johannesburg)
- Polychrome topic: Introduction to composite objects, polychrome surfaces
 as composite objects, easel painting construction, special characteristics of
 polychrome surfaces, handling storage and exhibition of polychrome
 surfaces, determination of stability, surface cleaning—Ms Sandra
 Markgraaf (UP Museums)

THC 804's 'Organics 1: Review of organic chemistry' was also attended by Sandra Markgraaf, and THC 804's 'Organics 2: Introduction to hair, wool and natural textiles' was opened up to South African Museums Association members, and four attended: Hannelie du Plessis (curator at the Pretoria Art Museum), Ruth Makwela (collection officer at the South African Post Office Museum), Mmafa Moloisi (South Africa Post Office Museum and UP PGDip Museum Studies alumnus), and Inandi Maree (curator of the historical collection at the KwaZulu-Natal Museum).



Figure 2.3: Salomé le Roux surface cleaned a ceramic and velvet doll in THC 804 (photograph by Emilia Zambri)

The second semester was focused on a specialisation module, THC 806: Conservation: Paper-based and Archival Collections. Here, students are given the opportunity to apply the theory they were taught in the first six months on a specific topic, under the guidance of subject specialists. This module has the most hands-on conservation practice, where not just preventative but also restorative techniques are taught, and students are given the opportunity to work on real artefacts. The introductory principles of remedial conservation were explored within the chosen area of specialisation, including treatment options and evaluation, with final decision-making processes for appropriate treatment options for cleaning, stabilisation and conservation of artefacts. This module was also attended by Sandra Markgraaf, as well as Ria van der Merwe from UP Archives, who attended specific sections.



Figure 2.4: Mabafokeng Hoeane photograpeds a book for her condition report assignment in THC 806 (photograph by Isabelle McGinn).

The following topics were taught by Mr Alexio Motsi from the National Archive and Ms Mary Minicka from the Western Cape National Archive:

- History of books, manuscripts and paper in the African context
- Paper manufacture & identification
- Manufacture of marbled and decorative papers (Mr Alan Jeffrey, Brenthurst Library—retired)
- The development of the codex in Africa
- Islamic manuscript tradition in Africa
- European missionary activity
- Colonial administration and occupation (1662–1910)
- Types of paper & identification
- Deterioration & damage affecting paper
- Preventive conservation strategies for paper-based materials
- Investigative tools & techniques
- Testing paper for acidity, lignin, solubility
- Treatment planning & development
- Documentation of paper-based objects
- Dry surface cleaning treatments
- Humidification
- Washing
- De-acidification
- Stain reduction & removal
- Drying & flattening after aqueous treatment
- Pressure-sensitive tape removal
- Removal of auxiliary support
- Resizing after chemical treatment
- Tear mending
- Infilling of losses
- Retouching

The year ended with the outbreak of COVID-19 in China. Unaware of the enormous effect lockdowns would have on their second year, the students departed for their summer break before the commencement of their final year, in which they would complete their THC 805: Collections-based Practice (Internship) and THC 800: Mini-dissertation. The first year was challenging, to

34

say the least, but also exhilarating enough to energise all involved for the coming year. After the first year, Loubser and McGinn took stock and decided what worked and what needed tweaking for the next intake in February 2020. It was also time to seriously consider how this programme was going to be built into the flagship programme it had the potential to become.

Collaborations

The inaugural year was a success hugely due to collaborations with a wide range of individuals, who provided support in the form of teaching material, advice and moral support. The programme is especially grateful to Yale's IPCH, not just for making Aniko Bezur available for teaching part of the THC 803 module but also for their continuous support. McGinn was granted the opportunity to attend a workshop on photographic conservation in September 2019, and Markgraaf attended a symposium on conserving canvas at Yale in October 2019, IPCH committed to supporting and assisting in capacity development for THC in the form of assistance with curriculum development and teaching (in person and via digital lectures and demos), creation of a shared online repository of curriculum materials and literature (Google Drive), consultation on lab facility development (remote and in-person), and assistance and supervision of Yale postdoctoral associates in developing and supporting outreach components as part of their positions in South Africa. IPCH prepared and donated textile and fibre, plastics, as well as pigment reference material sets for THC. They are also assisting with analytical support on some of our ongoing research projects (the 'Rembrandt' in the UP Art Collection) and transferring knowledge in the process. Loubser was also negotiating the possibility of one of the students completing her internship for THC 805 with IPCH. Dr Aniko Bezur was subsequently appointed as a research associate in the Faculty of Humanities.

The programme, specifically Zambri along with Markgraaf and Johan Swart (Architecture), worked together with the Department of Architecture to come up with an archival solution for their drafts, plans and other materials. Zambri did a stellar job using her paper conservation skills to find a cost-effective solution for the architecture archives. Markgraaf was already involved in this collaboration and approached us to ask whether Zambri could assist because of her paper conservation background.



Figure 2.5: Emilia Zambri worked on an archival document, her paper conservation background, during THC 806 (photograph by Salomé le Roux)

The programme also collaborated with the UP Art Collection and UP Art archive to assist with the digitisation of reference material for research in the THC programme as part of the digital humanities drive. There was also an initiative to create a documentation app for local museums to standardise documentation in South Africa. This project did not come to fruition.

Javett-UP was founded as part of the University of Pretoria's research, teaching and learning resources. On their website, they state: 'The Javett-UP provides an exciting new space for learning about art: for research and for acquiring and sharing art conservation and restoration skills. It includes a conservation studio for practical work by students in sub-Saharan Africa's first master's degree in the conservation of tangible heritage (MSocSci) on offer at UP from 2019. The programme is funded by the Mellon Foundation.' THC would like to foster this collaboration and see it come to fruition. The programme is especially excited about a joint project to study and conserve the South African artist Alexis Preller's painting 'Discovery', which was acquired especially for the Javett-UP Art Centre and was installed with the idea to do an in-situ, public-view conservation project over the next few years, bringing subject specialists from all over the world and letting the THC students work under their supervision.

Two memoranda of understanding were entered into—one with Ditsong Museums of South Africa and one with UP Museums. These agreements give

access to collections, opening the way to using their specialists as guest lecturers and allowing students to do their internships under experienced mentors.

Challenges

For the course to be viable beyond the first year, the student intake had to be bigger in the second year. The interaction with possible students began early in the first year of the programme by engaging with the honours students from the departments of Visual Arts, Archaeology and Historical and Heritage Studies. Through Loreley Cairns, an MSc (Chemistry) student, awareness of the programme was also created at the Department of Chemistry.

The need for conservation training in southern Africa is immense. It is crucial to introduce some of the programme's modules as short courses that practising conservators and museum professionals can attend to enhance their skills or introduce advanced concepts and processes. The specialisation modules taught by invited guest lecturers lend themselves perfectly to this initiative. This would serve a dual purpose: (1) educating more locally based conservators and professionals and (2) generating much-needed third stream income.

As the programme is dependent on guest lecturers for most of the modules, the cost of running these modules is high. Over time, alumni and professional conservators from southern Africa can be included to teach prospective students. However, for these individuals to be able to build local knowledge and a research hub, the programme will require more equipment. The other expense that is consuming the programme funds is consumables. The conservation materials and consumables for the first year's paper conservation specialisation was around R100 000,00. Even though the equipment is a capital expense that will be available for the future, the consumables for each consecutive year's speciality will most likely be in the same range of R100 000,00. It is a good way of building a laboratory with the correct equipment and materials for a range of heritage objects, but the reality is that these running expenses will be mostly continuous.

During the first year, although the scarcity of conservation and museum facilities was known, there was a huge problem placing the students for their internship module. While most of the national museums were eager to accept the students, it would be unwise to place somebody in an environment where there would be no possibility of mentorship. For 2020, Zambri found an internship at a

building heritage conservator in Australia, Le Roux spent time with UP Museums (her bursary supplier) and would go to Yale's IPCH, while Hoeane was intended to intern at Ditsong Cultural Heritage Museum.

Third stream income

Even though students pay the programme fees, the real costs of presenting the course are much higher than for other courses in the faculty. It was evident that supplying the University's budget and finding alternative ways to fund the course once the Mellon Foundation grant came to an end would be crucial for the programme's survival.

The possibility of opening some of the THC 804 module, which deals with different materials and their characteristics, is an easy way to increase funds. However, there are also multiple additional benefits:

- The conservation profession will be enhanced.
- Mentors for internships will be created.
- Guest lecturers will be more accessible in South Africa.
- Trans-cultural knowledge and skills will be shared.
- · Community outreach will be initiated.
- The short courses will serve as marketing opportunities for the programme.

Income can also be generated from service provision and contract research to the conservation and art market industries, provided the equipment is available in a laboratory. With the acquired XRF spectrometer and the limited imaging equipment, the programme has the tools to start building an African materials database and conducting provenance research in collaboration with UP Museums.

Guest lecturers

For the 2020 speciality module, THC 807: Conservation: Polychrome Surfaces, the programme was fortunate enough to be awarded a Fulbright Fellowship. In 2019, the position would have been filled by Prof Marincola, but she withdrew. Sandra Markgraaf (UP Museums), Maggi Loubser (THC) and Ekkehard Hans (private conservator) were preparing to cover the introductory parts of the

module and support the person who accepted the Fulbright Fellowship.



Figure 2.6: Emilia Zambri and Mabafokeng Hoeane had an introduction to polychrome mediums during THC 804 (photograph by Salomé le Roux)

The cost of guest lecturers will be one of the major expenses for the course annually. Currently, it is covered by a Mellon grant. Future funding for the programme needs to be considered as the current Mellon grant for honoraria and travel terminates at the end of 2021. As the programme does not have the skills to teach all the different modules in-house (and very few institutions in the world have all the skills), they were relying heavily on guest lecturers. This is an excellent opportunity to present students with the opportunity to learn from leaders in the field and give our programme exposure within South Africa and the rest of the world. Most of these guest lecturers have years of experience, and this gives them the opportunity to impart their knowledge to a new generation. It is beneficial to the students to hear from different voices and from different schools of thought to foster academic debate on important issues regarding conservation.

38

The programme would like to thank our guest presenters:

- Dr Rachel Baasch (Rhodes)
- Dr Avi Sooful (UP. Fine Arts)
- Prof Lize Kriel (UP, Fine Arts)
- Dr Stefan Simon (then Director of Yale's IPCH)
- Dr Alexander Antonites (UP, Archaeology)
- Ms Dominique Niemand (UP. Museum and Heritage Studies)
- Prof Karen Harris (UP. History)
- Mr Alexio Motsi (National Archive)
- Mr Janus Boshoff (Alternative Print Workshop)
- Mr Dennis da Silva (Alternative Print Workshop)
- Darren Alexander (Darren Alexander Photography)
- Alan Jeffrey (Brenthurst Library—retired)
- Mr Gerard de Kamper (UP Museums)
- Prof Patricia Forbes (UP, Chemistry)
- Dr Aniko Bezur (Yale's IPCH)
- Dr Farahnaz Koleini (private)
- Ms Nancy Child (Iziko)
- Ms Talita Fourie (South African Post Office Museum)
- Ms Mary Minicka (Western Cape National Archive)
- Mr Jaco Boshoff (Iziko Museums of South Africa)

The venues

THC was initially housed in room 1-8 of the Old Arts Building on UP's Hatfield Campus. The space was small and cramped, with Loubser and McGinn sharing the same desk in the room where lectures and demonstrations were held, next to temporary storage solutions for heritage objects. Lecturers had no privacy to coordinate and organise programme proceedings, and students did not have a space for self-study and assignment completion. The room also had no LAN, Internet, telephone lines or Wi-Fi signal. When the signal did make it through the thick walls, it was very weak, which influenced library access, web-based lectures, University intranet updates and information, and general research.

When we urgently needed laboratory space for THC 806, and neither the promised space in the Javett-UP nor the move to Van Wouw House had been

realised, Prof Karen Harris allowed the programme to use Old Arts 1-20, a UP Archives space. This was a temporary measure, and the students and lecturers made do with what was available, but because of the lack of laboratory equipment and the basics like running water, some of the teaching in THC 806 had to be limited to demonstrations.

The promised space in the Javett-UP was not realised because, due to inadequate planning on the architectural, construction and museum organisation side, the space was repurposed as a temporary storage and crating area. However. Van Wouw House turned out to be a satisfactory alternative that continues to welcome students and visitors. The programme was awarded the Van Wouw House in Clark Street, Brooklyn, by the end of October, but no equipment or cultural objects could safely be moved there yet as the building was not secure. The satellite campus also did not have AV facilities for lectures or any telephone or Internet connections. According to a UP contractor that was consulted by UP Facilities, the electricity infrastructure did not meet municipal specifications and needed to be upgraded. A proposal was written and submitted, and funds were awarded at the end of 2019. By February 2020, the money had not been transferred into the Facilities account yet, but Loubser, McGinn and other parties believed it would happen soon. Facilities submitted the necessary documentation to the municipality's heritage council and received permission to commence work on the heritage building.

40

Van Wouw House is a perfect home for the programme, although it is off-campus. It has space for a lecture room, a student work room, two laboratories (conservation lab and photography lab) and two offices. It also has an outside storage room, which was converted into a walk-in safe to accommodate artefacts and expensive equipment like cameras and microscopes. The photography lab needed a lot of work, from the basics of a coat of paint to figuring out a workable layout. The space was not big enough to accommodate large objects, but as a starting point, it worked. The programme already had a Canon D6 camera that was modified to capture IR and UV images, with one lens and five filters (visible light, UV, 700nm, 850nm and 1 000nm). There was also an objects table and basic colour-checking strips. The programme would need a high-performance computer, an easel for technical photography that can secure artworks and objects, and better light sources.

Despite the building providing adequate space for the students and lecturers, a conservation laboratory is not set up overnight. As there is nothing of the

kind in southern Africa, such a laboratory will be able to service museums and conservators across the entire region. It is crucial that the programme evaluate which equipment will give us the most flexibility and information for the least capital outlay, as well as the ability to train students on equipment that would be feasible for them to acquire and use in their final place of employment. Loubser and McGinn also had to be cognisant of the specific materials researchers would encounter most in Africa and prioritise accordingly.

The security at the venue had been an issue in the past, and even though a new alarm was installed, there was a burglary on South Africa's National Heritage Day 2020. Hopefully, our permanent presence will reduce the risk. The property is large, and as the programme grows, there might be the possibility of building a state-of-the-art conservation laboratory on the bottom terrace and keeping the house for lecturing and office space. This would overcome any issues with structural changes to the heritage building that may be necessary as the programme wants to implement more advanced conservation science techniques and equipment.

When the property was donated to the University by Anton Rupert, the understanding was that it would be used in a way that honours the memory of Anton van Wouw and advocates for the arts. Housing the Tangible Heritage Conservation programme in this building and having an investigation of Van Wouw sculptures as one of the key research areas is a perfect way to honour the memories of those involved. The house is being used as the envisioned hub of conservation knowledge of art and heritage objects.

Acquired equipment

The Mellon grant assisted in the acquisition of a Bruker Tracer5i X-ray fluorescence spectrometer. This is the basic tool used for the identification of the inorganic elemental composition of materials. Pigment chemical compositions in paintings can be identified and used in planning conservation treatments and understanding the materials used by a specific artist, eventually leading to attribution in concert with the provenance and history of an artwork. These instruments are routinely used to identify metals and corrosion products in sculptures and metallic objects and can identify toxins used in ethnographic collections.



Figure 2.7: Salomé le Roux analysed an Anton van Wouw sculpture (photograph by Gerard de Kamper)

This tool was a good starting point, but for the programme to establish itself as a conservation science laboratory, the equipment will have to be expanded over the next few years. The next piece of analytical equipment to be prioritised will be an instrument to identify organic material, such as an infra-red (IR) or Raman spectrometer that is non-invasive and non-destructive. This equipment measures the chemical bonds in an artefact and can identify organic pigments and binders, which the XRF cannot do. The Department of Chemistry at the University has a laboratory IR spectrometer, but the portable system can be used in non-destructive mode, eliminating the need for sampling.

Research focus

To initiate our vision of establishing conservation science as a formal field of research in southern Africa, the primary research focuses were: (1) building up a database of the materials and methods of African art, antique and contemporary;

(2) pesticides in collections; and (3) curriculum development in the field of conservation

The first focus is based on the fact that artists use materials that are specific to a source and a time period of production. With analytical equipment and knowledge housed in THC and UP Museums, the programme was in a unique position to undertake detailed studies of different artists and their media and to build a database for southern African artists. Nothing of this kind exists currently. Apart from the greater understanding of the artistic method, this also has a curatorial application where preventative and restorative conservation can be designed based on scientific principles. This focus is addressed on multiple fronts. Le Roux conducts materials research and analysis while also looking at provenance and connoisseurship in order to attribute specific artworks to black South African artists, like Lucky Sibiya. Her aim is to bring together these three strains of research to understand artists' techniques, style and materiality. Once she has successfully mastered her methodology, she aims to apply her process to other neglected and often-forged South African artists in a PhD study. Loubser aims to propose a PhD based on building a database built on XRF analytical fingerprinting and linking different Anton van Wouw bronze sculptures to specific foundries and time periods. She also proposed a joint venture with UP Museums to conduct elemental analysis of the Mapungubwe Gold Collection (MGC) by XRF, not only to expand on previous pilot research but for UP to become the epicentre of a systematic scientific research programme dedicated to filling gaps in research on the MGC. It would be an opportunity for UP, as the stewards of this globally relevant gold collection, to develop and build a credible comparative database to further geochemical investigations on its key archaeological gold collection, which is due to be exhibited in the new Javett-UP Art Centre. Previous research in 1998 was sporadic and, for the most part, only applied to surface gold beads and results obtained from fewer than five gold samples. The potential for XRF would aid the characterisation of the trace composition or fingerprint of a much larger data set of about 207 gold samples from the MGC. XRF would also be able to confirm or expand on whether the MGC is indeed homogenous. In addition, the increase in gold theft, particularly in the museum context, is crucial, and the application of XRF would facilitate unique identification signatures for the MGC to mitigate the risks associated with curating and researching such an iconic and valuable gold collection.

Pesticides in collections (the second focus) have been proven to be hazardous

to both human health and the collections they seek to protect. Hazardous materials in museum collections are a well-known problem, and historically, many hazardous materials were incorporated into collections as pest-prevention systems. However, the historical documentation of these processes is sparse and incomplete (and, in some cases, non-existent), especially in Africa. Davison Chiwara proposed carrying out chemical analyses of organic collections in Zimbabwe's museums using XRF to determine the chemical properties of the pesticides and their effects on collections and human health. He proposes doing this as his PhD project. As Maggi Loubser is a specialist in XRF and has done this kind of work before, this is a very feasible project and could easily be expanded to other museums in South Africa and southern Africa.

In 2019. McGinn was pursuing her PhD research on curriculum development

in the field of conservation using the THC as a case study. Through a review of available local training and consultation processes to engage with various stakeholders, the thesis identifies local conservation needs and challenges. A curriculum was developed in response to research findings, guided by a review of curriculum development theory in line with criteria for a transformed curriculum. The research contributes to archival knowledge on conservation as a profession in South Africa, a sector in which publication is scant. Additionally, although there are many programmes on heritage conservation internationally, few have been the subject of analysis and self-reflection with regard to their conception, curriculum development or adaptation, and the manner in which they are taught. The thesis addresses this knowledge gap and contributes an original body of knowledge on conservation education in South Africa and abroad. McGinn was awarded her PhD in 2021.

Conclusion

44

THC has a vision to establish conservation science as a discipline in sub-Saharan Africa. The programme also hopes to elevate preventative conservation practices across the continent, and we believe our unique combination of skills and collaborations place us in a strong position to succeed in fostering a generation of conservation practitioners with a scientific backing that can change the status quo in museums and elevate and promote the profile of conservators.

In the words of Luca Turin, a man who spent his entire career translating between different fields of science to explain the mystery of smell: 'We believe

that if you work strictly in one area, it is hard to make progress. But if you have the ability to translate a concept from its field, for use where it is unknown, it is always fresh and powerful. The limiting step is in your willingness to continuously translate, to forge strange languages to be yours, to live between, to be everywhere and nowhere.'

As programme manager for THC, Loubser is willing to be the translator and believes the programme can build strong cross-disciplinary bridges to elevate Tangible Heritage Conservation to the level where it deserves and needs to be to ensure the survival of our heritage for future generations.

The Lockdown Year

Introduction

'One day you will look back on this season and know that you are truly blessed, and not because things were perfect but because you found perfect grace in the worst of it.' — Morgan Harper Nichols

This American singer/songwriter/artist's words resonated with Loubser when she looked back on 2020. The year was a mess, but it gave the lecturers and students so many opportunities to shine, dig deep and find solutions. The lecturers, students and support individuals were there for each other and colleagues and, amidst social distancing, formed more meaningful connections born from the emotional needs of our students and colleagues brought about by the pandemic.

However, Loubser and McGinn looked back with pride on what they did accomplish.

At the end of 2019, the lecturers sat down and evaluated what worked and did not work in the first year of our new programme, and they decided how to implement changes in the second year. Loubser and McGinn's first challenge was the originally scheduled 3 February start of the academic programme, which was seemingly unrealistic. Some of the international students from Lesotho (Mabokang Mokotjo and Mampopi Namane) and Namibia (Henry Nakale) struggled to get their previous year's marks and arrange their bursaries and study visas. Thus, the year's schedule started on 17 February. Even though lectures had started, students had to go back to their home countries to sort out these problems. The lesson learned was that in the first two months of a year, student

administration focuses primarily on undergraduates, which led to the decision to always commence the programme in March.



Figure 2.8: Henry Nakale and Mampopi Namane inspected a ceramic piece during practicals in THC 804 (photograph by Mabokang Mokotjo)

Once the students, along with Laura Esser (German) and Daniéle Knoetze (South African), returned from their 'very early Easter break', it was merely a couple of weeks before South Africa went into level 5 lockdown. Within the first week of 'hard' lockdown, THC moved completely online. At that point, the students had to start THC 802: Science Fundamentals of Conservation. Teaching students from a humanities background chemistry is challenging in itself, and doing so online was probably one of the biggest teaching challenges of Loubser's career. The biggest problem Loubser encountered was the lack of two-way communication: she could not see in their eyes whether they understood the concepts and explanations. She had to adapt the syllabus and teaching material quickly to incorporate daily tasks and assignments, which gave insight into the students' levels of understanding. She fortunately also realised how much material is available online at this level. The style of teaching changed totally from a 'lecture- centred' approach (which is often the style used for introducing students to a new field) to a 'journey of knowledge', where Loubser suggested readings and videos for the students to work through at their own pace, then followed up with a theory lecture to ensure the necessary concepts were covered. Their comprehension of these concepts was then evaluated with an assessment in the

46

form of a quiz, tutorial or presentation by the students. All of this had to happen while the logistical challenges of Internet access, bandwidth, data and IT savvy were being addressed.

The need for Internet access led the two students from Lesotho to decide to remain in Tuksdorp, a UP residential area. Loubser had to motivate and convince the head of Tuksdorp to let these two students spend their COVID lockdown there. The Namibian student returned to Windhoek and commuted to a friend's place daily in a neighbourhood with better Internet coverage. The German student decided to spend the lockdown with her fiancé in Emalahleni, Mpumalanga, and the South African student lives in Pretoria, and her parents helped to upgrade her Internet access. None of us could foresee that the students from Lesotho would be unable to return home for seven months. Mabokang Mokotjo is a mother to two young children, so the sacrifice she made was enormous. Mampopi Namane eventually returned to bury her mother, whom she had not seen all year.



Figure 2.9: Laura Esser, Mabokang Mokotjo and Daniéle Knoetze mended a tear on an archival document (photograph by Isabelle McGinn)

The second-year students, who started the programme in 2019, had two modules, THC 805: Collections-based Training (Internship) and THC 800: Mini- dissertation. They proceeded with their mini-dissertations from their lockdown locations. Le Roux and Hoeane remained in Pretoria, whereas Zambri and her husband emigrated to Australia at the beginning of the year, where she got an internship with a heritage architecture company in Sydney but, unfortunately, was let go during the lockdown. Le Roux and Hoeane are both mothers to young children, so under lockdown, their research had to be balanced with child minding. McGinn was in the same position as she had to balance the new style of online lecturing with having two small children in the house.

Completing the necessary internship hours proved problematic, but fortunately, all three of them completed the requisite number of hours in the first year as part of their bursary commitments and personal career enrichment. Le Roux was scheduled to visit Yale University in May and June 2020 to complete an internship there and return to set up an imaging laboratory for THC, but that was cancelled. Loubser was still hoping that she could visit Yale University in 2021 or 2022, as she wanted to continue in the field towards a PhD. Hoeane's internship with Ditsong could not be realised, and McGinn approached Gerard de Kamper, curator for the UP Collections, to assist and let her complete the hours with UP Museums. She also participated in the Johannesburg Holocaust Centre internship in November and December 2020.

The research for the students' mini-dissertations was also affected by the COVID-19 lockdown. Libraries, museums, galleries, and archives were all closed, limiting the access they had to their study objects and pre-existing knowledge. Zambri eventually got electronic access to the Cockatoo Island Interpretation Strategy Plan and all the exhibits after Loubser wrote to the responsible individuals. Fortunately, Le Roux completed the technical studies on the UP objects in 2019, and she adjusted the scope of her study to include only these objects. De Kamper from UP Museums and Prof Karen Harris from UP Archives also assisted Le Roux with access in the late stages of lockdown to complete some minor changes. Hoeane was assisted by Ditsong National Museum of Cultural History, specifically Gertrude Seabela, the curator, to get access to objects under lockdown.

48



Figure 2.10: Students, Henry Nakale, Daniéle Knoetze, Laura Esser and Mabokang Mokotjo during the first day at the Johannesburg Holocaust Centre (photograph by Isabelle McGinn)

All three second-year students handed in their dissertations by 31 October 2020 and graduated in April 2021. The titles of their mini-dissertations are:

Salome le Roux: A technical survey of Lucky Madlo Sibiya's (1942–1999) materials and techniques employed in his carved and painted wood panel artworks (distinction)

Mabafokeng Hoeane: The spiritual significance and conservation of Dinkhotsa Badimo at the Ditsong National Museum of Cultural History

Emilia Zambri: Heritage and reconciliation within a post-colonial society, Cockatoo Island as a case study

The first-year students started on 17 February with THC 801: Conservation Principles and Strategies. One of the lessons learned from 2019 was that the students were somewhat overwhelmed by the volume of background reading for this module, and lecturers decided to present it as one-week sections every month instead of one block. This gave students more time to read and process the different topics presented by McGinn and a few guest lecturers. The topics were:

- Plagiarism—presented by Gerda Ehlers from UP Library Services
- Art appreciation: Survey of southern African art—presented by Avi Sooful from the Department of Visual Arts

- SA history: Early beginnings, interior encounters, and gold to sold presented by Karen Harris from the Department of Historical and Heritage Studies
- What is heritage and why is it worth preserving?
- Change in collections: Causes and identification
- Writing the past: Media and themes
- Influences of social, cultural and historical periods
- Damage identification
- Working with collections: Prejudices and new practice
- Preventive conservation frameworks
- Mitigating threats through appropriate use & handling
- Codes of ethics and practice
- Decolonising conservation
- Research methodology
- Objects & their investigation

The students had one week of in-person lectures for THC 802: Science Fundamentals of Conservation before their Easter break, and from then on, it was online. As mentioned earlier, it was challenging for multiple reasons—the biggest being that the students did not have strong chemistry and mathematics backgrounds. These adaptations led to a change in Loubser's teaching approach. Students are now required to do self-study and learn basic concepts before each lecture, then ask questions and discuss gaps in their understanding. This style was very appropriate for 2020 because online chemistry teaching took longer than in the previous and following years. Yet students were adaptive and resilient, and lectures progressed at a comfortable pace for each student. Because of this, Loubser realised that some topics could be taught differently, which she subsequently did.

For THC 803: Research Methodology in Conservation, the previous year's partnership with Yale's IPCH with Aniko Bezur as lead lecturer was furthered. In this case, the switch to online teaching meant that Bezur did not need to travel to South Africa, and the relevant lectures were presented in the afternoon to accommodate the time zone difference. But it was challenging to teach practical topics such as imaging techniques, microscopy, X-ray fluorescence spectroscopy, infrared spectroscopy and chromatography without any practical component. Bezur did an incredible job sharing practical case studies, and where students

50

could not do any practical work, some online resources from the Rijksmuseum (https://www.rijksmuseum.nl/nl/scheikunde-lesmateriaal) were translated and used as case studies

Prof Patricia Forbes from the Department of Chemistry presented a lecture on chromatography, but unfortunately, it was not possible to do the combined lecture and practical on infrared spectroscopy with Bruker as was done the previous year. The practical photography section also had to be scrapped as it was meaningless to do it online without any photography studio access. In hindsight, the first-year students of 2020 missed out on the practical aspects of THC 803, but the goal was for them to attend the next year's practical sessions. In the first year, during the THC 803 module, students were tasked with creating a mind- map of their proposed research focus. It was proven fruitful the following year, because the students started to realise which methodologies and techniques could be used in their second year of research. While being taught the methods and techniques, the students also gain a deeper understanding of the topics. In addition, it helps students commence their research much earlier than the start of the second year, when their time is divided between the pressures of writing a mini-dissertation and doing an internship.



Figure 2.11: Laura Esser and Mampopi Namane practised in painting on ceramic objects (photograph by Daniéle Knoetze)

THC 804: Mechanism of Decay and Stabilisation was the one module Loubser and McGinn were the most worried about in the context of online teaching, as this is the module where students learn the different kinds of conservation materials and do a large amount of practical, physical work on objects. They were very anxious about whether it was going to be feasible to do this module online. McGinn stepped to the fore with resolution. She designed and compiled an experimental discovery kit for each student. This was no small task because, under level 5 lockdown, it was almost impossible to buy most of the equipment the module needed, and some seriously inventive ways were found to obtain equipment and objects. Special thanks to Vian Kruger, who made magic happen, and to family, friends and kitchen drawers that revealed wonderful teaching objects. These kits probably cost the programme around R3 000 each, including couriering them to all the students at their respective lockdown addresses. As there were only five first-year students, it was executable.

The content of the student discovery kit is described in Chapter Five. It contains some basic tools and examples of each material: ceramics, glass, metals, plastics, paper, photographs, textiles and organic objects, as well as material to enable students to do simple exercises like making paper and different paints (oil, acrylic and water). One very useful tool was the USB microscope—when they were introduced, McGinn could guide the students by demonstrating or screensharing through an online meeting platform. The students could then replicate the process and share their results with the rest of the class in the form of online presentations. In this module, the students also increased their use of the WhatsApp group, and class discussions often spanned several hours. The excerpt below shows a student in Namibia asking for assistance and the entire class participating in finding solutions, thus putting their theoretical knowledge to practice.





Figure 2.12: Screenshots of a THC conversation while students were in level 5 lockdown (screenshots by Maggi Loubser).

One of the consequences of the COVID-19 pandemic was that everybody moved online, and guest lecturers from abroad were comfortable teaching online. Anupam Sah from Chhatrapati Shivaji Maharaj Vastu Sangrahalaya (CSMVS) Mumbai taught the Inorganics 4: Stone topic of the THC 804 module, and the students really enjoyed his lectures. Some of the other parts of the module—specifically Inorganics 5: Metals, and all the organics sections—were taught by Nancy Child, previously from Iziko Museums in Cape Town, now working as a private conservator. Nancy had never taught online before, and Loubser and McGinn had to support her remotely to set up and learn to use Blackboard, the University's online platform.

As stated previously, it took a lot longer to cover the syllabus, and it was decided to stretch THC 804 over a much longer period, past the first semester all the way into September. This works a lot better than trying to complete it in the first semester, and Loubser wrote a motivation to change the syllabus accordingly and make THC 804 a year module.

The specialisation module of 2020 was THC 807: Conservation: Polychrome Surfaces. The University received a Fulbright scholarship to bring Jean Dommermuth, institute lecturer for the Conservation Centre at New York

University, to South Africa to teach this module in September 2020, but it turned out to be impossible due to travel restrictions and lockdown. As this is the handson restorative conservation module of the programme, it was decided to have the students start working on their dissertations early and move the module to 2021. Jean Dommermuth was scheduled to visit South Africa in August 2021.

This experience also made Loubser and McGinn rethink the entire speciality module. It is not truly elective, as stated in the study guide, because only one speciality is taught each year—depending on the availability of a specialist. These unknown aspects seemed to become a constant challenge with unknown cost implications. Thus, Loubser wants to motivate to change the syllabus to eliminate the three specialist modules from the curriculum and increase the THC 804 materials module as a year module, incorporating more restorative conservation for each of the materials taught, thereby giving the students a broader background.

In September 2020, one of the students, Mampopi Namane's mother passed away in Lesotho, and lectures were put on hold for a month to give the Lesotho students a chance to go home and reunite with their families for the first time in months. At this point, lectures had been continuous from mid-March. The Department of International Student Affairs was wonderful in its assistance in getting the students home and ensuring their visas were in place to return. Fortunately, around that time, the national lockdown restrictions became less rigid.

54

As our group is small and Van Wouw House is ideally suited for COVID-19 social distancing protocols, Loubser decided to bring the students back for inperson teaching at the end of October. Sandra Markgraaf introduced polychrome objects, as these were omitted from the THC 804 module because it would have been the speciality topic for the year. It turned out to be a very exciting section, which the students were grateful to attend in person for the month of November.

During the course of the year, it became evident that this group's writing skills were not on the same level as the previous cohort's. The University has academic writing programmes for postgraduate students, but Loubser and McGinn were of the opinion that THC needed a special writing approach. Loubser contacted Daniéle Knoetze, who, apart from a background in English language, academic writing and editing experience, also has a TEFL qualification (teaching English as a foreign language). She presented 30 hours of teaching, starting with group classes and continuing on a one-on-one basis to help the students develop their

letters of intent and project proposals. It worked so well that it was decided to approach her to teach the 2021 intake in their first orientation week.

From early October, both Loubser and McGinn were working from Van Wouw House full-time because the long-awaited renovations finally started. McGinn also received a few conservation commissions, and both of us were supporting the second-year students with their internship hours and finalising their dissertations. McGinn used the commissions to give the students the practical exposure they lacked during the year. Alexio Motsi from the National Archive also spent a week with the students doing some practical paper conservation.

Having been involved with the South African Museums Association (SAMA) for many years. McGinn is always in contact with museums and museum professionals to get students involved in the museum sector as part of the programme's community outreach. During this time, she was approached by Jordan Saltzman from the Johannesburg Holocaust Centre. They received funding to upgrade their archives and urgently needed hands to assist with the project as they had to spend the money by the end of December 2020. Loubser and McGinn approached the THC students and all the first-year students. Mabafokeng Hoeane from the second year and two students from the honours group in museum studies joined the project. Loubser approached Gautrain and was offered a reduced student tariff as part of Gautrain's student commute pilot project, which she had to subsidise with Mellon funding. This project turned out to be incredibly productive, and the students had the unique opportunity to engage with a real-life collection and be involved from the acquisition to condition assessment, sorting, and storage. They worked until 15 December and were approached to continue in 2021.

During the students' time at the Holocaust Centre, McGinn was also approached by Emma Fraser, a paper and book conservator from Dundee in Scotland, who was visiting family in South Africa and presenting a workshop at Brenthurst library. Fraser agreed to spend two weeks with our students—a week in November 2020 and a week in February 2021.

Through these interventions in the final two months of the year, the class of 2020 probably did more hands-on conservation than the previous year's students. They did miss out on the analytical methods practical during the THC 803 module, but they received the exposure in 2021 when the third intake of first-year students was completing THC 803.

Chapter 3 is a report written by Daniéle Knoetze and Laura Esser on their

experiences of 2020 as first-year students in the programme.

Collaborations

SAMA Train the Trainer 4.5 and 6

The fourth and fifth Train the Trainer workshop presented by SAMA, the Cultural Heritage Agency of the Netherlands, Museum Bronbeek and Atelier Van Beemen, supported by the Dutch Embassy in Pretoria, was hosted by Ditsong Museums of South Africa and the Tangible Heritage Conservation Programme at the University of Pretoria from 9 to 12 March 2020. It was the first time that THC hosted an event of this nature in Van Wouw House. It was a great privilege to have 20 conservation professionals from all over South Africa, as well as Alexandra van Kleef, project manager at the Dutch Cultural Heritage Agency and lecturers Ineke Joosten, Esther Meijer and Roosmarijn van Beemen using our facilities for the training. Jan Huesken and Daniel Smit from the Dutch Embassy also joined. This was the last activity at Van Wouw House before the South African COVID-19 lockdown started.

The sixth Train the Trainer workshop presented by SAMA and the Cultural Heritage Agency of the Netherlands, supported by the Dutch Embassy in Pretoria, was an online programme with a large contingent of lecturers from the Rijksmuseum in Amsterdam. Both Loubser and McGinn attended. These Train the Trainer workshops were invaluable to THC, not just in expanding knowledge, but also in building a network of international collaborators and possible future lecturers, co-supervisors and external examiners.

NICAS - Netherlands Institute for Conservation, Art and Science

Through our contact with Kate Seymour from Stichting Restauratie Atelier Limburg and Amsterdam University, THC was put in contact with NICAS and invited to participate in their project week in November 2020. Our students were also invited to attend the sessions. It was an eye-opener for the students being exposed to the standard and range of work undertaken in these professional conservation laboratories.

NICAS subsequently invited Loubser to serve on the international advisory committee for their International Research Infrastructure for Heritage Science

56

programme, which is also funded by the Mellon Foundation. The invitation stated:

'The International Advisory Committee consists of international experts in the domain of the conservation of cultural heritage. These researchers will represent the disciplinary scope of the program, but also the culturally diverse outlooks on conservation and heritage. The Committee will form the backbone of the program, convening at key moments to shape the content of the program and to provide guidance for the research associates. They will provide institutional links to cultural heritage organisations around the world and give input on the structure of the program and help shape its outcomes.'

Loubser has been serving on the interview panel for the appointment of research associates to the project and attends certain conferences and colloquia, as well as spending one or two residency periods at the Rijksmuseum. With the current travel restrictions, it is hard to know when the residency periods will occur. Loubser hopes that her participation in this project may help to bring an African and developing world perspective to the International Research Infrastructure programme, which would otherwise be very North American and Eurocentric

Global Consortium for the Preservation of Cultural Heritage (GCPCH)

The University of Pretoria volunteered to be the next host of this series of annual meetings that originated in 2016 in New Haven, Connecticut, USA, after the Global Colloquium of University Presidents. Unfortunately, due to the COVID-19 pandemic, the October 2020 meeting had to be postponed to October 2021.

As host of the next meeting, UP chairs the steering committee, and after discussions and a vote, Loubser became the defacto chair of the committee, which consists of:

Maggi Loubser: University of Pretoria

Kristine Juncker: Smithsonian Institution—stepped back.

Alison Gilcrest: Yale IPCH (Yale University)

Tor Broström: Uppsala Universität

Florian Knothe: The University of Hong Kong

Ivan Selin: Smithsonian Institute and Yale University

Stefan Simon: Rathgen-Forschungslabor

Denise Lim: Yale IPCH

Karin Weil: Universidad Austral de Chile

Christine Kreamer: Smithsonian Institute
Marinda Maree: University of Pretoria

Dana Moffett: Smithsonian Institute—stepped back

Alexander Johnson: University of Pretoria

Mary Cassar: University College London Maartje Stols-Witlox: University of Amsterdam

Anupam Sah: CSMVS Mumbai

Krassimira Frangova: Royal Danish Academy for Fine Arts

Susan Keitumetse: University of Botswana Isabelle McGinn: University of Pretoria

Michael Mason: Smithsonian Institute—stepped back.

Kevin Dumouchelle: Smithsonian Institute

Youngjae Kim: Korea National University of Cultural Heritage

(KNUCH)

58 Seungtae Nam: KNUCH

In discussion with some of the role-players, and due to the postponement of the 2020 meeting, a proposal was formulated to start on some research projects and use the 2021 meeting as a feedback session on the past two years' work, with actual outcomes instead of just lectures and discussions. We also envisage publishing a special edition of a peer-reviewed journal with the conference proceedings.

Another tabled proposal that was accepted was to invite the chair for the next meeting to join the steering committee and for the current chair to stay on until after the next meeting to introduce some sense of continuity. At the Mumbai meeting, KNUCH voiced their interest in hosting the next consortium gathering, and they were formally invited, accepted and incorporated into the current steering committee. The possibility of sponsoring a part-time secretary was also discussed, and although the idea gained a lot of traction, the economic climate was not conducive to this. Logistical planning for the October 2021 meeting was underway from the middle of 2020. The idea was to be able to host a hybrid conference with a combination of in-person and broadcast sessions at the Javett- UP.

As part of our academic contribution to the GCPCH meeting, Salome le Roux (PhD candidate) and Loubser joined the Yale IPCH project entitled 'An investigation on how the current COVID-19 pandemic has impacted cultural heritage and conservation training programmes throughout the African continent'.

As the first part of the project, Le Roux and Loubser worked on compiling a comprehensive database of professionals and students in the heritage field in Africa. The pathways to heritage appointments in Africa are very different from those in the USA and Europe, and we wanted to ensure nobody was excluded because they were not associated with an official academic programme. Denise Lim, a social scientist employed by Yale's IPCH, designed the survey but also acquired our input to make it relevant to the African audience. At the end of 2020, the project was still in the development phase, but all involved were convinced that a pilot study could be ready by October 2021.

Iziko-UCT CCA Preventative Conservation week 2020

For the third year in a row, THC was invited to participate in the Iziko-UCT CCA Preventative Conservation Week. As a direct result of McGinn and Le Roux's presentation at the workshop in 2019, San-Mari van der Merwe registered for the THC programme to commence in 2021. Loubser and McGinn asked the 2020 first-year students to present on their experience of the THC programme with the hope that the presentation will again lead to students registering for THC. This workshop was also hosted online in 2020, which allowed for conservation specialists from around the globe to present—another example of how the new way of doing things brought about by COVID-19 actually improved the experience for the delegates/students.

Angels, Ancestors, Alchemy and the Arts in Africa

This International Colloquium was hosted by the Department of Humanities Education (Art Education) in partnership with the School of the Arts from 29 to 31 October 2020. THC presented two papers in the session on 'African spirituality, alchemy and science, health and healing'. Mabafokeng Hoeane and McGinn presented 'The spiritual significance and conservation of Dinkhotsa Badimo in Sesotho and Tswana cultures', and Loubser and Le Roux presented 'Alchemy

or science, the materiality of the artist revealed through analytical techniques'. The presentations were then reworked as articles and published in participating journals.

Flexible Futures Conference 2020

The conference focused on virtual higher education innovation and was presented on 4 August 2021. Loubser presented a paper titled 'Teaching conservation science online, to students without a science background'.

Challenges

THC prepared a funding application with Javett-UP and UP Museums for the UNESCO Diversity of Cultural Expressions programme. Unfortunately, we were not successful, but this document was largely incorporated as the blueprint for the academic leg of Javett-UP and the School of the Arts and Javett-UP collaboration. Sadly, the Javett-UP conservation studio had not yet materialised although it was needed for the GCPCH meeting in 2021 and was intended to be the studio for visiting conservators.

The experiences of the lecturers and students during the first two years indicated that course and name changes were needed. In 2020, Loubser and McGinn were preparing a proposal for the UP Teaching and Learning Committee regarding some adjustments to the syllabus. Firstly, it was noted that the name of the course, Tangible Heritage Conservation, should have just been Heritage Conservation. By the end of 2020, two out of three completed dissertations were focused on the intangible aspects of conservation, and in the 2021 group, this trend continued. The divide between tangible and intangible is an artificial one, especially in the African context where continuous work is underway to incorporate indigenous knowledge and transform our curricula to be truly inclusive.

The other changes THC wanted to propose were discussed earlier. THC 804: Mechanisms of Decay and Stabilisation was listed as a first-semester course, but as experienced in 2020, it would be much better to spread it over the entire first year. The so-called electives—speciality modulesTHC 806, THC 807 and THC 808—are not truly electives, as the students are forced to 'choose' the module presented in their first year, which is dependent on the specialist THC

60

can secure. The speciality modules will always have severe cost implications because of the need to host an individual for a four- to six-week period. Both Loubser and McGinn felt it would be more productive to extend THC 804 to a year module, drop the THC 806, 807 and 808 modules, and incorporate more detail on restorative conservation for all the materials covered in THC 804.

With regard to challenges of funding, even though the Mellon grant is ending in 2023, funding for guest lecturers and equipment was already depleted in 2020. In 2019 and 2020, only four of sixteen bursaries were awarded. From the second intake, two of the students had Lesotho National Manpower Development Secretariat bursaries. In 2020, THC was able to award six bursaries for students to start in 2021, while a seventh was kept for a student from Namibia to commence her studies in 2022—she was unable to attend from 2021 as she was under contract at Museums of Namibia until October 2021

Loubser was actively looking into alternative funding options. Yale IPCH support is ongoing and will be for some time to come. They support us with lecturers, resources, external examiners, and a lot of guidance on our syllabus and equipment. New relationships with NICAS have opened up new possibilities, and Loubser had also been in conversation with the Dutch Embassy in South 61 Africa to link up with some of their exchange programmes. Through the GCPCH links with the Smithsonian Institute, the programme is also receiving many offers to teach, especially now that online teaching is an option and travel is not an additional expense.

Another proposal currently under investigation is to open the subheadings of THC 804: Mechanisms of Decay and Stabilisation as short courses through CE@ UP (Enterprises UP) with a four-fold purpose. First, it would bring in third stream income by having individuals enrol for the short courses. Second, it would be a way to market the THC programme across Africa, as 2020 proved that these courses can be presented online. Over time, and if the numbers are feasible, we could investigate the option of identifying possible 'centres of excellence' across South Africa and the rest of sub-Saharan Africa, which, with our support, could host practical workshops to complement the online courses, thus harking back to the idea of a 'spoke-and-wheel' presentation as per the initial Mellon proposals.

Thirdly, a possible outcome could be that people in full-time employment could do these short courses and build up credits towards THC so that they can complete the remainder of the contact modules at a time that is acceptable

to their employers—the second year's internship and dissertation can be done remotely. The fourth and last purpose would be to provide much-needed training to people currently working as heritage professionals in southern Africa.

We are actively pursuing funding possibilities for expanding our imaging laboratory and acquiring more analytical equipment.

Third stream income

Isabelle McGinn has been bringing in a steady stream of conservation commissions from both private and institutional clients. Apart from some crucial third stream income, these projects serve as excellent case studies for students to work on real objects under McGinn's supervision.



Figure 2.13: Laura Esser and Isabelle McGinn piece together a ceramic bell for a commission (photograph by Daniéle Knoetze)

The venue

Although the funding for the necessary renovations to Van Wouw House was allocated at the start of 2020, it took until late August for the work to start. To date, the electrical wiring was replaced, a safe room was installed for object storage, the thatch roof in the studio was sealed from the inside to prevent

shedding and IT infrastructure was installed (that is, network points, Wi-Fi points and a server cabinet in the office). In 2020, it was too expensive to lay a cable from existing UP Internet points to Van Wouw House, so there is still no Internet installation. A fibre contract had to be negotiated, and IT advised us that the most cost-effective option conforming to their standards was a Level 7 FTTB/ Metro Fibre 200MB/s line at R8 000 per month. THC had to find the funds, so it was decided to consider a Level 7 FTTH/Openserve 200MB/s line at R1 500 per month, although it did not have the service guarantees of the other contract. Loubser still had to find a budget for the contract, as Mellon funding cannot be used for infrastructure. This had to be resolved urgently as the new intake of students started on 1 March 2021 and the Wi-Fi package would not have allowed us to stream lectures without interruptions.

Other outstanding issues on the renovation project were repairs to the ceilings and walls where contractors worked, repair/replacement of rotten wooden window frames, replacement of kitchen cupboard doors and the repair of the access-control bell and magnetic lock on the entrance gate. There were numerous other issues, but the budget was depleted, so THC is continuously addressing these needs with maintenance contractors at UP. One major issue for which urgent budgeting was necessary was repairing the thatched roof. There were numerous leaks, and the thatch needed combing and fixing in various spots.

Alumni

It is THC's intention to remain in contact with alumni and build a network of conservation professionals in the Southern African Development Community (SADC) region and further afield. THC also intends to stay involved in the research projects the alumni do in their places of work after qualifying, especially Lesotho's Department of Culture and the Lesotho State Library where Mokotjo and Namane, respectively, are already employed, as well as the National Museum of Namibia where Henry Nakale is employed. Loubser is also co-supervising a PhD student, Davison Chiwara from Midlands University in Zimbabwe, and the analytical work they will be doing using X-ray fluorescence will be invaluable to Zimbabwe museums and probably lead to long-term collaboration. Le Roux has just been appointed as an assistant lecturer at THC, and in 2020, it was still hoped that she would visit Yale's IPCH and assist with the set-up of THC's own photographic laboratory.

Conclusion

2020 was a year of challenges but also many highlights. The programme was clearly going from strength to strength, and Loubser and McGinn believed that they were successfully laying the foundation for a long-lasting and productive research and teaching hub, which will hopefully help to generate many centres of excellence in conservation throughout southern Africa over the next decade.

The Busiest Year

Introduction

64

The third year of operation was probably the busiest year to date. The first three students graduated in April, while the new intake consisted of nine students. In 2021, Salomé le Roux, from the first group, was appointed as an assistant lecturer, and Daniéle Knoetze was appointed as a research assistant. Without the help of these two extra pairs of hands, the year would have been extremely difficult. The COVID-19 pandemic continued, and with great circumspection, the new intake of first-year master's students was accommodated back at Van Wouw House in person. The group was small enough that the facilities could host them and maintain social distance during intensive practical sessions with good ventilation. Sadly, the next COVID-19 wave struck and teaching reverted to the online mode, literally overnight! After 2020, it was much easier to go fully online, as Loubser and McGinn had developed mechanisms and procedures during the first wave and adapted their teaching methods to make online teaching more effective.

The students

The 2021 intake consisted of nine students, which pushed the facilities to its limits, especially with two additional students doing the THC 804 module: Mariet Conradie, registered for non-degree purposes, and Gerhard Hugo, as an 'internship' for an overseas conservation programme. Six of the nine students were awarded Mellon Scholarships, while the others were either self-funded or held bursaries from the NRF or UP.

The nine students were:

Nancy Collett, Hannes Elsenbroek, Carmen Joubert, Nkami Manyike, Marinda van der Nest, Loreal Vos, San-Mari van der Merwe, Jabu Ntuli and Yanga Dlaba.



Figure 2.14: Neil Harris demonstrates on a formal dress jacket of a royal engineer (ca. 1850) to students (from the left) San-Mari van der Merwe, Marinda van der Nest, Loreal Vos, Nancy Collett and Carmen Joubert (photograph by Isabelle McGinn)

The second-year students were all cleared to complete their research, and they all submitted in time to graduate in April 2022. Of the five students in the programme's second intake, four achieved distinctions. The students and their dissertation titles are listed below:

- Laura Esser: 'A case study of Diane Victor's soot drawings: how they are made, and what can be done to increase their longevity' (distinction).
 Supervisor: Isabelle McGinn, co-supervisor: Soyeon Choi (Yale IPCH).
- Mampopi Namane: 'Assessment of preservation and conservation practices in Lesotho National Archives'. Supervisor: Isabelle McGinn, cosupervisor: Mary Minicka (Western Cape Archive).
- Mabokang Mokotjo: 'Conservation and analysis of a Setlokoa cowhide dress' (distinction). Supervisor: Isabelle McGinn, co-supervisor: Nancy Child (Iziko).
- Henry Napandulwe Nakale: 'Oranjemund shipwreck: a composition analysis of the pewter artefacts and their conservation aspects' (distinction). Supervisor: Maggi Loubser, co-supervisor: Jaco Boshoff (Iziko).

Daniéle Knoetze: 'The art of "looking": A technical analysis of Alexis
Preller's Man in the Sun' (distinction). Supervisor: Maggi Loubser, cosupervisor: Karel Nel (Norval Foundation).

There were challenges getting Knoetze's topic finalised as her first two study proposals could not be realised due to access problems, but Dirk Oegema and the Pretoria Art Museum stepped in and welcomed us to work on their collection at any time. In addition, involving Karel Nel, who is probably South Africa's biggest Preller expert, as co-supervisor helped her make up for lost time and enabled a timely completion.

Loubser was also continuously aiding and working with Davison Chiwara, whom she is co-supervising for his PhD in museum studies.

Assessment methods

After the first year of the programme, Loubser and McGinn were continually revising assessment methods to ensure that students did not just regurgitate lecture material but that each assignment was designed as a learning opportunity in itself and helped to broaden the students' insight into the practical application of theory in the field of conservation. The focus on written reports, although they are tedious to mark, improves students' academic writing skills, preparing them for their mini-dissertation in their second year. However, it was identified that the students struggle with academic writing at the master's level, so during the introduction week of the year, students received various forms of guidance. The students had to attend compulsory UP library orientation, plagiarism avoidance assistance, and academic writing guidance from TEFL specialist Daniéle Knoetze. Knoetze was also brought in to aid students in initiating their research proposals at the end of the year.

Online teaching provided a wonderful opportunity to have two world leaders in their field teaching the two elective modules, THC 807, polychrome objects, and THC 808, archaeological objects. It was necessary to present the 2020 group's speciality, THC 807, in 2021, because COVID-19 prohibited the teaching of THC 807 in 2020. The bulk of THC 807's theory was taught by Jean Dommermuth from the Institute of Fine Arts, New York University, who was awarded a Fulbright Scholarship to come and teach THC 807 in South Africa. However, she could not travel and presented the theory online. Fortunately, the students were able

66

to return to in-person lectures, and a local team consisting of Sandra Markgraaf (Art-Revive), Salome le Roux (THC), Angela Zehnder (Iziko) and Ekkehard Hans (private conservator) handled the practical sessions in the mornings while Dommermuth taught the theory in the afternoons. Jean Dommermuth and the Fulbright programme did indicate their willingness to carry over the award to a time when travel is easier, and Loubser hopes that Dommermuth will be able to present the polychrome module again in person in 2022.

THC 808 was mainly taught by Rae Beaubien, a research associate from the Museum Conservation Institute (Smithsonian Institution) and the University of New Mexico. The local content and perspective were presented by Jaco Boshoff from Iziko Maritime Archaeology, Nancy Child (previously from Iziko Maritime Archaeology), and Tim Forsmann from UP Archaeology and the South African Heritage Resources Agency (SAHRA).



Figure 2.15: Students Nancy Collett, Hannes Elsenbroek and Carmen Joubert remove a ceramic object from a simulated burial site in THC 808 (photograph by San-Mari van der Merwe)

In 2021, THC 803 was again presented by Dr Aniko Bezur from Yale's IPCH and Loubser, but this time, they were assisted by Le Roux, who showed a keen interest

in analytical chemistry and analysis in the field of cultural heritage.

The programme would also like to acknowledge and thank the other guest lecturers:

• Karin Harris: UP Historical and Heritage Studies

Avi Sooful: UP School of the Arts
Patricia Forbes: UP Chemistry

• Gerard de Kamper: UP Museums

Cuan Hahndiek, Natasha Higgitt and Elijah Katsetse: SAHRA

• Neil Harris: Private textile conservator

 Nancy Child: Private (previously from Iziko, where she taught organic materials and metals and co-supervised)

• Anupam Sah: CSMVS Museum Art Conservation Centre, Mumbai



Figure 2.16: Yanga Dlaba practising inpainting on a ceramic bowl during THC 804 (photograph by Isabelle McGinn)

Collaborations

$Yale's\ Institute\ for\ the\ Preservation\ of\ Cultural\ Heritage\ (IPCH)$

As was the case in 2020, Yale's IPCH continued to support us by acting as guest lecturers and external examiners for assignments and a dissertation and again permitting the students to access their two weekly colloquia. This is a

fantastic opportunity for the students to get insight into what practical projects conservators in the USA are doing.

NICAS - Netherlands Institute for Conservation, Art and Science

Also, through Loubser's position as an international advisory committee member of the Netherlands Institute for Conservation, Art and Science (NICAS), the students were invited to follow their monthly colloquia. These are conservation science-based, so they are usually optional, and Loubser advises the students when the topics are relevant to the syllabus or their particular field of research. As the time difference between the Netherlands and South Africa is minimal, the class often watches the colloquium as a group after a lecture.

Iavett-UP

Loubser was in numerous talks with Javett-UP about collaboration and the Conservation Studio in Javett-UP that had not materialised until 2022 due to numerous factors. However, the new management of Javett-UP was positive 69 at the start of 2022, and Loubser believed THC would begin managing some formal collaborative projects. The School of the Arts made R30 000 available for a workshop to be presented by THC at Javett-UP on basic preventative conservation titled 'How to care for your treasures'. The local community was invited to attend.

Prof A Johnson endlessly battled to get the Javett-UP Conservation Studio ready for the envisaged in-person GCPCH in October 2021. THC and relevant individuals from the School of the Arts were very frustrated, but funds were made available again, technical services reduced their excessive specifications, and the project was proceeding as of writing.

Internships and community service

Arising from the horrible Jagger Reading Room Fire at the UCT Library in April 2021, an urgent call for support went out to the conservation community. McGinn and four of the first- and second-year students responded to the call and rushed down to assist in the salvage operation. Jabu Ntuli, Daniéle Knoetze and Laura Esser travelled from Pretoria, whereas Henry Nakale was already in Cape Town

doing an internship at Iziko Maritime Archaeology Unit. They received great praise for their knowledge and skills, which meant they could be more than just 'pairs of hands' but could actually apply their knowledge in triage tents where decisions were made on sorting material brought out of the burnt and water- damaged collection. A similar call went out early in 2022 for assistants to a visiting German paper conservator, and consequently, Ntuli and Knoetze got the opportunity to return and start on some of the conservation work at UCT.



Figure 2.17: Jabu Ntuli surface cleaning draught plans at UCT. The lentil bags were a makeshift paper weight, as the department at UCT did not have the necessary paper conservation equipment (photograph by Daniéle Knoetze)

Other conservators who opened their studios to the students for internships were Sandra Markgraaf (UP conservator and owner of ArtRevive), Jaco Boshoff (Iziko Maritime Archaeology Unit), Mary Minicka (Western Cape Archive), Lucy Blumenthal (Fine Art Restoration & Conservation) and Grace Welsh (Fine Art Restoration). Emma Fraser, a book and paper conservator from Scotland, was in South Africa visiting family and spent two weeks with some of the 2021 second-year students.

As part of THC's outreach programme, Loubser also allowed Gerhard Hugo to attend THC 804 in lieu of an internship for his MSc in world heritage conservation

at the University College Dublin. Because of COVID-19, Loubser and McGinn did not feel organised enough to take him on as an intern, but as the THC 804 module is very practice-oriented, it was thought to be a good alternative.

Also, as part of THC's outreach and collaboration, when Javett-UP urgently had to move the Preller Discovery of the Sea Routes Around Africa painting, the THC students were called upon to assist with emergency consolidation and moving the very large painting. Knoetze, Esser, and Elsenbroek assisted Sandra Markgraaf with the consolidation and move to the Eduardo Villa Museum.

Student employment

One of the students, Laura Esser, who graduated in April 2022, was offered a contract with the Brenthurst Library in Johannesburg. Emilia Zambri, one of the first graduates, is currently employed at the Museum of Applied Arts and Sciences in Sydney, Australia. Mampopi Namane is still employed by the Lesotho State Library, and Mabokang Mokotjo is with the Department of Culture in Lesotho. Henry Nakale recently joined Windhoek Museum in Namibia. Daniéle Knoetze obtained a contract at UCT to continue the conservation of the salvaged items from the Jagger Library fire.

Future course structure possibilities

A motivation was made to the teaching and learning committee and the faculty board to deactivate the so-called elective modules (THC 806, 807, 808), which were never truly elective. In addition, finding the specialists and funding every year was going to remain a challenge. THC 804: Materials, Mechanisms of Decay and Stabilisation of Artefacts took a lot more time than the designated credits allowed to do justice to all materials. Consequently, it will also be deactivated and replaced with a new core module, THC 810, running the entire year to accommodate updated attributes and credits for all the above content.

Another 'experiment' in 2021 was to allow a student, Mariet Conradie, to register for the THC 804 module (which takes the most time of all the modules and is spread over the entire year as each component is covered by another guest lecturer) for non-degree purposes. She completed the module and subsequently registered for the full degree in 2022, enabling her to do only THC 801, 802, 803 and the elective, so in effect, she needs to take less than six months off from

72

work. The second year consists of the internship and dissertation and can be done remotely. This enables a working conservator to do the master's in the required time but with minimum study leave. This is an important market to tap into because many potential students are already in senior positions in museums and have an influence on the personal development plans of junior staff. Even if they retire in the next ten years, they can also be part of THC's accelerated training programme to present basic conservation training across sub-Saharan Africa.

During the Global Consortium for the Preservation of Cultural Heritage (GCPCH) meeting, Loubser and McGinn were again reminded of the urgency of accelerated conservation training in Africa. Discussions were initiated with Hermien Dorfling at CE@UP to present the THC 804 (future THC 810) module as a series of short courses that could be attended by practising conservators. The stakeholders just need to formalise a way in which these students can accrue credits towards the full degree if they wish to do so.

Loubser and McGinn hope to keep the THC alumni in the fold, support them in forming centres of excellence in our neighbouring countries and let them develop training programmes with our support. Conservators in Africa enter the profession through very different pathways, such as archaeology, museum studies, tourism, history, art, etc., and do not necessarily have the skills or background for the work they do.

Global Consortium for the Preservation of Cultural Heritage

Organising this conference, held from 27 to 29 October 2021, took up a lot of time in 2020 and 2021. Loubser and the organising committee realised it was a blessing that it had to be fully online as the conference proceedings would reach participants who would not have been able to attend otherwise. The meeting was a mixture of daily topical lectures and, at the end of each day, a round table discussion involving all that day's presenters.

A lot of new voices were brought in by the steering committee: the Netherlands Institute for Conservation, Art and Science (NICAS), the Academic Conservation Education Sharing Site (AcCESS), and Conservation Science Education Online (CSEO). They all hoped to use the GCPCH as a springboard to advance their initiatives—mostly born from needs arising due to COVID-19. This also broadened the scope for the GCPCH and proved to serve the organisations

well in their future endeavours towards sustainability.

Le Roux and McGinn were indispensable in making this GCPCH meeting a possibility. As output, Loubser, McGinn and Le Roux plan to publish the conference proceedings as an e-book through the University of Pretoria's Emerging Scholars Initiative Press.

Academic output of lecturers

· PhD thesis

 Isabelle McGinn completed her PhD dissertation titled 'More than Staples and Glue: Conservation, Heritage and the Making of a Curriculum'.

• Iournal articles

- De Kamper, G. and I. McGinn. 2021. 'Of Unknown Men: Rembrandt or Not? A South African Provenance Story'. De Arte 56 (1).
- Hoeane, M. and I. McGinn. 2021. 'Making a Case for the Spiritual Significance of Dinkho tsa Badimo as Sacred Ceramics in Museum Collections'. Pharos Journal of Theology 102 (Special Edition 1).
- Loubser, M. and S. le Roux. 2021. 'Art? Science?...... Alchemy: The
 Materiality of Spiritual Expression in Artistic Creation Revealed
 through the Analytical Techniques of a Heritage Conservator'. Pharos
 Journal of Theology 102 (Special Edition 1).

Conference papers

- Loubser, M. 2021. 'The Use of Handheld XRF to Identify Foundries
 Used by the Sculptor Anton van Wouw (1862–1945)'. 70th Annual
 Denver X-ray Conference, 2–6 August 2021 (Invited Speaker).
- Loubser, M. 2021. 'Handheld XRF to Identify Foundries Used in Sculpture'. Swedish X-ray Conference (Kemistutbildarna), 20–22 September 2021 (virtual) (Invited speaker).
- Loubser, M. 2021. 'The XRF Is Still a Dumb Machine'. Swedish X-ray Conference (Kemistutbildarna), 20–22 September 2021 (virtual) (Invited Speaker).
- McGinn, I., L. Esser and D. Knoetze. 2021. 'Paper at a Distance: Conservation in the Time of the Covid-19 Pandemic'. Mod Dons: Modern Conservation, Modern Constraints, Modern Conveniences, 4–7 October 2021 (virtual), Institute of Conservation, UK, Book and

Paper Group annual conference.

• Public internierus

- Maggi Loubser. Round table discussion on 'Education and profession realities in different global contexts'. Access (Academic Conservation Education Sharing Site). 18 June 2021.
- Maggi Loubser. RSG 'Stuur die Goggas in'—Interview, Radio Sonder Grense. 13 August 2021.
- Maggi Loubser. RSG 'Wat is Kulturele Erfenis en Hoekom is die Bewaring daarvan so Belangrik?'—Interview, Radio Sonder Grense, Martelize Brink. 24 September 2021.
- Maggi Loubser. 'How Does an Analytical Chemist and Material Scientist Land in a Heritage Conservation Programme?'—Loyola University Chicago. 18 November 2021.

• Other academic endeavours

- Maggi Loubser co-supervises Davison Chiwara from Zimbabwe with Prof Siona O'Connell on his PhD dissertation titled 'Collections Conservation Practices and Possibilities of Contamination by Hazardous Pesticides: Towards a Non-pesticide Approach of Conserving Organic Artefacts at the Natural History Museum of Zimbabwe'.
- Maggi Loubser co-supervises Sydney Ngetu on his MSc (Chemistry)
 dissertation titled 'Comparison of Performance Characteristics of
 Natural Calcined Clay versus Fly Ash in Pozzolanic Cements Based on
 Reactive Silica Content of the Respective Pozzolan Materials'.

Proposed PhD projects

Three of THC's alumni considered continuing with their PhDs once there is an optimal place in the School of the Arts. The first is Salomé le Roux, who wants to continue her research on Lucky Sibiya; the second is Mabokang Mokotjo, who wants to continue her study on the conservation and analysis of a Setlokoa cowhide dress; and the third is Henry Nkale, who would like to continue his work on the Oranjemund shipwreck project and try to get funding to move the collection from its inaccessible position in the mine to a previously identified building in the town of Oranjemund. Related to Mokotjo's research, THC is looking for funding to have a dress commissioned for the National Museums of

Lesotho and the entire manufacturing process filmed as part of living heritage conservation

Funding

The Mellon grant runs until 2023, but in practice, the last two years' funding consists mostly of the programme coordinator's salary and the six remaining student scholarships. There is R45 000 allocated for materials and R25 000 for equipment maintenance in 2022, and in 2023, there is only R45 000 for materials. Fortunately, because THC did not use budgeted travel funding for 2020 and 2021, Loubser was able to stretch the budget into 2022 and hopefully 2023, but alternative funding will be needed if the programme is to continue past 2023. For example, UP does not supply Internet to Van Wouw House, and THC has a fibre contract for close to R1 000 a month.

From experience, the largest expense in the programme is honoraria and travel expenses for visiting lecturers. Another great need is funding to assist students in doing their internships. Hosts identified are typically happy to have them, but THC needs to assist with transport and accommodation costs. There are also costs involved when Loubser has to travel to students' study locations for assistance with analytical work (as was the case with Nkale's research in Namibia and Chiwara's research in Zimbabwe).

Loubser identified the possibility of a 'winding down grant' that specifically addresses these issues and the idea of expanding THC's reach into Africa via centres of excellence.

Loubser also tried to tap into some other relationships built over the first three years. She was in discussion with the Dutch embassy to bring out one of the NICAS associates to teach textile conservation in 2022, which would also serve as the associate's immersion experience as part of the NICAS Mellon International Infrastructure Development for Heritage Conservation. This way, NICAS will fund half the costs, and hopefully, the Dutch embassy will fund the other half. The associate from NICAS, Annelena de Groot, presented textile conservation at THC in 2022.

In her discussions with the embassy, Loubser tried to slot this exchange into a longer-term programme. The relationship with the Dutch, specifically their Train the Trainer initiative, also enabled the identification of a co-supervisor for one of the 2021 students (Hannes Elsenbroek), and she, Lise Havermans-Steyn, also

expressed the possibility of an internship in the Netherlands.

THC also finalised the visit of Salome le Roux to Yale's IPCH in 2022. She would learn more analytical techniques and investigate their imaging lab setup to improve THC's own photography studio. She was awarded an honorarium from Yale's IPCH, but her travelling costs were self-funded.

Upgrading the programme's equipment

Upgrading the photography studio and acquiring a Raman or IR spectrometer to compliment the XRF spectrometer were still on the priority list, but with the distractions of COVID-19 over the past two years, THC did not want to motivate this while there were so many 'life and death' issues at hand. Also, it would be preferable that Le Roux spend her time at Yale working on different equipment techniques before Loubser motivates for large capital expenses.

The XRF spectrometer has already contributed to two master's dissertations and one PhD dissertation and also assisted a fourth-year student in metallurgical engineering with her project, which generated some third-stream income. However, the third-stream income has not been what we hoped for, but 2020 and 2021 had many limitations, so hopefully, as people become more aware of the programmes' capabilities, THC will be utilised more often.

Conclusion

Loubser was of the opinion that the exponential growth in students (not just bursary holders) is enough evidence of the programme's potential. THC is systematically making a name for itself internationally through conferences, student dissertations (external examiners), collaborations with associations like IPCH, GCPCH, NICAS, AcCESS, CSEO and local bodies like the South African Museum Association (SAMA). The private commissions McGinn brings in from private as well as institutional clients are growing evidence of the reputation of the programme's restorative conservation. The fact that institutions like UCT and the Johannesburg Holocaust and Genocide Centre reached out and requested our assistance also underlines this. Thus, 2022, the busiest year that turned into a very successful period, proved THC's capabilities and passion for cultural heritage conservation.

76