

CONSERVATION CONVERSATIONS: MOVING TOWARDS TRAINING FOR TANGIBLE HERITAGE CONSERVATION AT THE UNIVERSITY OF PRETORIA

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ABSTRACT

The state of conservation in South African museums and other heritage repositories such as those at higher education institutions are in a state of crisis, which can partly be ascribed to a lack of professionally trained conservators in this sector, and a lack of university qualifications in the field of conservation. This paper discusses the recent award of a multi-disciplinary curriculum planning grant for Tangible Heritage Conservation and a subsequent series of conversations and consultations held by the University of Pretoria with diverse national and international stakeholders as well as with cross-border countries in the southern African region. This consultation approach aimed to seek synergies and to address how the University of Pretoria could respond to the needs in the development of conservation training at postgraduate level. It is within this context that this paper will further highlight the most recent state of conservation and conservation needs based on site visits and assessments gathered during the consultation process, and to address the goals and outcomes from critical stakeholder meetings. Whilst the results suggest an emergent picture of isolated pockets of conservation excellence, the vast majority of institutional efforts toward conservation are in decline, with a broad range of challenges such as poor succession planning, lack of conservation facilities, budget constraints and insufficiently trained and qualified staff, in both theory and practice, to address preservation and conservation needs. Conclusions hope to advocate for the vital importance of sustainable conservation in promoting the longevity of South African collections by offering a ray of hope by contributing to a new future qualification in Tangible Heritage Conservation at the University of Pretoria.

Keywords: University of Pretoria, training: conservation: tangible heritage: curriculum planning.

INTRODUCTION

Culture is a very deep part of individuality. To assure the dignity and well-being of future generations we need to safeguard culture. Monuments are a visual library of our human as well as spiritual passage in all its fullness – good and evil. It is always cultural monuments that are under attack in political conflicts – and for very good reason; [to destroy cultural objects creates] a blow to society and to peoples' sense of security and identity (Bouvard cited in Cloonan 2007:752).

People seem to have an instinctual urge to preserve their own personal histories, which extends to the preservation of the collective histories of their families, communities and nations through international law, professional practice and an array of institutions, trusts and foundations (Cloonan 2007:752). For example,

the Andrew W. Mellon Foundation, based in the United States, is such a non-profit corporation that believes that “humankind has developed means of chronicling, recording, analysing, and transmitting its understanding of human agency, dignity, history, and society” and has achieved this through the arts and the humanities. Their mission is thus to strengthen, promote and nurture cultural heritage programmes at leading cultural institutions and institutions of higher learning to ensure a ‘shared global future’ (Andrew W. Mellon Foundation 2017).

MELLON FOUNDATION CONSERVATION SURVEY

In early 2015, the Andrew W. Mellon Foundation initiated a brief survey that was distributed as an electronic questionnaire to targeted South African national, regional, private and public institutions involved

in heritage education, curation and conservation. Respondents included curators, conservators, administrators and academics from 16 institutions that included several universities, i.e. the University of Kwa-Zulu Natal, the University of the Witwatersrand, the University of Cape Town, and the University of the Free State as well as the University of Pretoria. The questionnaire was divided into three main sections: for collection managers/curators, for administrators and for conservators. The questions sought clarity on the size and scope of collections, the training and qualifications of staff working with the collections, existing preventive conservation measures in place and how the institution coped with remedial conservation needs. In addition there were questions that related to conservation budgets, training in heritage studies and related fields offered by the institutions, where applicable. The survey yielded an emerging image of the state of interventive and preventive heritage conservation in South Africa, exposed the challenges and highlighted areas of greatest need.

Responses to the survey suggested that further engagement would be required and an art conservation workshop was held in March 2015 at the University of Pretoria, where the Andrew W. Mellon Foundation selected 36 local and international academics, museum professionals and art conservator-restorers. The aim of the workshop was to address four key questions: is there a need and potential for university-based training in conservation in South Africa? What components should such a programme have and what competencies would it foster? Who could plan, launch, test and develop such a programme? and finally, should alternatives to a formal academic programme be considered in the meantime, or in addition to formal academic training? (Westermann 2015:2).

The general consensus, as noted by Mariët Westermann the Vice President of the Mellon Foundation, is that "conservation in South Africa needs to be strengthened, promoted, and, where necessary, defended" (Westermann 2015:3). This cannot be envisaged without the involvement of universities in the formal education of conservators, since conservation is not just a technical service profession (SAMA 2016:32; Westermann 2015:3). Conservation in the 21st century is moving beyond the mere application of 'treatment recipes' as cultural heritage objects are increasingly considered beyond their physicality to include their conceptual integrity, the people who created them, and the associated ethics and politics (Balachandran 2016; Sully & Pombo Cardoso 2014:180-193).

Subsequently, as the approach in conservation changes, working in isolation is no longer desirable. A conservation programme requires cross-disciplinary within the parent institution, collaborative efforts and partnerships with museums, libraries and other academic institutions and a strong network of practising conservators and allied professionals within South Africa, the continent and the world. Expertise may initially be brought in for such a programme, relying on the growing network mentioned previously. However, South African institutions need to build local education capacity even if early- or mid-career conservators receive additional training to "educate the educators, train the trainers, teach the communicators" (Westermann 2015:4). Such conservation training would thus have to be creative and flexible to train both conservation educators as well as a young upcoming conservation academics, conservation managers and conservation technicians.

A key outcome of the workshop was an agreement that the provision of postgraduate training and education for conservators by universities and related partner institutions could constitute one of the key mechanisms to promote the conservation of cultural heritage. It was decided that South Africa could benefit from the development of a Master's degree programme in the theory and practice of conservation. The envisioned academic programme would serve to build the research capacity of a new generation of conservators and applied research on materials research, collections-based research, and documentation of such ongoing research; thereby contributing toward diversifying the demographics in the current conservation profession (De Waal 2016:5)

CONVERSATION AND CONSULTATIONS

Following the 2015 Art Conservation Workshop, the University of Pretoria was awarded a multi-disciplinary grant for the development of planning a curriculum on Tangible Heritage Conservation. The University of Pretoria has since embarked on a series of conversations and consultations with diverse stakeholders throughout the South African heritage sector. Stakeholders were initially identified based on 'their capacity to contribute directly to the programme by means of their facilities and specialist expertise, or their relevant foundational or undergraduate courses or training that can provide entry into the programme' (De la Rey 2015:7). This group was continuously enlarged with stakeholders, colleagues and other institutions and eventually a total of 80 institutional staff and six conservators in private

practice were consulted. They came from 36 different institutions that included government departments, national museums, provincial museum services, municipal museums, archives and other training and tertiary institutions in Gauteng, Kwa-Zulu Natal, the Free State, the Northern, Eastern and Western Cape (McGinn 2016a:1-3).

This consultation process was carried out over a period of seven months and included stakeholder meetings and site visits internationally, nationally as well as with cross-border neighbours in the southern region. The exhibition, storage and conservation facilities of various institutions were visited, as well as studios of conservators in private practice. Informal discussions held with staff during these visits centered on staff numbers and skills, preventive conservation guidelines already in place, as well as their approach to remedial conservation. This process imparted a sense of who is currently involved in conservation, at what level, and how their projects are carried out. These site visits were then followed by documented stakeholder meetings in Pretoria, Durban, Cape Town and Kimberley where conservation challenges, needs and potential solutions were discussed (McGinn 2016a:1-3).

In an effort to include and interview individuals representing a broad base of competencies, requests for site visits and invitations to stakeholder meetings were extended to all of the following disciplines: technicians, conservators, collection managers, curators, managers and directors from a broad base that covered all skills levels from collections management, curatorship, art history, art, history, architecture, archaeology, museology, higher education, archives, special library and rare book collections, historical collections, archaeological collections, collections of natural specimens, textiles, furniture, preventive conservation, metals conservation, ceramics conservation, paper and book conservation as well as conservation of the built environment and architecture (McGinn 2016a:1-3).

The resulting trends echoed the 2015 Mellon questionnaire feedback in that the state of conservation in South African museums, and other cultural repositories such as university collections and museums, are indeed in a state of crisis with ongoing deterioration and loss to collections (Koen 2016; Sack 2017). The most pressing issues and challenges identified include diminishing subsidies, freezing of posts, ageing infrastructure, over-crowding of repositories, a lack of dedicated budgets for conservation, a misunderstanding

of the role and purpose of conservation, scant expertise and research, a non-existent publication record on local content, conservation practitioners close to retirement, poor succession planning, and a lack of local training opportunities (McGinn 2016b; McGinn 2016c). Sadly, this has been an on-going situation for over a decade and many of these challenges could be addressed through the development of formal training in conservation.

FACTORS CONTRIBUTING TO CONSERVATION CHALLENGES IN SOUTH AFRICA

In comparison to the efforts displayed at managing and preserving heritage sites, there appears to be very little concern for the long-term preservation of movable cultural heritage (Ashley & Bouakaze-Khan 2011; Mire 2007:56-57). The allocation of resources to the acquisition and recovery of excavated material due to the growth of cultural resource management practices in archaeology and heritage conservation management has not resulted in a concomitant increase in trained staff, conservation facilities, expanded storage and funding for the long-term preservation of this cultural heritage material, which has contributed widely to the global 'curation crisis' and the deterioration of collections (Bawaya 2007:1025-1026; Podany 2003:200-210).

There are a number of additional factors contributing to the deterioration and loss to collections, and these can be grouped into two categories. Firstly, financial constraints that include diminished subsidies and mismanagement of funds, ageing infrastructure and buildings as a result of budget constraints, deferred maintenance and repair, and a lack of dedicated budgets for conservation all lead to unsuitable conditions for the storage, display and conservation of cultural material (Schuit, Bull & Holtrop 2017:10-12). Linked to these financial constraints are the competing recipients of constrained resources and the poor buy-in for preventive conservation at management level.

'Conservation', as has been used throughout this paper, is an umbrella term which regroups restoration, interventive or remedial conservation, and preventive conservation or preservation. Restoration refers to returning an object to a previous known state of function or aesthetic appeal. Remedial conservation refers to treatments to stabilise objects and arrest or slow down deterioration or decay. Preventive conservation involves a series of ongoing processes of risk management and monitoring ranging from the integrity of the building's

structure as first line of defence, all the way to the object to prevent damage from occurring in the first instance. When carried out optimally the result of preventive conservation is the continued preservation of the collections and their increased longevity, which by definition is not immediately visible. As the results of effective preventive conservation are not immediately evident, it is often regarded as non-essential and without proper advocacy, receives little support from management particularly at smaller institutions.

The second category of factors contributing to the poor state of preservation of collections is attributed to human resource challenges and includes scant expertise, conservation experts close to retirement, poor succession planning, as well as a lack of local training opportunities for the development of younger staff members (Schuit et al, 2017:25). As Smuts (2014:56) points out, conservation of cultural heritage is a little-known field in South Africa and it is impossible to study locally as most training opportunities are presented as short courses and focussed on a particular collection or material type such as paper, furniture or textiles. For the most part these short courses concentrate mainly on preventive conservation, basic guidelines for storage, handling and cleaning. The duration of these courses can vary from a couple of hours to a few days, rarely longer, and as such are ideal vehicles for the preliminary or on-the-job training of technical staff, but they do not provide for continued professional development in more advanced skills and understanding. Additionally, there is no training for teaching conservation staff on how to get 'buy-in' from stakeholders, thus advocating for conservation.

The consequences of both above categories, i.e. financial and human resources constraints are visible in understaffed institutions, where single staff members take on multiple roles as curator, researcher, collections manager as well as the preventive and remedial conservation of vast and diverse collections. These dedicated individuals often operate with minimal resources, limited training in conservation and even less supervision from experienced conservators. Conservation is thus largely reactive, with more complex remedial treatments carried out by contracting-in conservators from private practice if funds allow or if an insurance pay-out is available (Schuit et al, 2017:5-6).

CURRENT STATE OF CONSERVATION IN SOUTH AFRICA

The current state of conservation in South Africa can thus be ascribed to a general misunderstanding at management level that collections form the core of a museum's *raison d'être*, and that preserving the collections ensures the survival of the museum and minimises the need for future costly restoration on the one hand, and on the other hand to limited skills and expertise in conservation. These challenges can be attributed to insufficient exposure to preventive conservation as part of general museological training, a lack of professionally trained conservators in the sector, and no academic qualifications in the field of conservation. What is required then, in both instances, are academically trained professionals, interventive conservators, conservation managers and collection managers who can advocate for heritage preservation and conservation.

This is not to say that the South African heritage conservation landscape is devoid of any conservation training. Over the years a number of training opportunities have been developed at various institutions. These however are specialised programmes. They require a large staff contingent as each avenue of conservation is highly specialised, the equipment and materials required are costly, and the student intake is usually small with between 5 to 12 participants to ensure adequate individual attention and supervision during conservation projects (ENCORE 2014:6). For academic institutions which rely heavily on government funding such programmes can easily be construed as inefficient, being too costly for little visible returns. Perhaps for this reason current training opportunities in South Africa are mostly limited to short courses and workshops, which additionally are mostly presented on an ad hoc basis, complicating the possibility of enrolling and completing a full training programme with in-depth enquiry.

The current challenges thus include a number of issues leading to the deterioration of collections, such as diminishing human and financial resources for instance. In addition, current local training opportunities have failed to make a significant difference nationally because of their own financial limitations. The philosophy underpinning the creation of a new conservation

programme thus is focussed on why it is important to preserve cultural heritage. As already previously mentioned in this paper, cultural heritage resources are a material link between past, present and future, and are central to the shaping of identity, the exploration of accepted and counter-narratives, and they find a use in the pedagogic sphere and transmission of knowledge, ideas, thereby shaping and aiding in the transformation of South African society. The promotion of cultural heritage and its preservation should thus be seen as part of responsible stewardship, which has become both a national imperative as well as an African imperative (African Union 2015:7-8).

A REVIEW OF ADDRESSING MUSEUM CONSERVATION

Aspects of conservation and preservation have always featured in the broader field of museology since it is one of the main functions of a museum. However, over the years these have diminished and currently there are few academic training courses in South Africa, including the African Programme in Museum and Heritage Studies, postgraduate Diploma (University of the Western Cape), Postgraduate Diploma in Museum and Heritage Studies (University of Pretoria, to be discontinued as of 2018), BSocSci Honours Heritage and Museum Studies (University of Pretoria), Honours in Curatorship (University of Cape Town), and the Post Graduate Diploma: Museum and Heritage Studies (University of Cape Town). These post-graduate courses are run over the course of a year and include brief and superficial introductions to the current trends in heritage conservation and guidelines for preservation and collections care. The paucity of local conservation training options was raised in a 2008 heritage sector audit commissioned by the National Department of Arts and Culture (DAC 2008), which concluded there is a great need to develop multiple avenues for the training of conservation technicians, conservation managers, and conservators (De la Rey 2015:6).

Nonetheless, over the years there have been efforts to develop the field of conservation in South African academia beyond short course presentations. In the 1990's, the South African Museums Association (SAMA), was involved in redeveloping the National Diploma in Museum Techniques run by the Cape Technikon into a distance learning qualification, namely the National Diploma in Museum Technology, offered by the Technikon RSA. Members of SAMA were involved in compiling lectures and these included conservation

techniques. The Technikon itself ran basic courses in chemistry, laboratory techniques and photography, which could add to the training of museologists (SAMA 2016:12-13).

Recognising the need for more focussed conservation training, the SAMA School of Conservation was launched in Pretoria in December 1994, followed by Cape Town. The school drew on local archaeological, museum and conservation expertise for its lecturing staff as well as liaising with the newly established South African Academy of Ceramics Conservation. The school presented short courses in conservation and related topics. However due to a paucity of teaching and training staff, as well as financial constraints within SAMA, the school was permanently closed down in 2000 (SAMA 2016:15). Additionally, due to a lack of support the Technikon RSA diploma course closed in 2001 after the completion of the Museology III and Conservation Techniques III exams (SAMA 2016:19).

The South African Academy of Ceramics Conservation, mentioned previously, is still in existence in Twee Riviere in the Eastern Cape and has been promoting conservation-restoration initially through regular short modular courses in ceramics conservation, and then later training in metals conservation, paper conservation and the conservation of stone and mortars from 1994 to 2015. Conservation skills were gained and honed through the attendance of a four-week introductory module, followed by week-long elective modules on some or other aspect of the chosen specialization such as airbrushing for ceramic conservation. Recently renamed The South African Institute for Heritage Science and Conservation, they have temporarily suspended the modular courses in favour of offering a fully-fledged and accredited one year, post-graduate technical diploma, commencing in 2018, in all four of its previously independent fields of study namely ceramics conservation, metals conservation, paper conservation and conservation of stone and mortars for the built environment. This private higher education course is aimed at developing conservation professionals with robust bench working or technical conservation skills, and has a strong commercial focus to emphasize aesthetic presentation and restoration intended for beyond the museum sector (McGinn, 2016d:1).

Sustainable funding sources, availability of academic staff, dedicated space and procurement of specialized equipment, materials and tools, as well as an interest in the study of heritage conservation have been some

of the challenges faced when attempting to establish conservation training programmes in the past. Although these challenges remain, a substantial development grant will now put the University of Pretoria in a more favourable position to address them in a sustainable higher education programme. In addition, changes in a broader South African context that include the promotion of heritage and its preservation are viewed as a continental imperative as expressed in the African Union's "Agenda 2063: The Africa We Want" (African Union 2015:7-8), as well as a national imperative in the National Development Plan and Vision 2030 (National Development Plan 2013), along with the recognition that conservation expertise is insufficient in South Africa (DAC 2008:52).

This promotion of heritage and the recognition of its fragility and loss has practical implications in policy changes which promote the need for increased conservation training. For example, the creation of heritage registers and accounting standards which require all state institutions to record their heritage assets and their associated monetary values, where the condition or state of conservation affects those values (National Treasury 2014:6). Conservation skills have been listed in the 2008 skills audit report (DAC 2008:77) as priority skills for development, although the same report acknowledges a lack of knowledge and skills development in the sector (DAC 2008:82). Therefore, to address this dire need and also as a result of the University of Pretoria's proactive collaborative and consultative approach, the University has agreed to commence with the drafting of a dedicated conservation curriculum framework in response to identified sectorial needs.

CONSERVATOR VS CONSERVATION TECHNICIAN

To argue for the training of conservators, for the purposes of this paper it is important to note the difference between a conservator and a conservation technician. Conservation technicians will have different skills sets and levels of knowledge in the core competencies of a conservator, as defined by the American Institute for Conservation of Historic & Artistic Works (AIC), but would generally require supervision or guidance from a conservator or conservation scientist in terms of technical analyses, the evaluation of known treatments or the planning of new treatments. Technicians tend to be specialists on a particular aspect of a material type, i.e. wood, paper, metal or ceramics, treatment type i.e. cleaning techniques or the de-acidification process or

other specific aspects of preventive conservation and collections care (AIC 2005).

According to the AIC, one of the main differences is the level of responsibility expected of a conservator versus that of a technician.

A technician would be expected to perform simple to advanced skills in hands-on work, laboratory preparation and the many other categories described in this document. While a technician or collections care specialists may be a good problem solver, the education, training and experience of a conservator provides the additional tools, advanced knowledge, and critical thinking to apply decision-making to issues that carry the responsibility of long-term preservation and of mitigating the risks to cultural property. Conservators have the necessary background in the science, the properties of materials, and the ethical and aesthetic issues, as well as in the legal ramifications that may result from decisions they make" (AIC 2005:3).

As Mariët Westermann from the Mellon Foundation remarked, "... a healthy conservation system is tiered, from the advanced research conservator to the great bench conservator to the passionate and well-skilled documentation specialist and conservation technician (Westermann 2015:4).

CONSERVATION AS A FIELD OF STUDY AT THE UNIVERSITY OF PRETORIA

Following the initial consultations and identification of stakeholders, a curriculum design workshop, was held by the University of Pretoria from 20-21 June 2016. The workshop gathered 13 selected conservators from various specializations and academics from different disciplines to share information, consult, and seek advice in building a curriculum framework taking into consideration the relevance, timing and importance (political, social, cultural and intellectual value) of this programme. The aim of the programme would be to prepare graduates to take up leading roles as professional conservators and conservation managers in the museum and heritage management environment (De Waal 2016).

Through the curriculum development workshop participants agreed that the University of Pretoria's strength lies largely in its strong research focus, which propels it towards the training and formation of conservators as defined previously, who will generate

new knowledge within both pure and applied research outputs. The University of Pretoria has therefore proposed a Master's degree which aims to produce future interventive conservators, conservation managers and collection managers. Such specialist skills will allow them to identify risk to collections, stabilize a variety of materials and attend to remedial treatments in their area of expertise.

The University of Pretoria's proposed Master's degree in Tangible Heritage Conservation is envisaged as a two-year, full-time master's programme with a focus on both generalist (breadth of exposure) and specialist (depth of exposure) training to transfer the necessary skills and knowledge required. Generalist training in conservation will equip students with the ability to deal with a wide range of materials in order to monitor, control, stabilize and preserve large and diverse collections. Depth of exposure would be achieved by means of the selection of an elective in a particular field of specialization such as the conservation of paper-based and archival collections. Teaching of compulsory and elective modules would take place in the first year, whilst the second year would be reserved for an extended compulsory internship and writing up of the mini-thesis and examination consistent with the requirements of a course work Master's as prescribed by the Department of Higher Education (DHET).

CORE COMPETENCIES FOR CONSERVATORS

The development of the new conservation curriculum framework was guided by the expected competencies to be fostered among the University's conservation graduates and the twelve core competencies of a conservator of the AIC were used as departure point (AIC 2005:5). As Seymour (2014:3) points out, this set of identified competencies is echoed in the definitions of the European Confederation of Conservator-Restorers Organisations (ECCO), the primary professional body in Europe, and by the Conservation Committee of the International Council of Museums (ICOM-CC).

These competencies, revised and updated regularly, refer to the understanding and assimilation of the following: conservation terminology, conservation history, ethics, philosophy, values and significance of cultural heritage and how this has changed and changes over time, history of technology and manufacture of heritage material. Students must be cognisant of issues arising from the ways in which heritage can be accessed

or used, i.e. health and safety policies and regulations with regards to the practice of conservation. They must possess a working knowledge of scientific principles as they apply to conservation including how to access and assess scientific literature;. Students should possess working knowledge of scientific and analytical techniques for the identification of materials and/or determining changes in these materials as well as recognize and understand the factors and mechanisms that may chemically and physically change, damage or destroy cultural heritage and how to counteract these in order to promote the longevity of cultural heritage. Students must be fluent in the mitigation of deterioration and damage through the formulation and implementation of policies and procedures for appropriate environmental conditions, handling and maintenance procedures for storage, exhibition, packing, transport, use, including integrated pest management, emergency preparedness and response, and reformatting/duplication. In addition they must be fluent in examination and documentation techniques and recognize the value of thorough recording of cultural heritage.

These are all the core competencies to be fostered in graduates who wish to be conservators and conservation managers, and will appear to varying degrees in conservation technicians (AIC 2005:2). As illustrated by ECCO (2011:19-21), only once these fundamental competencies have been acquired can graduates call themselves conservators and truly design, evaluate, adjust and carry out treatments, either preventive or remedial on heritage material with the knowledge that their decision-making will follow best practice and ethical guidelines for preservation and conservation.

The actual interventive treatment known as remedial conservation in a museum setting or 'restoration' in commercial environments is only one small part of the conservator's role and responsibility. Restoration aims to prolong the expected life of objects through the deliberate alteration of the chemical and/or physical characteristics of cultural heritage, remedial action is the last course of action when the partial or complete loss of the object is to be expected as a result of non-action. The Master's degree in Tangible Heritage Conservation is thus not a programme which aims for training in 'restoration' but one which aims for long-term preservation by means of stabilization and minimal intervention to heritage objects.

BUILDING THE CURRICULUM IN TANGIBLE HERITAGE CONSERVATION

With the curriculum framework in place, the programme content was further developed with input from heritage institutions such as museums, universities, libraries, archives, corporate bodies, private practice conservators, indigenous knowledge practitioners and the South African government. Guiding the curriculum content is the premise that in order for an object or artefact to be conserved, the conservator needs to have an understanding of the object's history, provenance, and the material composition of its various components. Additionally, the conservator is required to know how these materials interact with one another, deteriorate as a result of those interactions as well as understanding the consequences of interactions within the environment. This complex series of processes requires knowledge from a variety of fields including geology, entomology, architecture, archaeology, anthropology, art history, materials manufacturing processes, the properties of materials, chemistry and physics as well as others, depending on the artefact, collection or site one is working with. The exposure to so many fields of study interwoven in conservation explains the lengthy duration of some international programmes.

In response to this knowledge need, the proposed Master's degree at the University of Pretoria has a number of core modules including chemistry for conservators, research methodology, design and analytical techniques used in conservation, material science as well as an elective module in a field of specialization. Currently it is proposed to roll out the programme with a specialization in either paper-based and archival materials, or the conservation of polychrome surfaces. Both categories of specialization are broad in response to the South African context where institutions have large collections consisting of different materials.

In order to understand how objects deteriorate, students will learn how they are manufactured. For example, a specialization in paper-based and archival collections would see graduates learning about the history of paper-making both locally and internationally and how paper developed into scrolls, manuscripts and bound volumes. Students will be exposed to the African origins of the book and manuscripts, paper manufacture and trade throughout the continent, and indirectly how paper has allowed for some narratives

to be included or excluded. Students will be exposed to the manufacturing processes of and resulting types of paper and how their physical, chemical, as well as mechanical properties and characteristics all affect the ageing processes of paper and paper-based collections. The addition of inks and paints on manuscripts, in books and on ephemera introduces more materials on the paper substrate and contributes to complex interactions between materials that can influence ageing and accelerate decay.

In order to assimilate this extensive theoretical knowledge, the curriculum needs to balance knowledge with practice and it is envisaged to present theoretical components, interspersed with hands-on experiential learning. As Seymour (2014:10) points out:

Students need to be given declarative knowledge (facts) at an early stage in their training. This information needs to be swiftly put into practice or it stagnates or disappears from their cognitive processes. Thus procedural knowledge (knowing how) must be given equal weight to declarative knowledge during the initial semesters of an academic programme (Seymour 2014:10).

Only once these theoretical concepts have been assimilated and initial manual skills attained, can they be further practised and honed, first by means of structured supervision as part of the coursework, and again through an extended supervised practice placement period in the second year.

In place of traditional examinations, it is envisaged that student progress will be continuously monitored and assessed through the completion of tangible outcomes such as devising research proposals, doing a scientific examination of materials and technical art analyses, written reports, oral presentations and advocating for conservation through outreach projects within the community. The documented internship forms part of collections-based research and is the practical component of the mini-dissertation in a chosen field of expertise, as required by the Department of Higher Education and Training (DHET) for a Master's degree by coursework.

With the proposed Master's curriculum designed, attention was focussed on the articulation and placement of the degree within the heritage sector. In order for students to be adequately prepared for entrance into the Master's degree, it was realised

that vertical articulation had to be improved at the University of Pretoria. The main feeder course, i.e. the Post-Graduate Diploma in Museum and Heritage Studies, which is one of the few existing and recognised museological qualifications in South Africa, had to be completely overhauled. The diploma was developed in the 1970s and although content has somewhat changed over the years along with the changing of lecturing staff, it has mostly remained static. This course needed to be reconceptualised in order to align it with current museum trends and requirements in the new South African post-apartheid landscape. The post-graduate diploma has been re-shaped as an Honours degree to include critical re-examination of what constitutes a museum and the politics of heritage, particularly with South Africa's contested past which influences both collection and exhibition trends, as well as public narratives.

The exposure to heritage preservation and the preventive conservation of heritage material and collections has also been increased, and a third of the degree will focus on the preservation of materials and preventive conservation. The Honours degree in Heritage, Museums and Preservation will thus still enable the traditional training of museologists, curators, collection managers and heritage practitioners to accession, document, curate and research collections. But the Honours degree, will also adequately prepare students enrolling for the Master's degree in Tangible Heritage Conservation to have a robust point of reference within current heritage theory, practice and debate whilst also having sufficient understanding in preventive conservation so that they can guide the preservation efforts of their institution and champion the case for conservation.

On an academic level, the Master's degree is central to the University's vision as it encompasses new creation of knowledge, cross-pollination between the arts and the sciences, internationalization, and speaks to transformation and calls for decolonization of the curriculum. Outside traditional museum settings there is a worldwide tendency to preserve and care for heritage for the purposes of continuity (Kreps 2003:1).

Africa is no exception and there is a wealth of African knowledge and know-how in terms of both the manufacture and care of artefacts (Bandarin 2009:vii), knowledge that is for the most part undocumented (DAC 2014:22). Traditional methods of materials care have proven their efficacy for preserving heritage in

Africa, which has a different context and different challenges to those of the northern hemisphere. Furthermore, the field of conservation in South Africa is under-represented in the publication record and although certain conservation, and indeed restoration, efforts and projects are carried out, in many cases these are either not recorded or the information is not disseminated and local conservators thus have little to guide them in their efforts. Having academically trained graduates with a strong research focus should alleviate some of these challenges and allow for locally relevant publications based on collections in Africa, African challenges and possible solutions for our particular context.

It is hoped that with the roll-out of the new Honours degree in Museums, Heritage and Preservation as well as the Masters in Tangible Heritage Conservation the University of Pretoria will be in a position to offer additional accredited certificate courses for continuing professional development. This would allow much needed capacity building for current museum incumbents who either do not have the time nor the academic background to sustain enrolment in post-graduate academic studies. As noted in the DAC skills audit report of 2008, "... in some institutions staff members who performed conservation and restoration duties, typically had education levels below matric [Grade 12]..." (DAC2008:52), and a process of recognition of prior learning (RPL) and vocational training could be beneficial to capacity building in the sector. The building of a curriculum is an organic process, particularly when developing a new field of study. It is fully expected that the envisaged conservation programme will be adjusted after its initial implementation to ensure that it truly meets the demands of the museum and wider heritage sector and is also responsive to changes in both the higher education and evolving heritage environment in South Africa.

CONCLUSION

Almost a decade after the Department of Arts and Culture initiated a skills audit of the heritage sector, very little appears to have changed and inadequate financial resources lead to the deterioration of cultural repositories thereby endangering the collections they hold, conservation facilities are no longer functional, expertise is dwindling due to lack of succession planning and there is still insufficiently trained and qualified staff to address preservation and conservation needs. At the core of many of these challenges is a lack of local

academic training in conservation theory and practice. An initial Mellon Foundation questionnaire and subsequent Art Conservation workshop highlighted the need for academic conservation training, and questioned what format this training should be to meet South Africa's needs.

The University of Pretoria proposes to assist in remedying this situation by upgrading an existing diploma to a fully-fledged Honours degree as well as the establishment of a new Master's degree in Tangible Heritage Conservation, a first in South Africa. In collaboration and consultation with a number of local and international stakeholders, the proposed Master's degree is set up as a fulltime, two-year programme with a strong emphasis on sound decision-making through the acquisition of theoretical and applied knowledge within a broad spectrum of specialization in archival and associated collections or polychrome surfaces. The programme is aimed at the training and fostering of conservation professionals, managers and practitioners who will fill the knowledge gaps on South African heritage and its preservation for the sustainable transmission of knowledge and ideas to shape and transform South African society.

Since the programme has been purposefully designed to meet the sector's needs as identified by the National Department of Arts and Culture, it is hoped that the small intake of graduates will be eventually absorbed into national museums, libraries, archives and other academic institutions to form regional hubs for conservation and preservation practice, advocacy and on-the-job training. In a time of identity construction, the importance of sustainable conservation embedded in local context lies in the recognition and deepening of our respect for cultural diversity, while promoting the responsible stewardship of South African tangible heritage collections so that it becomes an imperative for nation building and social cohesion.

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