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**Institutionalizing Moving Image Archival Training:
Analyses, Histories, Theories**

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Introduction

Philipp Dominik Keidl & Christian Gosvig Olesen

To speak of moving image archiving as a professional field with practitioners who have completed vocational training is a recent phenomenon. For decades, after the emergence of film collections and archives, which had been created by cinephiles in the 1920s and 1930s, the training of moving image archivists happened on the job—most often without prior formal training. It could be argued that moving image archiving began to show signs of a professional codification in the early 1970s, when various key organisations sought to define best practices and develop professional standards and shared vocabularies via professional journals, manuals, inter-institutional collaboration, annual conferences, workshops and educational initiatives. For instance, if we take the activities of the International Federation of Film Archives in the early 1970s as emblematic, it is illustrative of this development that FIAF began publishing its FIAF Information Bulletin in 1972 (since 1993 the Journal of Film Preservation) and organized its first film preservation summer school in 1973. Moreover, other significant developments in this regard were UNESCO's acknowledgment of the need to preserve moving images at their General Assembly in 1975, which resulted in the penning of the document Recommendation for the safeguarding and preservation of moving images and granting FIAF NGO status in 1980. Ten years after, in 1990, the first university-based MA degree in film archiving

at the University of East Anglia was inaugurated. Yet, in spite of an increased codification and professionalization from this moment onwards, it was far from a given in the mid-1990s that moving image archiving was considered an independent field of study and profession. This was emblematized in the circumstance that one of the leading figures in the international audiovisual archiving community, film preservationist Ray Edmondson, penned an essay on the current state of film preservation which with its title raised the fundamental question "Is Film Archiving a Profession?" (Edmondson 1995). What could be answered with a firm yes nowadays was a more than justified inquiry twenty years ago. While the need for the organized collection and preservation of moving images had been widely approved and instigated by then, the systematic training and education of archivists had not. Archivists still acquired their skills and knowledge predominantly through hands-on experience at their workplaces and widely distributed codes of ethics and "how to" guidelines. Meanwhile, university-based training was limited to occasional seminars, local symposia, and informal internship programs - predominantly organized by FIAF, FIAT (International Federation of Television Archives), IASA (International Association of Sound Archives), ICA (International Council on Archives), and IFLA (International Federation of Library Association, and financially supported by the UNE-

SCO (Lukow 2000: 137). Today, the situation has drastically changed. Although the University of East Anglia has discontinued its archival MA degree, numerous specialized degrees emerged since the late 1990s and early 2000s that prepare their graduates to work with all kinds of moving images in diverse institutional settings, ranging from local and national archives and museums to software developers and media corporations, among others.

This institutionalization of university-based archival training stemmed from an increased interest in moving image heritage, the expansion of archival networks, and the need to equip students with applicable expertise for careers in the cultural industries. They also emerged in a publicized awareness of the alleged crisis of the moving image in times of the increasing digitization of cultural heritage (Cherchi Usai 2001; Elsaesser 2016). Echoing concerns over the possible—if not invertible—"death of cinema" stimulated scholars to position film within broader conceptual frameworks of media, and encouraged governments to increase funding for preservation programs and expand public access to archival holdings (Frick 2010). Thus, archival training programs developed at the juncture of widely diverse institutional and public realms and disciplines, and have become sites where these different forces meet to (re)imagine the role and study of moving image heritage in a digital age.

Looking back at this development, it is our hope with this issue to consider and reflect on the field's status today and yield critical insights into its histories and current ramifications. In line with previous research on the history of film archival training of Edmondson and Gregory Lukow, as well as recent studies on the history of film studies (Polan 2007; Wasson and Grieveson 2008; Gauthier 2014), the issue aims to historicize and investigate the material, intellectual, and institutional history of archival training within and beyond university settings, while also offering an overview of new directions. Ultimately, the aim is to develop a better understanding of the social, political, and cultural forces that have shaped and defined archival training in the past and present and nourish continued critical reflection. More than the institutionalization of established "best practices",

archival training's different departmental homes within the humanities, social sciences, and sciences indicate differences in ontological and epistemological conceptualization of moving images and their role in culture. As such, this issue asks how archival training theoretically and practically impacts archives as sites of study as well as central spaces where moving image culture is collected, preserved, and displayed. Prominent practitioners and theorists provide answers to these questions by offering insights into the multifarious turns and directions that the field has taken in the past few decades, and where it may go in the future.

We have grouped the contributions to this issue in three thematic sections. In the first section, titled "Is Film Archiving a Profession Yet? Reflections 20 years on," Ray Edmondson revisits his 1995-piece in his contribution with the same name, taking the cue from his argument in his Film History essay. Back then, Edmondson defined a profession as "a field of remunerative work which involves university level training and preparation, has a sense of vocation or long-term commitment, involves distinctive skills and expertise, worldview, standards and ethics. It implies continuing development of its defining knowledge base, and of its individual practitioners" (Edmondson 1995: 245). However, while such a definition acknowledged the emerging standards, training methods, and specialized knowledge among film archivists, Edmondson's argues in his contribution that this did not automatically mean that people working in the field personally identified as film archivists. He traces how such an identification as an audiovisual archivist increasingly gained a foothold in the last 20 years through the further development of archival training and new career profiles that developed alongside the ongoing development and theorization of skills, methods, standards and codes of best practice. His article offers a detailed overview that highlights the achievements as well as the remaining gaps that have defined the field in the last twenty years and still represent significant challenges.

In this section, we also present the contributions of a number of scholars and archivists who we invited to present their own perspectives on the

development and current state of moving image archiving as a profession and education in response to Edmondson. Caroline Frick sheds light on the potential downside and exclusive dynamics of increased professionalization and institutionalization in "What Price Professionalism?" In particular, Frick expresses fears over the construction of an ivory tower, which shields off the work and contribution to audiovisual heritage by amateurs working outside established institutional and educational infrastructures. Raising the question who is able to define themselves as a film archivist, and on what grounds, she argues against institutionalization and for a continuing evolution and migration of the profession. A more critical perspective is also present in Benedict Salazar Olgado's "What Do We Profess To?" in which he adresses insufficient infrastructure for audiovisual heritage on the Philippines. He also emphasizes that the professionalization of film archiving is often related to high financial costs, which might lead to marginalization of those who cannot afford the costs or would not be able to cover student loans with low prospective salaries. And, along the lines of Frick's argument, he reminds readers that especially in developing countries individuals with any formal education or training carry out valuable work.

The section continues with "Interdisciplinarity, Specialization, Conceptualization. Archival Education Responding to Changing Professional Demands" by Eef Masson and Giovanna Fossati. Masson and Fossati's reflection highlights the emergence of a seemingly paradoxical demand for a simultaneously interdisciplinary and specialized profile for future moving image archive professionals as a consequence of digitization, as well as the constant need for developing new conceptual and methodological models for old and new media technologies. Finally, the section is rounded off with a contribution by Caroline Yeager, offers a historical analysis of the institution and the development of its own training program from the 1990s onwards in "The Jeffrey L. Selznick School of Preservation: Changing the Field."

The peer review section of the issue contains three highly diverse pieces on film pedagogy and education at the Austrian Filmmuseum, the University of Udine in Italy, and future perspectives for interdisciplinary exchanges in the profession. Each piece branches out to make fruitful connections to pieces in the issue's first and final sections. Alejandro Bachmann's article "Multiplying Perspectives" elegantly makes the case for a cinephile film pedagogy which aims at bestowing the experience of cinematic mystery and astonishment which museum presentation and curation can produce in film students into academia. Focusing on the Austrian Filmmuseum's tradition and curatorial philosophy and drawing on film scholar Alain Bergala's film pedagogy, Bachmann argues that by confronting students with the material aesthetics of film in a museum setting without the demand for immediate explanation, analysis and interpretation can contribute to multiplying perspectives based on personal experiences. By discussing the Filmmuseum's work with film students in great detail, the article makes a highly compelling argument for enabling the sometimes conflicting epistemological foundations of film museums and universities to productively work together.

Simone Venturini's article "Learn then Preserve" offers an in-depth history of moving image archiving education at the University of Udine. It discusses the role of key foundational figures—in particular Professor Leonardo Quaresima and the Bolognese school of film studies—in forging collaboration between universities and archives in Italy, while detailing the institutional infrastructure of moving image archiving education in Udine and its collaboration with local post-production (CREA) and restoration facilities (La Camera Ottica). By the same token, Venturini's piece also discusses the epistemological foundations of Italian film restoration theory, highlighting its focus on film philology—or Filmologia as it is also referred to in Italy (not to be confounded with the early French film studies tradition of filmologie)—which proposes a historical approach to the study of filmic sources with a strong emphasis on their material characteristics and the ways in which these are conditioned by their respective distribution histories and archival lives. As a theoretical formation which is yet to be fully discovered in the Anglophone literature on film archiving res-

toration and philosophy, we hope that Venturini's history of the Udine program can serve as an entry point for more scholars and archivists to familiarize themselves with it.

Adelheid Heftberger's article, "Archival Promises: The Changing Landscape of Film Archiving and How Study Programs Can Contribute" makes, much in line with Frick's, Masson's and Fossati's contributions, a case for future moving image archivists to acquire an increasingly interdisciplinary skill set based on collaboration within the GLAM sector and current digital humanities practices. As Heftberger argues, digitisation has given rise to new and highly diverse forms of metadata creation and sharing online, which necessitate that film archives develop better insights into sourcing data in new ways and integrate them into their catalogues in order to rethink their ways of creating filmographic data. In this respect, although—and as Heftberger stresses—film archives and film and media studies more broadly may still be struggling with legitimising their professional identities, the time seems ripe for exploring interdisciplinary collaboration with other types of cultural heritage institutions, to be able to manage and benefit from contemporary data management and curation practices in more dynamic ways.

The forum section, which concludes this special issue, contains reflections on the histories and philosophies of four of the programs which have been setting the stage for moving image archive training in Europe over the past three decades, a report on NYU's Archival Exchange Program (APEX) and a history of moving image archiving in Italy.

Focusing on the creation of the University of Amsterdam's MA Preservation and Presentation of the Moving Image launched in 2003, founder Thomas Elsaesser offers a succinct discussion of the intricate institutional, personal and political processes which play a part in establishing a specialized educational program in moving image archiving in his contribution "A Look Back - The Professional Master's Programme in Preservation and Presentation of the Moving Image and How it Came to Amsterdam." Reflecting on his professional journey from the UK to the Netherlands, Elsaesser details how, among other things, recent

restoration initiatives by the Nederlands Filmmuseum (now EYE Filmmuseum)—in particular those involving the museum's Jean Desmet Collection— convinced him to move to the Netherlands to forge an interdisciplinary amalgamation between audiovisual archiving, media historiography and experimental practices of reuse. Giving a rare glimpse into the backstage operations of academia and university politics in Europe, Elsaesser's contribution offers more than a history of a particular program by also providing useful coordinates for scholars who aspire to establish new educational initiatives.

The forum section also contains three contributions which testify to the increasingly vibrant, rich and diverse variety of moving image archiving programs which have emerged in Germany in recent years. Ulrich Ruedel and Martin Koerber's "The Materiality of Heritage: Moving Image Preservation Training at HTW Berlin" details the curriculum and philosophy of the Conservation and Restoration curriculum at the Hochschule für Technik und Wirtschaft Berlin, founded in 1993. They highlight the program's unique mix of scientific and philosophical approaches; from cutting-edge chemistry research in conservation science to classical conservation theory. "Minding the Materiality of Film: The Frankfurt Master Program "Film Culture: Archiving, Programming, Presentation,'" collaboratively written by Vinzenz Hediger, Sonia Campanini and Ines Bayer, details the program's pre-history, its current teaching philosophy and collaboration with the Deutsches Filminstitut. Taking the cue from the film preservation philosophy of the George Eastman House's Senior Curator Paolo Cherchi Usai, the article reflects on what it presents as the "Cherchi Usai paradox," namely the circumstance that "a film is an ephemeral medium in the sense that it can only produce cultural meaning at the price of impairment and ultimate destruction of its material base." Addressing this paradox, the piece makes the case for strengthening the ties between academia and archives further, eloquently presenting its argument in a poly-vocal style, which underlines the distinct perspectives and experiences of the piece's three authors. Finally, Oliver Hanley's contribution "Upholding Tradition: The MA

Program in Film Culture Heritage at the Film University Babelsberg KONRAD WOLF," provides an in-depth discussion of the most recent of the three German programs discussed in this issue, detailing the program's foundations and prospective activities.

Offering a counterpoint to the forum section's institutional histories, which are framed primarily within a national context, Juana Suárez and Pamela Vizner's contribution focuses on the Audiovisual Preservation Exchange (APEX) program. While formally hosted by New York University's MA Program in Moving Image Archiving and Preservation, APEX is a cross-border initiative which fosters non-hierarchical exchanges of skill sets and networking between NYU students and preservation initiatives in Latin America and Africa through trips, workshops and digital humanities projects. Reflecting on the opportunities for sharing experience and knowledge within digital environments in an increasingly globalized world, Suárez and Vizner's report highlights—in line with several of this issue's contributions—the interdisciplinary nature of their work and the multifarious groups it involves.

Finally, Rossella Catanese's piece "Learning From the Keepers: Archival Training in Italian Cinematheques," which concludes the forum section, can be read as a companion piece to Simone Venturini's history of the Udine program. Complementing Venturini's specific focus on the Udine program, it offers an overview of the Italian landscape of moving image archive education and its history— from the beginning of film studies in Italy to the current situation—while also outlining the contingencies of the institutionally complex funding environments in which Italian training programs must operate, and the remarkable achievements they make despite this. As in the case of Venturini's piece, we are particularly pleased to be able to include this contribution in our issue because of the insights it gives into the Italian landscape of moving image archiving, which we feel deserves a more prominent focus in Anglophone discussions.

With the sheer diversity of approaches, histories and philosophies reflected in this issue it seems difficult to synthesize one simple answer to the question of what moving image archiving is and should be today. Yet, if one thing transpires from the issue's contributions, it is the apparent urgency of renewed interdisciplinary collaborations within academia and moving image archives, especially as moving image archiving has become a profession and increasingly needs to reconsider its skill sets because of digitization. In 2018, as moving image archive education has become institutionalized and can draw on a great variety of advanced theoretical formations and is characterized by a high level of professional codification, it seems to have gained a confidence which allows it to open up to other disciplines, without necessarily having to fear losing its hard-fought foundation.

With this in mind, it seems fitting to end our introduction by echoing a slightly provocative plea for interdisciplinarity targeted at the discipline of history, penned in the early 1940s by Marc Bloch (1984)—one of the great historians of the twentieth century—as a reminder of how impulses from other disciplines and outsider perspectives may enrich and challenge our field productively. As Bloch wrote in a appeal to historians seeking to carefully define the boundaries of their field through standardized practices too rigorously in order to legitimize their field:

> Are we then the rules committee of an ancient guild, who codify the tasks permitted to the members of the trade, and who, with a list once and for all complete, unhesitatingly reserve their exercise to the licensed masters? [...] Each science, taken separately, find its most successful craftsman among the refugees from neighboring areas. Pasteur, who renovated biology, was not a biologist – and during his lifetime he was often made to feel it; just as Durkheim, and Vidal de la Blache, the first a philosopher turned sociologist, the second a geographer, were neither among them ranked among licensed historians (21).

Taking Bloch's ethos as a coordinate for the future development of moving image archive education, we hope that this special issue of Synoptique will encourage readers to explore and discover new directions and open up to new perspectives—some

of which have been outlined by the contributions we present—while remaining rooted in a firm, critical understanding of the field's origins.

On a final note, we would like to express our heartfelt gratitude for the hard work of the Synoptique managing editors Philippe Bédard, Giuseppe Fidotta and Patrick Brian Smith as well as to the peer reviewers who generously devoted their time to commenting on and offering constructive input on the pieces for the peer review section.

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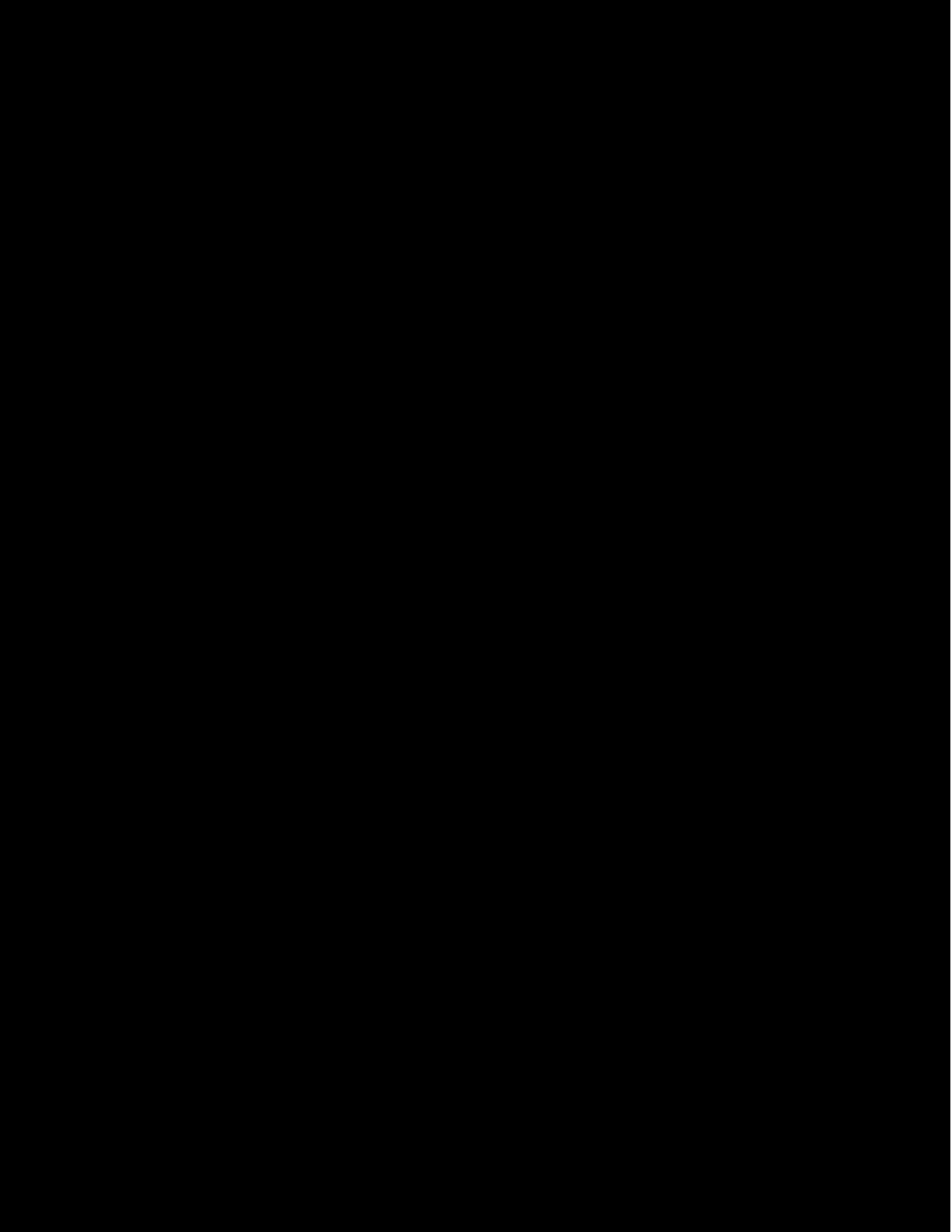
IS FILM ARCHIVING A PROFESSION YET?
Reflections 20 years on

Is Film Archiving a Profession Yet?

A Reflection 20 Years On

Ray Edmondson

In 1995 the journal *Film History* published my essay "Is film archiving a profession?" (Edmondson 1995a). I have been asked by the editors to revisit that question from a contemporary standpoint. In that article, I ventured the following definition:

> A profession is a field of remunerative work which involves university level training and preparation, has a sense of vocation or long term commitment, involves distinctive skills and expertise, worldview, standards and ethics. It implies continuing development of its defining knowledge base, and of its individual practitioners.

It was a definition with which I, and many of my self-taught colleagues in the field, could identify (Magliozzi 2003). The article explored each of the topics raised in the definition in order to respond to the question posed by the title. The answer to the question at the time was—yes, and no.
The field certainly attracted people with a passion and a sense of commitment. Distinctive skills, expertise and standards were clearly apparent. A world view or views had evolved through its signature international federations—FIAF, IASA, FIAT and AMIA[1]—and their interaction with UNESCO. An ethical framework existed but had yet to be codified. The first university course had appeared[2] and complemented the seminars, summer schools and short training courses that the federations had organised over the past two decades.

But this did not automatically mean that people working in the field personally *identified* as film archivists—or for that matter, sound or television archivists, preservationists, curators or whatever. Many preferred to identify with the professions in which they happened to hold formal qualifications, such as librarianship, archival science, materials conservation and museum curatorship.[3] These professions were widely and formally recognised by governments and other employers, and there were pay scales attached to them. There was no comparable recognition for something called a film archivist.

The World of 1995

It seems a long way from our digitally-dominated environment today, but in 1995 the digital revolution was still in the future, and our collecting and management preoccupations were with the physical realities of film, analogue audio and video tape and vinyl discs. The advance guard of the revolution, the compact disc (CD), introduced in 1982, was making its presence felt, and from a preservation viewpoint it was proving a problematic medium. The possibility that digital formats might actually usurp the traditional audiovisual media as the mainstay of production and dissemination, and therefore of archival preservation and access, if it was seriously entertained at all, was a paradigm shift that seemed fanciful.
On 27 October 1980, UNESCO's General Con-

ference had adopted the *Recommendation for the Safeguarding and Preservation of Moving Images,* the first international instrument to recognise the cultural importance of preserving films. It referenced the need for formal training in their safeguarding and restoration, and it called for cooperation and coordination among the organisations tasked with preserving the world's audiovisual heritage.

Accordingly, the following year, UNESCO brought FIAF, IASA and FIAT, together with ICA and IFLA,[4] into regular discussion with each other at what was called the Round Table of Audiovisual Records, thereby introducing the term "audiovisual" as a professional descriptor. The forum was not without its internal territorial rivalries, but at least UNESCO made the players talk to each other.

It was this grouping that ultimately led to the publication in 1990 of the UNESCO document *Curriculum Development for the Training of Personnel in Moving Image and Recorded Sound Archives*—the first major publication to outline a training vision specifically for the audiovisual archiving field. As Gregory Lukow (2000) wrote in his historical survey of the education of moving image archivists:

> [there are] a number of underlying concepts and assumptions embedded in the very language of the dialogue. For example, …the development of archival skills and knowledge sets was described, for the most part, as a matter of 'training' rather than 'education', be it post-secondary or continuing. Similarly, the individuals who needed to learn these skills were usually considered to be the 'staff' or 'personnel' of archives, rather than, simply and more expansively, 'students'.
>
> The structure and scope of the knowledge to be imparted was most often described in terms of a 'technical' or 'scientific' practicum that focuses on a range of specialised skills, rather than as an 'academic' model with curricular and degree offerings that combines hands-on training with broader, interdisciplinary requirements (137).

Lukow goes on to relate how the publication of this document, despite its limited focus on internal staff training, did assert the value of cross-disciplinary education and all-round training within all areas of archival practice, as opposed to strict divisions of labour along lines of technical specialisation.

A seminal moment, in the same year, was the inauguration of the first university-based, graduate level course offering a specific qualification in film archiving. This was at the University of East Anglia in Norwich, England. It was available as a one-year option in the university's long standing MA programme in Film Studies. Other courses would follow, a subject I turn to later in this article.

Although a historical analysis of professional literature is beyond the scope of this article, a passing reference to its state around 1990 is necessary. The fields of librarianship, archival science, museology and conservation science were well established professions supported not only by graduate level university courses around the world, but also by a considerable professional literature. This diverse resource delved into the "how to" aspects of running libraries, archives and museums as well as the underlying theories, ethics and concepts on which professional practice was built. Monographs, journals, dissertations, and reference manuals offered more information than any individual could absorb in a lifetime.

Literature on film—cinema studies, film history, criticism and analysis, technical specifications, biographies and so on—was even then extensive. Periodicals ranged from the serious to the populist: publicity was and is the life blood of the film industry. In the other audiovisual fields of radio, recorded sound and television, much the same could be said. While cinema and media studies had by then found their way into universities as a legitimate field of study, in many countries it was still a young discipline.

Against this background, however, the archiving of the audiovisual media received relatively limited attention in the literature. If it appeared in the professional literature at all it figured as something of a footnote, each profession viewing the media through its own conceptual frame of reference. In film literature, the realities of film survival and the practicalities of preservation seemed a long way from the thoughts of most writers. What the film or sound archivist had to fall back on, therefore, were the journals and occasional publications of FIAF, IASA and other bodies, like the American Film Institute, which had now entered the field. This comparatively meagre resource tended to concentrate on historical, technical and practical issues, such as copying, storage and collection management. They filled a very real need, but it was not broad enough to support an identifiable profession.

Developing a Philosophy

In 1990, UNESCO had made a start by releasing a curriculum for the training of moving image and recorded sound archivists. But as Greg Lukow points out above, it implied the need for a further step from "technical training" for archive staff into the broader notion of "education" in the fullest academic sense.

Over the next few years, a small circle of film and sound archivists around the world saw the gap that needed to be filled and began discussing how to do it. Styling themselves as AVAPIN (Audiovisual Archiving Philosophy Interest Network), and using fax and snail mail in those pre-internet days, they began "to ponder their identity, image and professional affiliations, to consider the theoretical basis and ethics of their work, and to face practical issues of training and accreditation" (Edmondson 1998, iii). Eventually the corresponding group grew to over 60 participants. It fell to me, in consultation with a subset of this group, to develop these interactions into a consolidated whole. On the way, I contributed some articles to professional journals on the topic, including the *Film History* article mentioned at the beginning of this essay (Edmondson 1991, 1992, 1995a, 1995b, 1995c, 1996).

A Philosophy of Audiovisual Archiving (Edmondson 1998), as the resulting book came to be called, had a long gestation, as draft texts were critiqued at workshops during the annual conferences of FIAF, IASA, FIAT and AMIA in 1994 and 1995, as well as being included in the early curricula of courses at George Eastman House, Rochester, USA and the University of New South Wales, Sydney, Australia. The book was finally published by UNESCO, in English, French and Spanish language versions, in 1998.

After such extensive preparation and consultation one might assume that the book would be widely embraced as filling a clear need. Yet, at least within the professional associations, views were decidedly mixed. Some welcomed it. Others saw it as a pointless exercise in navel gazing, consuming valuable time and effort when film and sound archives faced huge practical backlogs of preservation and collection work. Indeed, I was expressly forbidden by my employer, the National Film and Sound Archive of Australia, to spend any paid "work" time on drafting the final text: it had to be done in my own time, after hours.

In addition, because the book was about film AND sound archives, and treated both as part of a single profession called audiovisual archiving, I discovered I was a sitting target for the metaphorical slings and arrows of both professional camps. From today's viewpoint, it may seem incredible that "film" and "sound" archivists could engender mutual territorial hostility, but I actually worked in an institution where this had been a constant feature of corporate life! I acknowledge that for some, it raised deep seated and lasting issues of personal identity.

This rivalry is amply illustrated in a letter from the then FIAF Secretary General to two of his colleagues in December 1996:

> In compiling [a tentative draft for a FIAF Code of Ethics] I have drawn on the work done by Ray Edmondson in his work towards 'A Philosophy of Audiovisual Archiving'. I know that I am in a distinct minority in the FIAF EC in being interested in the work that Ray is doing—and I recognise that his IASA/Audiovisual links make him "tainted" in some people's eyes—but I do sincerely believe that what he has started is potentially valuable. Indeed, you could argue that when we have begun to talk about a FIAF Code of Ethics we are really only catching up to a place he passed through some years ago (Smither 1996).

To convey the flavour and intent of the *Philosophy*, I summarise some introductory thoughts from the 1998 edition. I reiterate that, in these pre-digital times, films, video and audiotapes, vinyl discs and CDs were all physical objects and it was much easier to differentiate between the respective "stock in trade" of film archives and sound archives. The digital convergence of the audiovisual media was still to come:

"This book] adopts the stance of UNESCO in conceiving of audiovisual archiving as a […] single profession with internal plurality and diversity […] It follows that it is not seen as a specialised subset of an existing profession" (Edmondson 1998, 3).

While acknowledging that audiovisual archiving is closely related to the other "collecting" professions, such as archival science, librarianship and museology, it was argued that its philosophy arises from the nature of the audiovisual media, rather than by automatic analogy from those professions. So the book tries to document what is actually the case,

rather than invent or impose theories or constructs: to be descriptive rather than prescriptive. Similarly, it tries to describe the audiovisual media in terms of what it is, rather than what it is not, and hence avoids phrases like "non-book," "non-text," or "special materials"—terms which imply that one type of material is "normal" or "standard," while everything else, by being defined in reference to it, is of lesser status.

The book goes on to discuss definitions, concepts, worldviews and terminology that are seen to define the profession, and then moves on to the ethics of institutional and personal behaviour.

Despite the initial doubts, the passage of time has vindicated the publication. A revised edition was published by UNESCO in 2004, and a third edition—updated for the "digital age"—in 2016. In all the various editions of the book have been published, or are currently being translated into, a total of twelve languages.[5]

About the CCAAA

The Roundtable of Audiovisual Records, established by UNESCO in 1981, had continued to meet regularly as a discussion forum. But by 1999, both UNESCO and the participants had recognized its need to become a more proactive body, shaping policy in the audiovisual archiving field, and embracing lobbying for greater preservation efforts worldwide. To accomplish this it was reconstituted as the Co-ordinating Council of Audiovisual Archives Associations (CCAAA) in 2000, and new members were later added. These were AMIA and SEAPAVAA in 2002, ARSC in 2007 and FOCAL in 2011.

If CCAAA is now the peak body of the audiovisual archiving profession, its opposite numbers are ICA (archival science), IFLA (librarianship), ICOM (International Council of Museums) and ICCROM (International Centre for the study of the Preservation and Restoration of Cultural Property). These four bodies are large, centrally organised, have a permanent staff and secretariat, huge global constituencies (how many libraries, archives and museums are there around the world?), significant budgets funded by membership fees, and are accredited with UNESCO.

The CCAAA is different to them in several respects. It is not a legal entity, has no fixed secretariat, no paid staff, a minimal budget and—in rel-

ative terms—a much smaller constituency. It is an association of associations, and so is a forum rather than a directive body. In the annual meetings of its board, usually at UNESCO headquarters in Paris, each association is represented by its president and secretary-general (or equivalent). The presidency rotates around the membership. CCAAA is not itself accredited to UNESCO because that accreditation belongs, separately and individually, to its member associations. Compared to its older and bigger siblings, it is therefore a much more modest body.

It is directly responsible for two recurring events. It manages UNESCO's "World Day for Audiovisual Heritage," observed on 27 October each year, which was established by UNESCO's General Conference in 2005 and first observed in 2007. It organizes a Joint Technical Symposium (JTS) every few years, most recently in Singapore in 2016. In practice, the management responsibility for both events is shouldered in rotation by one of the member associations on the CCAAA's behalf. As will be seen from its website, the CCAAA also takes policy positions on a number of issues, such as the repatriation of heritage.

Many audiovisual archives are members of more than one of the CCAAA associations, because they find that no single association serves their entire spectrum of interests. At the level of the individual staff member, there may also be multiple memberships for the same reason.[6] The overlap in constituencies has increased over time, but I do not think the possibility of merging any of the associations has so far been seriously addressed. This may become an increasing problem.

While the CCAAA is potentially a unifying force for the profession, and could be taking strong public stances on core issues, its influence does not seem to reach much beyond the governing committees or councils of its member associations. Among audiovisual archivists generally the CCAAA has a low profile. Its website does provide some current news and a gateway to the websites of member federations, but its own proceedings are not made public and are therefore opaque to the average professional. In my view, it should post the minutes of its proceedings on its website, making its activities and thinking transparent and accountable—there is no better corrective to hasty or uninformed decision making. It should also make much greater use of the site's awareness raising possibilities. For example, it could bring together the policies and codes

of its member associations in a coherent framework so they can be compared and studied. This should create much wider interest and collective awareness among the individual members of the constituent associations.

Because of historic rivalries, and because each federation guards its autonomy and its individual accreditation to UNESCO, the federations have varied over the years in their level of commitment to the forum, which can only work as well as its members collectively wish it to. At the time of writing, I believe it is now supported more seriously than at any time in the past, but it seems to me there is still some distance to go.

Codes of Ethics and the Character of Professional Associations

I have asserted, in this article and in the *Philosophy,* that one of the defining characteristics of a profession is a code of ethics.

The CCAAA's opposite numbers, such as ICA, IFLA and ICOM and other associations in the archives, library and museum fields have long standing codes of ethics and related documents which are widely referenced, and which inform the policies and ethics of their member institutions as well as individual professionals. All the "collecting" or "memory" professions share common ethical values, and audiovisual archivists can profitably refer to them. Typically these values include honesty, integrity, transparency, accountability, confidentiality, objectivity, loyalty and acceptance of the rule of law.

CCAAA has no code of its own, although three of its first tier members do. I discuss them in chronological sequence.

The FIAF Code, mentioned above, was instituted in 1998.[7] It deals with the management of collections and their accessibility, with the relationships between archives and the sharing of knowledge, and with the personal behavior of individual staff of member archives—picking up such issues as private collections and conflicts of interest. It is clearly and simply worded. A formal, written commitment to the Code is a requirement of full membership in FIAF, and this commitment must be renewed at regular intervals.

In FIAF's Statutes and Rules there are procedures for dealing with violations of the Code by a member archive, which can result in a reprimand, a sus-

pension or an expulsion of the institution from the Federation. To the best of this writer's knowledge, the last eventuality has never happened. An inherent tension in requiring such standards of conduct is that organisations do not grow by expelling their members, so in practice there is some constraint on the application of the Code to members' behavior. IASA's original Code, adopted in 2005, is a very different creation.[8] Its *Ethical Principles for Sound and Audiovisual Archiving* is detailed, but deals entirely with technical issues and their application to the management of collections. Members do not have to formally commit to it, and there is no disciplinary procedure. In 2017, IASA adopted an additional code declaring its commitment to the values of openness, integrity and accountability on the part of all its officers.

Although IASA's principles make reference to the ethics statements of other organisations, such as ICOM and the Society of American Archivists (SAA), no single statement of ethics from related organisations and institutions covers the full scope of IASA membership.

The adoption of AMIA's Code in 2009 was preceded by extensive consultation with the membership. It is succinct, and is best described as an "aspirational" code. Because AMIA is founded on individual membership, it is a code relating to personal behaviour and values, representing what members will aspire to do—but may not be able to achieve in practice—in their individual workplaces. By definition, there is no compulsion or disciplinary procedure—it is, so to speak, self policing. It assumes that anyone who joins AMIA will *want* to observe these values.

Given these contrasting approaches, the question arises as to whether the CCAAA could take a central role in the development of a common code of ethics for the whole audiovisual archiving profession. It could be a powerful and unifying document.

Graduate Courses

In the same year (1990) that UNESCO released its document *Curriculum Development for the Training of Personnel in Moving Image and Recorded Sound Archives* the first graduate program in Film Archiving was established at the University of East Anglia, as an elective in its MA degree in Film Studies. The program operated successfully for nearly two decades,

producing some 150 graduates. The elective has now been discontinued by the University.

It was progressively joined by other programs which now operate in the Americas, Europe and Australia and offer a specific postgraduate qualification in moving image or audiovisual archiving. In addition, existing programs in information studies, archival science and librarianship in universities around the world have begun to add course units dealing with audiovisual archiving. Further, there are options in on-line training at various levels: AMIA and SEAPAVAA, for example, have begun to offer modules and resources in their websites.

By way of illustration of the options now available I will mention two programs in which I have been continuously involved since their inception.

The Selznick School of Film Preservation (George Eastman Museum, Rochester NY, USA) began in 1996. It offers a one year certificate course, to which can be added a second project-based year at the University of Rochester, resulting in a MA qualification. Entry is competitive: typical class size for the certificate course is 12 to 15, including a proportion of students from outside the USA.

The course encompasses both theory and practicum. The Museum's Moving Image Department is one of the country's most venerable archives, and students are rotated on hands-on assignments through all sections of the Department. Faculty includes the Department's staff as well as visiting specialists.

Students are encouraged to join the local AMIA student chapter, and to participate in that year's AMIA conference. Its 200-plus graduates to date are now scattered in archives around the world. There is a strong alumni network.

The Graduate Certificate in Audiovisual Archiving (Charles Sturt University, New South Wales, Australia) opened in 1997 as a distance-learning program provided by internet. It offers a Graduate Certificate (actually a post-graduate award.)

The course modules can be taken full time (1 year) or part time (2 years). The maximum manageable class size is 20. Written assignments are submitted electronically. Hands-on skills, such as film winding and examination or equipment operation, cannot be taught except in a theoretical sense, so the focus is on the management theory and practice, and relevant case studies. The course content covers both audio and moving image. The student community is international—geography is not an issue.

UNESCO and the Wider Field

As will be apparent, UNESCO's support has been vital to the development of the field, including helping to give it a collective identity. It established the World Day for Audiovisual Heritage. In doing so it resisted some pressure to instead establish a World Day for Archives, noting in support of its actions that the audiovisual sector had specific needs and deserved a distinct identity.

It has supported the field through definitive publications, including technical manuals and the *Philosophy,* taking the lead on establishing an initial training curriculum, and encouraging and subsidizing numerous training exercises and other gatherings organized by CCAAA members. It hosts the meetings of the CCAAA and has formal relations with most of its members.

The *Memory of the World* program, established in 1992, is a support framework for libraries and archives in general, including audiovisual archives. It is now a global phenomenon, with international, regional and national committees and activities. Its most visible manifestations are its registers of outstanding documentary heritage, which includes films and sound recordings. Gaining inscription on a register requires some hard work and must pass the test of meeting a set of criteria; in this writer's view, the audiovisual media should be far more prominent on the registers than is currently the case.

Beginning in 1980, with the *Recommendation for the Safeguarding and Preservation of Moving Images,* UNESCO has followed up with other normative instruments and declarations designed to assist the audiovisual archiving profession and identify the place of audiovisual heritage within the spectrum of documentary heritage. These include the *Vancouver Declaration*[9] and, most recently, the *Recommendation Concerning the Preservation of, and Access to, Documentary Heritage, Including in Digital Form.*[10] Despite its omnibus title, this instrument sets out a world's-best-practice standard for government support for archives and libraries, and includes a provision which can call on governments to periodically account for their performance.

Are We There Yet? The Marks of a Profession

Medieval and early modern tradition recognised only three professions: medicine, divinity and law.

The term has enlarged greatly in meaning over time and there are now many current definitions: an internet search will lead you to them. But by and large, they are consistent with the definition which I proposed in 1995, and which is at the beginning of this article.

So to draw the threads together and to try to answer the question posed by the title of this article, let me test my definition, this time using as a template the sequence of attributes which set out the definition of a profession as published in the 2016 edition of the *Philosophy*.

- *There is a distinctive body of knowledge, and literature*

The range of literature is now substantial and is developing in all directions. The immense technological changes of the last twenty years have seen a corresponding expansion of literature dealing with the technical and aesthetic issues created by the move to digital preservation and access. But the growth goes well beyond this, including into areas of archive management, accessibility, institutional history, advocacy, cultural memory and biography. The number and quality of journals has expanded and the base of scholarship includes a widening list of dissertations on archival issues.

This growth has been assisted by the development of the internet and online research, and also by greater popular hunger for "restored" films and audio through the digital media, encouraging awareness of archival practicalities in both serious and popular literature.

- *Code of ethics*

There is not yet a universal code of ethics for audiovisual archivists and archives, but the advent of the FIAF, IASA and AMIA codes—different as they are from each other — represents some advance on the situation in 1995, when there were none. While acknowledging that different federations have different needs, in my view a universal code adopted by the CCAAA is possible and desirable, would be a crucial reference point, and would enhance recognition and identity of the profession. It would improve its stature relative to bodies like ICA, IFLA and ICOM, whose own codes, among others, merit comparative study.

- *Principles and values*

These exist, as they have always existed, because they arise from the nature of the audiovisual media and so are a defining characteristic of the profession. This is a fundamental tenet of the *Philosophy*.

- *Terminology and concepts*

Clearly the profession has its own terminology and concepts. They have grown and evolved since 1995 to encompass, among other things, the changes brought by digital technology. They include a range of technical terms as well as concepts like "preservation," "content" and "carrier" that, in turn, have found their way into arenas such as UNESCO normative instruments. It is evident that they have become increasingly standardised across the profession. The *Philosophy* lists the most commonly used ones.

- *Worldview or paradigm*

It is the contention of the *Philosophy* that audiovisual archives and archivists have a distinct wordview and paradigm: a particular way of comprehending the audiovisual media. Whereas a (traditional) archive may perceive a film or sound recording as a "record"—that is, evidence of a transaction—and a library may view the same film or recording as a historical document, the view of an audiovisual archivist is to embrace the film or recording holistically, as a work in its own right, and not merely as an aspect of some other overarching concept. That is, the film or recording may be art, history, record, performance, technological artefact (and so on) *all at once,* and the systems and mindset of an audiovisual archive are built around that fact.

- *Written codification of its philosophy*

One exploration and discussion of its philosophical fundamentals (my own) has been published and widely disseminated, for which we can thank UNESCO, but it is far from being the last word, and there is room for many others to be broadening the debate and discerning the theoretical and practical implications. These might include, for example, the long term characteristics of both analogue and digital documents, the relationship between content, carrier and context, and the ethical issues of personal conduct, accountability and disobedience. I would add to that the questions raised by global warming and the environmental impact of archival work.

- *Skills, methods, standards and codes of best practice*

Written standards and codes are now much more in

evidence than they were in 1995, thanks to UNESCO and the various federations, as well as a host of individual authors. The skills and theory are now taught in graduate level university courses as well as in a continuing array of seminars, summer schools and similar events.

- *Forums for discussion, standard setting and issue resolution*

As I have observed from my own long term membership of several federations as well as participation in, and contact with, the CCAAA, these forums have grown in size, maturity and visibility since 1995. They are not perfect—no such bodies ever are. They do accommodate a diversity of opinions, within themselves and collectively within the CCAAA, and this can be a sign of strength and a corrective against fundamentalism or narrow orthodoxy. Conversely, it can be a sign of weakness if common values and purposes are lost sight of: strident views need to be handled in a collegial manner, and old prejudices have a way of lingering.

A notable development has been the advent of specialised festivals, such as *Cinema Ritrovato* in Bologna, and the *Giornate de Cinema Muto* in Pordenone*,* which have showcased the restoration work of film archives in an educative and professional context. Such events, too, are forums for discussion and standard setting which help to give the profession a distinct identity.

- *Training and accreditation standards*

It is probably true by now that no one who really wants to gain training in the field is without some options. The existence of a range of postgraduate programs around the world, the inclusion of audiovisual archiving as an elective in postgraduate programs in related fields, and the availability of on-line training resources is far ahead of the situation in 1995.

Nevertheless, the lack of a mechanism for formally accrediting individual professionals through CCAAA or its member associations remains an unresolved issue. Bodies like ICA and IFLA have long since dealt with this need by—for example—recognising standards that are applied at the national level through affiliated associations, thereby establishing reference points which governments and other employers are able to recognise.

- *Commitment: members invest their own time in pursuing the best interests of their field*

My experience is that people who enter and persist in this field have a passion for it that is palpable. As I have at times pointed out to students, this is a field without great financial rewards, nor does it offer much in the way of personal recognition. In caring for the creative work of others, the results of an audiovisual archivist's work in building and preserving collections is likely to be taken for granted by those who use the collections.

Conclusions

It is worth being reminded that, historically speaking, the generic term "film archive" was chosen not because of any resemblance to manuscript or document archives, but because it communicated an *image* of stability and altruism. Their concern with mass culture gave film archives a relatively weak position in the hierarchy of cultural institutions, where they were not at first recognized as being in the same league as libraries, museums and traditional archives. After considering alternatives, FIAF settled on the term because it demonstrated the distance of film archives from the profit motive. It was a word which suggested solidity and safe keeping. What FIAF started, others have tended to follow.

So I conclude that film archiving—or more broadly audiovisual archiving—is undoubtedly a profession in its own right, albeit with some unfinished business for its federations to address. Whether it is widely *perceived* as its own profession is still a work in progress, and I believe the creation of accreditation standards across the profession, as well as a shared code of ethics, remains a vital and still unrealized part of that recognition.

As graduates emerge from the university courses now being offered, primary personal identification as an audiovisual archivist, rather than as a member of one of the older memory professions, is, I believe, now more likely than was the case in 1995. And it is a great reassurance that, as I have discovered, passion for the field is every bit as evident in the young people now entering it as it was for the older generation of pioneers. In that passion lies the guarantee of its future.

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Endnotes

1   International Federation of Film Archives (FIAF) established 1938; International Association of Sound Archives (IASA) established 1969; International Federation of Television Archives (FIAT) established 1976; Association of Moving Image Archivists (AMIA) established 1991.

2   University of East Anglia, Norwich, UK. From 1990 a one-year Film Archive option was offered within a Masters program on Film Studies.

3   The writer holds a Diploma of Librarianship, and in the earliest years of his employment in the field, in the film archive at the National Library of Australia, Canberra, he was classified as a librarian.

4   International Council in Archives (ICA), International Federation of Library Associations (IFLA).

5   English, French, Iberian Spanish, Latin American Spanish, Iberian Portuguese, Brazilian Portuguese, Chinese, Japanese, Farsi, German, Macedonian, Burmese.

6   As the former Deputy Director and current Curator Emeritus of the National Film and Sound Archive of Australia (NFSA), I can note that the NFSA is, or has been, a member of FIAF, SEAPAVAA, IASA, FIAT/IFTA and AMIA. As an individual, I have long standing personal memberships in AMIA, IASA and SEAPAVAA. I am also a professional member of the Australian Society of Archivists, which in turn is an affiliate of ICA.

7   http://www.fiafnet.org/pages/Community/Code-Of-Ethics.html, last accessed 26 February 2017.

8   http://www.iasa-web.org/ethical-principles, last accessed 26 February 2017.

9   http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/mow/unesco_ubc_vancouver_declaration_en.pdf, last accessed 26 February 2017.

10   http://portal.unesco.org/en/ev.php-URL_ID=49358&URL_DO=DO_TOPIC&URL_SECTION=201.html, last accessed 26 February 2017.

What Price Professionalism?

Caroline Frick

When I was asked to respond to Ray Edmondson's piece, "Is Film Archiving a Profession Yet? A Reflection – Twenty Years On," I was immediately struck by the clever title of the *Synoptique* issue in which it would be published: "*Institutionalizing* Moving Image Archival Training" (emphasis mine). In the two decades since Edmondson's original essay, moving image archival training has, indeed, become institutionalized in every sense of the word. Training has not only become formal "education," but is increasingly academic, ensconced in ivory tower institutions. Moreover, the efforts on the part of film or audiovisual archiving professionals to establish codes of ethics and to "profess commitment to competence, integrity and morality, altruism," as Edmondson notes has already occurred in the International Federation of Film Archive (FIAF), Association of Moving Image Archivists (AMIA), and the International Association of Sound and Audiovisual Archives (IASA) amongst others, connotes more institutionalization. In this case, attempting to clarify and standardize professional expectations and protocols.

To be "institutionalized" can also conjure up, appropriately, old Hollywood images of the eerie "asylum" where one sends the suffering, highly impassioned, or disaffected. Having attended countless moving image archival conferences in the last twenty years, I think it a fair analogy for this profession's mélange of individuals proudly following in what some might say, the unique footsteps of Iris Barry and Henri Langlois. (*Please note:* I write this with great affection and fully cognizant of my own self-identification as "film archivist!"). Issues of identity, professional or not, the increased distancing of the profession of moving image archivists from the media industries themselves, and the ever-present challenges of financial remuneration and constraint appear to me to be the most significant and resonant to the contemporary landscape of archival training and the field writ-large.

Edmondson's discussion of the socio-cultural aspects of professional identity offers one of the most compelling aspects of his essay. As he notes, his original article's debate as to whether or not film archiving was a profession "did not automatically mean that people working in the field personally *identified* as film archivists…many preferred to identify with the professions in which they happened to hold formal qualifications." How one self-identifies, or what aspect of one's identity to privilege over another, proves a core component to the creation, cultivation, and, indeed, definition of a profession. Underpinning the status and respect conferred upon a "professional," regardless of specific field, is the clear demarcation of the profession from jobs dependent upon manual labor.

In a chapter that I wrote for an anthology on media industry studies (Frick 2009), I noted an interesting analogy between film archivists, tasked with taking

care of "dead" or obsolete media artifacts, and early American morticians. In the nineteenth century, undertakers distanced themselves from woodworking laborers who crafted coffins by beginning to refer to themselves first as "funeral directors."

> In a country where there is no titled class… the chief distinction which popular sentiment can lay hold of as raising one set of persons above another is the character of their occupation…Success in the middle class increasingly depended upon…elevating the status of one's occupation by referring to it as a profession. Funeral directors, for instance, seized the word—professional—when they decided not to follow in 'the wake of broom makers, box and basket-makers' (36).

The growth of academic or professional degree programs in film or media archiving testifies to the personal and socio-cultural value of attaining certification via study and research versus, or in addition to, skills attained via experience or vocational training. Social networking predicated on these degree programs then grow to carry significant weight and import in the job market as well.

Of course, concomitant with the rise of academic courses in audiovisual preservation was the global shift to digital communication, information, and convergence. Up until that time, celluloid, both 35mm and 16mm, retained a vital, central role binding together moving image archives, film and broadcasting entities, motion picture laboratories, and growing ranks of preservation professionals. With the first generation of film archivists trained in programs joined to more established film and media studies departments, or in the case of George Eastman Museum's L. Jeffrey Selznick School of Film Preservation, a museum dedicated to the preservation of film as art and artifact, celluloid not only was taught to be the preservation medium but had, for many, acquired an almost fetish-like aura.

For example, when I arrived at George Eastman Museum (then House) in 2010 to serve as the Curator of Motion Pictures, I discovered that films from the collection had not been used in conjunction with other museum department content in the creation and displays of museum exhibitions, as the films would be seen on video within such an environment. Rather, the appropriate (and only)

manner for the general public to experience films from the collection would be via projection in the museum cinema on celluloid, in accordance with the film's original intent and form. I can, both then and now, appreciate this rarified "celluloid-first" approach, particularly from a theoretical, branding and/or aesthetic perspective.

My concern remains, however, that such an adherence to celluloid "purity" ultimately reduces the number of people who can or will engage with archival content and, quite frankly, can take some of the pure enjoyment and fun out of the virtually endless potential of film or media curation. Although this anecdote offers only a small example of how organizations that conceive of, or present, film primarily as an art form have dealt with celluloid, the explosion of academic and archiving interest in non-feature film material (aka, "orphans" not "ART") led to an entirely new area of celluloid-focused discussion and study that, at first, privileged film as film.

At the same, broadcasting entities were busily moving forward into digital production, post-, and preservation just as they had done with video (film preservationists, and their growing ranks of professionals, remained largely devoted to film). While in the1990s, representatives from major broadcasting entities as well as production houses would attend the Association of Moving Image Archivists conference, more recent events outside of Los Angeles or New York garner very few of the now-dominant media format and industry.

Although a much larger topic that is far too complicated for thorough discussion here, I would posit that the increased separation between audiovisual archiving professionals and the commercial entities producing moving image product has had a deleterious effect—and is one that is inextricably connected to the "death of cinema," not as an art form or as broadcasting fodder, but as an industry standard. Digital preservationists, much like twentieth century audiovisual preservationists have started to create their own organizations and interest groups, widening rather worrisome gaps between emerging professionals. Will this even matter, however, in our era of convergence, where "archives" are becoming synonymous with digital asset management, and information technology officers work with audiovisual collections more than "trained professionals?"

Another vital challenge inherent to the increased

professionalization of the media preservation field (and concomitant growth and value of educational programs) remains financial. Not only has the cost for preserving audiovisual content continued to rise, but so has the cost of becoming a preservation professional. One of the most prolific, and understandable, complaints by graduates from the increasingly expensive academic or professional degree granting programs in film and/or moving image archiving is the lack of job security upon graduation as well as the low pay associated with employment in the field. Nearly every year, the AMIA-list serv experiences a flurry of activity directly related to this topic. For example, in 2010, a long and quite heated exchange took place about "The Cost of Archiving" (AMIA 2010) that grew to include provocative but very important questions: "It is fair to look at the cost of AV Archivists not only from the Archivist perspective (too much training for too little salary) but from the management perspective…it is important to consider what value an AV Archivist really does bring to the table in a digital archive and at what cost…are AV Archivists necessary and if so at what cost?" Edmondson himself notes towards the conclusion of his essay that he reminds students that media archiving is "a field without financial rewards" but that new generations of film archivists share the "passion" of their more senior colleagues.

I agree with Edmondson's assessment of the financial limitations of the field as well as of the awe-inspiring level of commitment and excitement possessed by individuals in the film preservation communities. At the same time, I would argue that the "selfless" or self-sacrificing nature of media archiving professionals fits seamlessly with the notion of middle-class professionalization in its most general sense: One pursues work due to a higher calling that can be framed in almost quasi-religious discourse. (Or, in other words, film archivists are doing this work for the money!) I do not cite such passion, fervor, or zeal in any negative sense; indeed, I share this level of excitement when describing new archival discoveries carefully (and painfully) pulled from a dusty and moldy 8mm box. Rather, I refer to this passion as an indicator of the class-imbued nature of professionalization generally and media preservationists' mid-to late twentieth century pursuit of this qualification.

Jobs within the moving image archiving community increasingly mirror paper or art conservation in requiring an advanced degree from institutions of higher learning. Thus, the move towards professionalization for media archivists has succeeded in effectively distancing trained practitioners from mere amateurs, fans or hobbyists. Film curators, for example, now must possess PhDs to illustrate academic pedigree, not just simply know film facts and trivia from having collected films, like the early generation of Langlois, James Card, and others. But will the costs associated with such programs serve to inhibit greater diversity of accredited professionals? Will only the upper middle and elite echelons of our world be able to afford to be media archivists? Or will digital convergence carry with it the ability to challenge previous nineteenth and twentieth century conceptions of what constitutes a "professional?" Perhaps a new mode of professionalism can emerge that remains publicly accountable, but with less stringent or moralistic conceptions of right and wrong, good or bad, or, at the very least, less monopolistic. In other words, professionalism can serve as a "method of controlling work" and, relatedly, who can work and how (Friedson 1994, 3).

I tend to agree with Edmondson that audiovisual archiving has evolved into a profession as of 2017, but I would encourage those involved and invested in said profession to look closely and carefully at what has been lost with this transition. Who is able to define themselves as a film archivist, and why? Film, media, sound, or digital archiving should not be institutionalized, but rather must continue to evolve and migrate as our content itself does.

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Interdisciplinarity, Specialization, Conceptualization

Archival Education Responding to Changing Professional Demands

Eef Masson & Giovanna Fossati

In his contribution to this *Synoptique* issue, Ray Edmondson traces two decades' worth of attempts—largely successful—to establish film archiving, or moving image archiving more broadly, as a substantive profession. A 'profession' is understood here as one that takes shape in an institutional context, that is reliant on a set of shared values, goals, and standards, and that is recognized as such both within the field and outside. In systematically discussing each of those requirements, the author points out that the past twenty years have been marked also by profound change for the institutions and staff concerned. We may think here of technological developments, but also transformations in terms of archives' overall operational priorities. On the one hand, of course, the period since 1995 has seen a gradual reversal in the status of digital technologies, as their use shifted from experimental to all-but-pervasive. On the other, audiovisual archives also transformed from rather closed organizations, often focused on a specific medium (film or video; but also, as Edmondson highlights, image or sound) and its associated formats, barely interacting amongst each other (let alone working together), to generally more open, cooperative ones, with a broader outlook in terms of media and a stronger sense of shared concerns (Valck 2015, 6). The latter developments are at least partly inspired by societal ones, and more specifically, by shifts in the demands placed on all kinds of herita-ge institutions. It is currently expected that such institutions make collections accessible to a range of audiences; in turn, this has warranted the use of a variety of state-of-the-art (on- and offline) technologies.

One outcome of the transformations mentioned is that the field is getting increasingly interdisciplinary. The consequences of this manifest on the work floor, but also transpire in the curricula of designated training and study programmes. This is hardly surprising, as the latter tend to operate in partnerships with relevant institutions—whether for purposes of teaching or training, or to feed the need for facilities and supervision for professional internships. Twenty years back, moving image archiving required a combination of specialist technical expertise (often provided by former media industry professionals) and media historical knowledge (aesthetic, but also techno-material, and usually brought by staff with a background in a broad range of arts and humanities subjects). These days, the work is considered to also involve, at the very least, expertise in information science, and specific programming skills. In addition to this, a convergence of concerns across the broad heritage sector (Koerber 2013, 43) has enabled, and necessitated, the enrichment of AV archival practice with experience from related fields. For instance, staff with backgrounds in fine arts conservation, or, for presentation purposes, interaction design, may already

be familiar with solutions to problems novel to our field. A similar trend also manifests in educational contexts, where the range of potentially relevant disciplines has steadily increased. This is evident in at least two ways. On the one hand, designated programmes have introduced new course modules to meet the demand for novel types of expertise.[1] On the other, they have designed assignments that require students to consult with professionals with a wide range of (highly specialist) expertise.[2]

Working in an interdisciplinary fashion, of course, requires that several areas of expertise are not just combined, but combined productively. For today's archivists and archivists-to-be, this entails that they are subject to three interrelated demands.

First, they are expected to be aware of the pertinence to their work of a range of disciplines—even if they do not practice all those disciplines themselves—and of whom, in or outside their organizations, they can turn to for specialist advice. This need is especially pressing at a time when the processes of collecting, safeguarding and making accessible moving images and sound are increasingly entwined. And arguably, it is evident in particular when preservation or presentation tasks are being outsourced. For instance, if an institution decides to hire a specialist company to take care of its online presentation, the in-house curator or programmer still needs to be aware of the affordances of relevant platforms, and of how different online channels facilitate access to the collections for different groups. Likewise, preservationists have to know the possibilities of a range of analogue and digital tools, even if they cannot operate them themselves. At the same time, they need to be aware that decisions concerning the materials' presentation may affect, or restrict, the options to choose from—even if those are (formally) taken much further down the line. For example, the parameters of digitization, even if done specifically for the purpose of restoration, will have consequences also for presentation later on.[3]

Second, today's archivists are supposed to develop, and keep developing, their own particular expertise. Considering the complexity of contemporary AV archival practice, no one person can be expected to know everything; instead, all need to cultivate a specific set of knowledge and skills, that others can in turn rely on. This is true not only for new, digital competencies, but also for the more traditional expertise that commercial service providers are quickly losing (often knowledge of analogue technologies and processes, such as photochemical duplication or the maintenance and operation of legacy projection equipment).

Third, (would-be) archivists require strong communicative skills, and a good measure of flexibility in their associations with others—especially in encounters with colleagues who use different jargons. In today's archival settings, both are essential prerequisites for cooperation towards common goals. To demonstrate this, we only need to mention how heavily all archival staff—collection specialists, preservationists, curators—rely on IT support, both in using and in devising the tools they require for their day-to-day tasks. Such collaborations presuppose that they formulate their needs precisely, but also accessibly, so that colleagues less aware of the needs of collections, or of the people who use them, can act upon them in appropriate ways. In addition, audio-visual archivists (specifically those dealing with media produced and re-/used outside of mainstream and commercial structures) increasingly need to interact with a variety of stakeholders, and in some cases, even existing "networks of care" (Dekker 2015) that have clustered around specific works or collections. As media archiving is increasingly becoming a 'distributed' practice—and no longer just a matter of official, institutional archives—the working sphere of so-called 'professionals' is expanding considerably. Inevitably, this requires a sensitivity towards a highly diverse set of interests and concerns.

For educators, those three demands entail a responsibility to enable students, on the one hand, to understand (shared) archival objectives, and on the other, to develop their own, individual specialisms. Today's AV archival curricula necessarily include broad introductions to the history and institutionalization of the field, to its constituent practices, key concerns and common procedures, and crucially, to the discourses, professional and critical, that inform them. Such a broad basis is required, as graduates will be expected to collaborate with staff with a range of responsibilities and expertise, both in the same organization and across institutional boundaries. This necessitates a broad outlook, and the ability to relate one's own tasks to those of others, within a complex, interdisciplinary whole. But at the same time, programmes also need to give participants the space to pursue their own interests. Students may bring such interests as

they enter a course of study (inspired, for instance, by prior experience in the field) or pick them up along the way. Most relevant programmes address issues in, and procedures for, the interconnected practices of collecting, preserving and presenting or reusing moving images and/or sound; in most cases, however, participants end up choosing to zoom in on either of these areas. It is important that they do, as the same will be expected of them as they enter the profession, or return to it. In most cases, they acquire specialization through practical skills training (for instance, in the context of a work placement or internship) and critical reflection (for example, in the context of an individual or group research project, or an academic thesis).[4]

The aforementioned tendency towards specialization to some extent also transpires in the outlooks of the different programmes. On the one hand, each course of study is indebted to the particular circumstances of its emergence, and to the type of institution (museum, university, college of vocational studies or university of applied sciences) or department (Library Science, Media Studies, Conservation and Restoration) in which it operates. But on the other, the complexity of AV archival organizations today, and specifically, their need for a variety of subject specialists, also requires that programmes cater to audiences with subtly different interests. For instance, archival programmes might primarily attract candidates with more of a penchant for the media historical aspects of the material, crucial to its selection and presentation, or for the technical requirements of establishing, enriching and managing digital collections, key to both its preservation and its reuse. However, as they do so, they are all bound by prospective professionals' need for a profound awareness of how those different specialities interconnect, and how choices in one area of expertise, or stage in the archival records' life cycle, affect those in others.

At the same time, educational programmes increasingly take on the task of conceptualizing AV archival issues and practices. Over the past twenty-five years, they have produced a growing number of graduates who subsequently went on to pursue doctoral degrees, often in topics relevant to the field.[5] Together, these authors have contributed a corpus of work that is much more tailored to the needs of the AV archival field than the body of literature that was available as specialist programmes first got started. Such developments also are revealing of a transfor-mation in the nature and role of (specifically academic) archival education. If designated courses of study used to be overwhelmingly practice-driven (in that they focused on the transmission of knowledge and skills produced within, or by, the field itself), they increasingly also seek to equip students to contribute novel insights to critical debates, and even, to take careful first steps towards a further conceptualization of AV archival practice. In doing so, and thanks in part to the close cooperation between profession and training (evident also from participants' involvement in relevant associations, for instance as part of the various student chapters of the Association of Moving Image Archivists), they too have contributed to what Edmondson sees as the 'professionalization' of a field. As this is happening, complaints about the lack of relevant 'theories' (for instance, of restoration, as discussed in Meyer 1996) are gradually getting superseded.[6]

By way of recapitulation, we would like to propose that in the two decades that passed since Edmondson first posed the question "Is Film Archiving a Profession?"—also a period in which specialist educational programmes proliferated worldwide—both AV archival work and its teaching have been subject to three interrelated demands. They have been marked by a need for interdisciplinary cooperation, but at the same time (and perhaps paradoxically), also thorough specialization. Simultaneously, they required concepts and models—not only to better understand what was already happening in the field, but also in the interest of developing current practice (for instance, in response to the emergence of new types of collections, new forms of use, or new societal concerns). As we discussed, these interrelated trends derive from changes affecting the field itself, but also from the interplay and exchange with those teaching and training future employees, and producing relevant research.

The aforementioned demand for 'specialization' may suggest that over time, archiving will break down into a number of distinct professions, each requiring its own courses of study. Such a logic, however, ignores the equally profound need for interdisciplinary cooperation. After all, in the context of an audio-visual archive, one can only function properly as a specialist, if one is profoundly aware of how one's expertise ties in in turn with that of others, within a larger interdisciplinary connection. In addition, the reality of a field in constant flux also requires that one can occasionally retreat from one's

daily practice, considering it from a critical distance and reflecting on how, and whether, it still serves the larger purpose it is supposed to fulfill—both within an institution, and in society at large.

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Endnotes

1   For example, courses in digital literacy or even basic software coding, as recently offered by New York University in the context of its MA in Moving Image Archiving and Preservation.

2   For instance, the University of Amsterdam's MA in Preservation and Presentation of the Moving Image has students complete their first semester work with a group project geared towards the formulation of preservation and presentation advice on complex, often recent (and yet already obsolete) films or media artworks.

3   A common example is that of silent film restoration, where practitioners have to take into the account that digital projectors cannot show a frame rate lower than 24 fps. Consequently, they need to add additional frames to the digital projection copies (the so-called Digital Cinema Packages or DCPs) in order to simulate the lower frame rates typical of silent films.

4   For instance, on the abovementioned MA in Preservation and Presentation of the Moving Image— the programme we are associated with, and therefore know best—students can spend almost an entire year of their one-and-a-half-year programme focusing on one specific area of practice (e.g. preservation or access), or, if they so choose, even a specific medium or type of collection. This requires that they make relevant decisions in choosing their electives, thesis topics and internships.

5   Examples are legion, but we limit ourselves here to some of the people with whom we have worked more closely. For instance, Carolyn Frick, an alumna of the (now defunct) MA in Film Studies with Film Archiving option at the University of East Anglia (whose dissertation on the politics of preservation was later released as a book; see Frick 2011); Claudy Op den Kamp, a graduate of the same programme (who obtained her PhD with a soon-to-be published thesis on the role of copyright in access to archival film collections; see

Kamp forthcoming); Sonia Campanini, a graduate of the MA in Media Studies at the University of Bologna, with a strong focus on film heritage (who graduated with a PhD thesis on the preservation of film sound, soon out as a book also; see Campanini forthcoming); or, the guest editors of this special issue, Christian Gosvig Olesen and Philipp Dominik Keidl, both graduates of Amsterdam's Preservation and Presentation of the Moving Image programme (the first of whom recently defended his dissertation on the relations between the digitization of film archives and new—digital—dispositifs for media historical research, while the second is working on a project on fan practices in, among others, the preservation and presentation of moving image heritage).

6   For examples of contributions by former students of dedicated programmes to film restoration theory—which is what Meyer 1996 was primarily concerned with—see for instance Busche 2006 (by a graduate of the University of East Anglia programme), Wallmüller 2007 (of the programme at the Hochschule für Technik und Wirtschaft, Berlin), or Jamieson 2015 (of the University of Amsterdam programme). In addition, of course, publications by staff are also relevant here; see for instance Fossati 2009. Another key contribution to debates on film preservation of the past ten years is Gracy 2007 (the author of which pursued a PhD on the topic after graduating with an MLIS degree at the University of California, Los Angeles, which has its own expertise in media archiving).

What Do We Profess To?

Benedict Salazar Olgado

The answer to Edmondson's question, raised more than two decades ago, is an unequivocal 'yes,' especially after considering his definitions and qualification measures. The politics of professional identity is built not only on a shared and defined knowledge base. As Edmondson points out in his reflection, it is also a question of self-identification, by those working in the field, and external recognition, from their stakeholders. This idea of inclusivity and exclusivity initially helped address an early anxiety within the profession, which stemmed from its relationship to a prior form of the profession. This may end up being an unproductive exercise in the face of developments within and beyond the field. Such a process blurs the disciplines' theoretical underpinnings and the immediacy of socio-cultural contexts in which they operate. Where does the profession go after laying claim to its identity?

I belong to a generation of audiovisual archivists emerging out of formal university programs. Trained to become professionals, we ticked every box Edmondson laid out on his checklist. We grasped distinct terminologies and perfected relevant practices while adhering to the profession's philosophies and principles. Early on, we were exposed to and consequently engaged with the AV archiving community through our projects, internships, and participation in fora and associations. hile most of these standards are moving targets and some of these values have yet to be agreed on and codified,

there is a semblance of a shared educational experience and common professional training which strengthens one's self-identification as an audiovisual archivist, as Edmondson argues. This serves as a formal transference of sorts: encouraging inclusivity, as students feel a sense of belonging to a community, and strengthening their professional identity, while also tracing their lineage to the likes of Henry Langlois and Iris Barry. Though the community may be small in number, the passion is as evident as ever, which reassures Edmondson. Throughout his writings, Edmondson has insisted that this professional identity is not to be seen as a subset of older and politically larger disciplines, like that of general archival science or librarianship, while also admitting to the considerable internal plurality within the AV archiving profession. Edmondson premises this stance on the unique nature of audiovisual media, which he argues is where the philosophy of the profession arises from. Though there are technical distinctions, based on materiality, or epistemological and ontological differences, Edmondson's call is more political as it advocates for the AV archiving profession itself and its identity vis-à-vis other ones. As a relatively younger profession with, initial reservations towards its sister disciplines, there is political value in such a stance as it tries to gain ground and stand on its own through a position of exclusivity. Such exclusivity brings about external recognition;the profession was formally acknowledged by academia,

allowing for its own degree, and by governments, with UNESCO initiating various instruments and programs. However, these earlier demarcations may prove difficult to defend in the face of technological homogeneity with academia's move towards transdisciplinarity and with political realities spurring marginalization.

While the volume of analog AV materials currently existing in various repositories, as well as those yet to be acquired, will continue to create a backlog for audiovisual archivists to work on with their analog skill set. The nature of obsolescence and the rising amount of born digital AV materials is already reshaping the profession. One need only look at the centrality digital preservation has occupied within praxis, discourse, and curricula of the field. Of course, there are technical differences between a digital photo, a digital document, and digital audiovisual material, but digital preservation brings these objects and their related collecting disciplines closer together. It is not surprising that a formally educated audiovisual archivist would fill a digital archivist's position. The obsolescence of analog AV material, the economy of digital audiovisual content, and the inherent complexity of digital audiovisual objects—compared to its other digital iterations—pushes the AV archiving profession to take the lead in digital preservation. As this demand strengthens, the divide between material-based identities of analog and digital AV archivists widens while the latter becomes closer to other memory professionals that are looking at transdisciplinary approaches.

Audiovisual archiving's nascent position in academia forecasts an uncertain future. With both the University of East Anglia and the University of California Los Angeles programs closing, the sustainability of these formal graduate programs is also under question. Edmondson points out that this field is both without great financial gains and one that requires an expensive formal education. This has an impact on the diversity within the profession. The marginalization is exacerbated seeing as existing specialized programs are generally found in developed countries. Edmondson's current call for accreditation standards across the profession will only perpetuate the exclusivity of the profession. This divide, and its consequent impact on larger issues, should take precedence over the focus on disciplinary differences.

The self-identification and political exclusivity, re-spective to the distinct nature of the medium under question, has enabled audiovisual archiving to assert its identity, bolstering the establishment of a profession. However, with this being more than twenty years after Edmondson raised the question, the question and its framing becomes irrelevant.

The identity politics of the profession, as defined by the nature of the object, is a sensibility once shared by archival science, which defined itself for a long time by the materiality of the physical record. As Verne Harris suggests (2002, 83), it was a problematic discourse that defined the archival endeavor primarily in terms of storage and custodianship, seeing as it conceptualized archives merely based on physicality, narrowing what the record is and what it can be used for. Contemporary critical archival theorists, such as Terry Cook, offer a corrective to Harris' views, presenting a new paradigm for archives that "replaces the profession's traditional intellectual focus on the physical record—that thing which is under our actual physical custody in archives - with a renewed focus on the context, purpose, intent, interrelationships, functionality, and accountability of the record, its creator, and its creation processes, wherever these occur" (Cook 1997, 48). The larger archiving profession now aims to see itself beyond what it collects.

Anne Gilliland (2016) warns us that more often than not that the material conditions of our profession limit us from thinking and reflecting about the archives. She asks, "how can we transform archives so that they can be more responsive to and inclusive of the diversity, dynamics and inequities of the world in which we are living? An archive which is more person-centered, more humanitarian, and more enfranchising." The rise of community, participatory, and activist archiving is a response to this sentiment. Such movements focus neither on materiality nor on professional reflexivity. While Edmondson called on the profession to articulate what it is and what it is not, today such movements focus on articulating what it is for.

In his keynote address during the 2015 FIAF Congress, Rick Prelinger (2015) calls on the audiovisual archiving profession to do just that:

> We cannot continue to rely on oversimplified, inoffensive, celebratory statements geared for public consumption [...] For the most part, moving image archives exist in a kind of teleological vacuum. It's good that we exist, but I've

yet to see much thoughtful examination as to why [...] To actively consider the reasons for our existence is also to ask: Could we, as archivists, point ourselves toward an agenda that we wish to make real?

Edmondson's call for a shared code of ethics, which is generally self-reflexive, is only one response to this call. The issues surrounding diversity within our profession and its collections, as well as the difficult conversations some of our professional associations are having on this topic are integral. However, the profession must also focus on looking outwards, to not be defined solely by the medium. As John Fleckner reflects in his presidential address to the Society of American Archivists in 1990, the notion of a profession carries with it,

> the idea that as professionals we have something to 'profess'…that in this act of 'professing' we tie our own self-interest to the well-being of the larger society so that profession is not merely that of a self-interested clique, but instead, a legitimate claim on behalf of the greater public interest (1991, 12).

While film archivists have long served film scholarship and heritage as part of both the larger audiovisual archiving profession and the general archiving movement, it will need to expand its purview. At the end of his reflections, Edmondson acknowledges the unmistakable passion young professionals have entering the field, and that such a passion will guarantee the profession's future. I argue that this passion will only be of value once we are able to answer the question—what do we profess to?

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The Jeffrey L. Selznick School of Preservation
Changing the Field

Caroline Yeager

Of the many subsidiary industries that grew out of the birth of motion pictures, the occupation whose invention is most closely associated with a simple appreciation for film itself is that of the film archivist.[1] Formal film archiving is generally understood to have originated in the 1930s with organized attempts to collect films for the purpose of long term preservation. This was at a time when film itself was not ranked as one of the fine arts. Yet a network of dedicated collectors, cinephiles, and archivists recognized and appreciated the value of this new art form, and established the International Federation of Film Archives (FIAF)[2] with the intention of standardizing the way films were collected, conserved, preserved, documented, and viewed. The L. Jeffrey Selznick School of Film Preservation is one reflection of that visionary effort.

The movement that began almost 80 years ago with a small group of individuals dedicated to preserving film has grown exponentially to embrace all audiovisual media. It has evolved into a structured and connected field, linked worldwide through such organizations as the CCAAA,[3] an umbrella organization covering many formalized international groups of film, video, television, and sound archivists.[4] While the first vanguard of film preservationists were self-taught, relying upon existing archival protocols for the other fine arts and the time tested path of trial and error, the field slowly shifted towards a more official approach as early preservationists retired in the 1970s. Through the years, FIAF archives spearheaded initiatives studying the causes and solutions to film decomposition, and in 1973, FIAF directed the first two-week Summer School for film training, held in East Berlin under the curatorship of Wolfgang Klaue. The 1970s saw a surge in film studies programs offered at the university level, but that trend did not precipitate a similar growth in courses on film preservation. It wasn't until a pioneering graduate program in Film Archiving at the University of East Anglia was launched in 1990,[5] that moving image archiving seemed to finally find its place in academia. Yet respect for audiovisual archiving as a profession, one that is vitally necessary to preserve and promote cultural identity, remains a quiet struggle, with little public awareness of the field and its purpose.

Ray Edmondson's seminal essay "Is Film Archiving a Profession?" (1995) and its follow-up response "Is Film Arching a Profession Yet? A Reflection – Twenty Years On" in this issue, discuss a profound question: is audiovisual archiving an actual profession meeting the standards held by comparable fields such as library science or fine art curatorship? This brief history of The L. Jeffrey Selznick School of Film Preservation seeks to address that question from the perspective of an institution specifically created for the purpose of training and

inspiring future professional audiovisual archivists. In 1995, the same year that Edmondson posed his initial question, two men took a crucial step to alter the course of archival film preservation training. L. Jeffrey Selznick, then President of the Louis B. Mayer Foundation, was deeply concerned that the film legacy of his family—grandfathers and film producers Louis B. Mayer and Louis J. Selznick, and his father, famed movie producer David O. Selznick—should be preserved for posterity. Selznick was acutely conscious that their surviving silent films required skilled personnel to oversee their preservation. He chose the George Eastman Museum as the place where he could fulfill his vision of a specialized venue for the education and training in the art and science of preserving cinema as an art form and, more broadly, as a cultural phenomenon. Selznick hoped to emphasize the importance of a dialogue between archives, museums, and academia, in an environment where scholarship and technology were at the service of film heritage.

The George Eastman Museum (then called George Eastman House) was known globally for its expansive film collection (established in 1949 with the personal 35mm and 16mm prints of the museum's first curator of film, James Card) and for its steadfast commitment to the collection, preservation, study, and exhibition of photographic and cinematic objects. The Mayer Foundation, under Selznick's guidance, was already supporting the museum's preservation program, having funded the creation of the Louis B. Mayer Conservation Center for nitrate film, in 1995. In conversations with Paolo Cherchi Usai, Senior Curator of the Moving Image Department at the George Eastman Museum, it became clear that he and Selznick shared the same vision for formal film preservation training. Cherchi Usai, the School's founding and current director, believed that the museum's archive and small but experienced staff, could provide the ideal training ground for the next generation of film preservationists. Knowing that the pioneers of the movement were self-trained, he sought to build upon that heritage using the best practices refined and recommended by his peers in the field. His optimism and initiative to take up the museum's mandate as an educational institution convinced the George Eastman Museum's Board of Trustees to allow him to move forward with plans to create a school that would teach

moving image preservation practices within the archive.[6]

A grant from the Mayer Foundation launched the program, offering a Certificate in Film and Video Preservation, in September 1996. From the beginning, Edmondson's criteria for formal professional standing—university level training and preparation; long term commitment; distinctive skills and expertise; worldview; standards and ethics—were integrated into the fabric of the Selznick School, and were sought in the experiences of the selected students. Cherchi Usai tapped prominent members of the film preservation community to act as an Advisory Board,[7] steering the initial direction of the course curriculum towards these goals. Core teachers for practicum and lectures were members of the Moving Image Department staff, most significantly Assistant Curator Edward E. Stratmann, and Cherchi Usai himself. Guest lectures by industry professionals and archivists whose expertise in curatorial directives and technical film knowledge was widely respected in the field, were introduced and remain a facet of the school structure today. The first-year guest roster included Jean-Louis Bigourdan, Doug Nishimura and James Reilly of the Image Permanence Institute (IPI) at Rochester Institute of Technology, whose essential team-teaching of the chemical characteristics and decomposition of film bases is now in its twenty-second year. Harold Brown (British Film Institute), Grover Crisp (Sony), Susan Dalton (American Film Institute), Ray Edmondson (National Film & Sound Archive, Australia), Edith Kramer (Pacific Film Archive), David Pierce (Copyright Specialist), Juan Prijs (Haghefilm Laboratory), Tulsi Ram (Eastman Kodak Company), and Karan Sheldon (Northeast Historic Film) were just a few of the experts who shared their collective knowledge of film preservation and archival experience with the students. Selznick indicated from the outset that graduates of the Selznick School should acquire the knowledge necessary to successfully apply for jobs in collecting institutions, whether commercial or non-profit, in both curatorial and technical positions. To this end, the first class of six students who arrived in the fall of 1996 were immediately plunged into the archive's daily routine. Film handling, inspection and identification; film and film technology history; programming; cataloguing and documentation; vault management;

copyright; curatorial issues (including acquisition, accessioning and de-accessioning, and determination of preservation priorities); laboratory practices and preservation techniques; grant writing, and film archive management were all presented, discussed, and as much as possible, practiced. After the sudden death of L. Jeffrey Selznick in May 1997,[8] the school which he helped to found was named to honor him and his abiding passion for the preservation of our worldwide film heritage.

In the School's second year, new administrator Jeffrey L. Stoiber oversaw the establishment of a training schedule combining classroom lectures on curatorial directives and preservation, with rigorous weekly student rotations among Moving Image Department staff. Students worked side by side with individual staff members to gain practical experience in the various duties, responsibilities and techniques attached to each staff member's position. The greatest asset the students had at their disposal was the George Eastman Museum's film holdings themselves. Comprised of multiple film, electronic, and digital formats, the collection offered the students the best opportunity to understand and engage with the challenges of archiving moving images. Likewise, the department's Stills, Posters and Paper Collection became a Petri dish for experience in archiving paper materials. Practicum and lectures were supplemented by visits to the Eastman Kodak film plant and digital transfer laboratory; the Image Permanence Institute; the Cinema Arts Laboratory and the Museum of Modern Art's Celeste Bartos Conservation Center, both in Pennsylvania, and the Library of Congress' nitrate vaults and film laboratory.[9]

Student fellowships began in the first year with funding from the Mary Pickford Foundation. A similar, but more extensive fellowship was developed in year two with the Haghefilm conservation laboratory in Amsterdam. Through the cooperation of the Silent Film Festival in Pordenone, Italy, the third year saw the creation of the Pordenone Fellowship. Subsequently, IPI and many other professional institutions have supported the Selznick School program by offering post-graduate fellowships for on-the-job experience. Selznick students regularly participated in the Syracuse Cinefest during the last ten years of its operations, and continue to visit the Orphans Conference, Capitol Fest, and the Association of Moving Image Archivists annual conference.

The shift in the focus of moving image archiving from film based material to digital media has been profound and swift. Archives, including the George Eastman Museum, are increasingly challenged to identify, conserve and make available digital assets, in an ever expanding response to public, corporate, and institutional demand. While a comprehensive understanding of film material in all of its aspects still forms the foundation of students' studies, the Selznick School has continued to prepare students for the evolving needs of the profession with courses that provide training in the eclectic forum of digital formats and digital preservation software. The first workshops and individual mentoring on digital training projects began in 2003.[10] In 2014, the Eastman Kodak Company gifted its entire digital suite of high resolution transfer, restoration, and duplication technologies to the museum. The George Eastman Museum's Film Preservation Services is today both a training ground for Selznick students and a digital laboratory that works in the competitive commercial market, offering students real-world experience in the digital medium. Through dedicated workshops and personal projects, Selznick students have collaborated on several major film restoration projects for the archive, including *Drifting* (Tod Browning, 1923), *The March of the Movies* [*Thirty Years of Motion Pictures*] (Terry Ramsaye, 1927) and William Kentridge's début film, *Discourse on a Chair* (1975).[11]

In 2005, the Certificate Program was enhanced by the Selznick Graduate Program in Film and Media Preservation, a two-year curriculum held in conjunction with the University of Rochester, offering a Masters of Arts in English. Since 1996, 238 students from 28 countries have graduated from the Selznick School; 30 of those have been MA graduates. The value of formal training in film preservation is no longer merely a hypothesis. The Selznick School—the only full-time course offered within a film archive or museum—is now often consulted by archives and company headhunters seeking recommendations when posting new positions. Through the years, archival exchanges have also been undertaken with our colleagues at the National Film and Sound Archive (Australia), Mo I Rana, The National Library of Norway, the Danish Film Institute, Österreichisches Filmmuseum, Vienna, and the Rockefeller Archive Center, who have sent members of staff

to attend relevant sections of the School for additional training. Collaboration with all of these institutions has been strengthened by the entrance of Selznick graduates into the field, which has promoted mutual cooperation on preservation and restoration projects, exchange of information and training, and a general willingness to assist associates and colleagues.

Increasingly, jobs within the archival field rely heavily upon combining film handling experience, digital techniques, and library science. The School has seen a rise in the number of applicants with degrees in either library science, or cinema history studies, but many have limited knowledge of physical film. The School bridges that gap with its emphasis on combining practice and theory and by integrating both film and digital formats.

The Selznick School's graduates have found employment in museums, archives, film laboratories, libraries, and commercial studios and companies worldwide. Eight graduates are currently on staff at the Eastman Museum. In addition, Céline Ruivo (Selznick 2007) is Director of Film Collections at the Cinémathèque française, Paris, and the Head of the Technical Commission at FIAF; Daniela Currò (another Selznick 2007 graduate) was recently appointed Curator at the Cineteca Nazionale in Rome, Italy. Selznick graduates have worked in audiovisual institutions worldwide, including the Library of Congress, the British Film Institute, Gosfilmofond of Russia, the Academy Film Archive, Berkeley Art Museum/Pacific Film Archive, the Cinemateca Brasileira, China Film Archive in Beijing, Sony Pictures, and Colorlab.[12] They actively advocate for the preservation of our audiovisual heritage as members of AMIA, SEAPAVAA, and other archival member organizations. The first of its kind in the United States, the Selznick School continues to evolve as its graduates step into leading roles in this singular profession. The School remains committed to the original goal envisioned by L. Jeffrey Selznick and Paolo Cherchi Usai in 1996: to provide the best training possible in the techniques and practices of film preservation, so that the fragile heritage of moving images, born over a century ago, will survive for future generations.

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Endnotes

1   The term "film archivist" reflects the original material archived. Other terms are used to reflect the range of media archivists are now responsible for.
2   International Federation of Film Archives, founded in 1938 by Henri Langlois, Ernst Lindgren, Iris Barry, and Frank Hensel.
3   Coordinating Council of Audiovisual Archive Associations, founded in 1981.
4   CCAAA current members: Association of Recorded Sound Collections (ARSC); Association of Moving Image Archivists (AMIA); International Federation of Film Archives (FIAF); International Federation of Television Archives (FIAT – IFTA); Federation of Commercial Audiovisual Libraries (FOCAL International); International Association of Sound and Audiovisual Archives (IASA); International Council on Archives (ICA); Southeast Asia-Pacific Audiovisual Archive Association (SEAPAVAA).
5   Discontinued by the University in 2012.
6   Internal Selznick School documents at the George Eastman Museum, 1996-2017.
7   The original members of the Selznick School Advisory Board were Robert Daudelin, Ray Edmondson, Edith Kramer, Gregory Lukow, and Eric Schwartz.
8   Obituary by Lawrence Van Gelder, The New York Times, Arts, May 14, 1997.
9   In 1998 the Library of Congress' nitrate films and laboratory were housed on the Wright-Patterson Air Force Base in Columbus, Ohio.
10   Haghefilm Laboratory in Amsterdam donated a Diamant digital suite to the school.
11   Undertaken as a personal project by Brian Fitzgerald in 2016.
12   Colorlab is a full service film and digital laboratory in Rockville, Maryland.
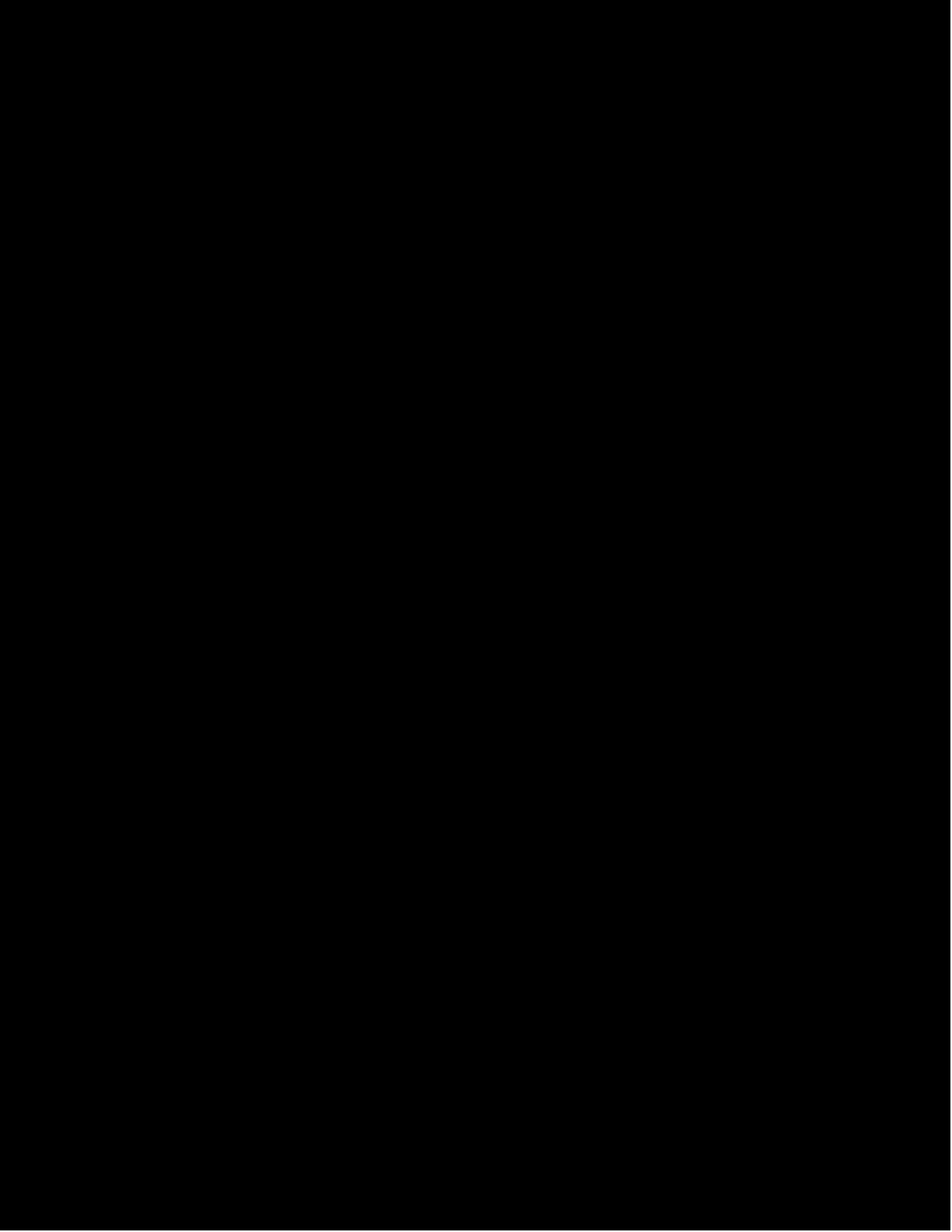
PEER REVIEW SECTION

Multiplying Perspective

Reflections on the Role of a Curatorial Perspective within Academic Film Studies

Alejandro Bachman

French Cinephiles have repeatedly conceptualized their passion for cinema as a biography that could be read in relation to the films that one has seen. In his book on the relationship of film and education—*The Cinema Hypothesis,* Alain Bergala distinguishes between the films that one has seen early on in one's life and those that are encountered later. In addition, he also distinguishes between "individual" encounters with specific films versus those interactions that occur in the context of instituionalized spaces of learning: "We all know that with the books, films, musical pieces that have mattered in our lives, we have encountered them individually, on an intimate scale, each in his own way, even if the encounter took place in what appeared to be a collective context or an institutional setting" (Bergala 2016, 39) Bergala thus articulates something that will be central to the following paper, namely that our experience of films can be personal and intimate and at the same time is often embedded into an institutional context that provides an encounter with the medium that is never free from certain interests, preconceived conceptions, and educational goals.

Taking this remark as a starting point, this essay aims to examine the role that institutions can play in restoring the astonishment and mystery of encountering cinema. The specific institution that will structure this analysis is the Austrian Film Museum, and its efforts to include a curatorial thread that explores the ways in which cinema and film is taught and written about in academia. Two comprehensible manifestations of these efforts—namely, the book *Film Curatorship. Archives, Museums, and the Digital Marketplace*, edited by Alexander Horwath, the director of the Film Museum together with Michael Loebenstein, Paolo Cherchi Usai and David Francis, and a series of seminars and lectures[1] which have taken place at the Film Museum as part of the curriculum of the Theatre, Film, and Media Department of the University of Vienna since 2003—will be looked at more closely to examine the new perspectives they bring to watching and thinking about film. These efforts—the publication and the series of seminars—can thus be seen as providing yet another perspective on a whole series of proposed perspectives one encounters in one's biography as a cinephile.

The following attempt to conceptualize the Film Museum's efforts to bring a curatorial perspective into academia aims to add a layer to the idea that our biographies can be read along the lines of the films we have seen. Allowing myself to speak of my own "biography of perspectives," I could talk about my early passion for films, where my fascination mostly derived from watching films in spite of my parents prohibition to do so, to a hermeneutic, semantic approach to films in the context of my studies at the Universiy of Mainz, to a

perspective that would focus on the visceral qualities of the film experience at the University of Wellington, New Zealand. Upon leaving university and having to find out how to make a living by working within the so called "film business," an economical perspective is added to an understanding that mostly perceived film as an art, such as assessing the market value of screenplays for Studio Canal. When beginning to work at an instiution such as the Film Museum, yet another perspective is added—a curatorial one. It is important to note that what is suggested here is not that one perspective takes over the space of another, but rather that perspectives accumulate and intertwine, are re-arranged and fuse over the years and in the course of encounters with institutions (as well as, of course, individuals). What exaxctly does the curatorial perspective entail and in how far does it allow for a new *angle d'attac*; what can it add to an understanding of film, and which elements, layers and approaches can it offer will be articulated on the following pages.

Film Curatorship: Hands-On Theory

What is film curatorship? At the end of a long series of discussions, carefully chosen case-studies and articles, the four editors of the above-mentioned book come up with a possible definition: "The art of interpreting the aesthetics, history, and technology of cinema through the selective collection, preservation, and documentation of films and their exhibition in archival presentations" (Cherchi Usai et al. 2008, 231). While the first part of the definition would suggest a smooth, friction-free integration of film curatorship into an academic discourse which in itself entails various methods of "interpreting the aesthetics, history, and technology of cinema," the latter part touches upon the specific approach of a curatorial perspective: Film curatorship articulates its interpretation of cinema through a set of practices, namely "the selective collection, preservation, and documentation of films and their exhibition in archival presentations." It seems to make sense to stress this point in order to clarify how far a curatorial perspective differs from what is being taught at university. Indeed, it is the encounter with film in the context of a museum institution—in the fields of collecting, preserving, restoring, documenting and exhibiting film on a daily basis—that produces the framework from which the act of interpreting cinema is derived. Thus, in order to actually develop a curatorial perspective one needs to be in contact with the practicalities of curating, which take place in institutional spaces such as the museum. Bringing the curatorial perspective to students who spend most of their time within the structures of classical accademia basically means bringing the museum itself to academia, fostering curatorial thinking that is itself the product of a museum structure to the university.

Since those who have taught the seminar of "Film Curatorship" (Alexander Horwath, Michael Loebenstein and myself) are (or were) staff of the Austrian Film Museum, this means that we have, in a certain sense, offered the Film Museum in its entirety to the students. This meant giving them an insight into the different departments—the archive and its different collections, the restoration department, the education and research department, the program- and shipping department, the DVD- and book-publications—and, most importantly, to lure them away from the institutional context they are used to, and bring them to the Film Museum. The 24 hours of seminars are spent in their entirety at the Film Museum, or—to be more accurate—in its exhibition space, the Invisible Cinema 3. Besides being a space specifically designed to watch films in their original format and under ideal conditions—an aspect I will return to at a later point—the cinema can also be understood as the core of the institution, as the nucleus from which the aspects of preservation, restoration, education and exhibition are thought of, and into which these areas of curatorial practice flow back cyclically.

Since its foundation in 1964, the cinema space was considered to be at the heart of an institution that was meant to provide for film the same respect and care as other museums offered to their respective art forms. Introductions, publications, discussions and all the things that one can find at the Film Museum today, were secondary priorities at first. The central idea of the Film Museum's founders Peter Konlechner and Peter Kubelka was to exhibit films in the best possible manner—respecting the original formats, language and projection speed. There was no interest in showing objects such as screenplays, costumes, editing tables, posters—elements that are part of the production and marketing processes of film. Instead, the central aim of the Film Museum was to present film itself, in the best possible manner. As early as 1958 (Kondor 2014, 42), Peter Kubelka had been working on a concept to build the ideal cinema. It was to be completely black and would provide a perfect viewing position to each visitor. While the first version of this "Invisible Cinema,"

as he called it, saw the artifical light of day in New York upon the founding of Anthology Film Archives, a second version was built in Vienna in 1989, followed by a third version in 2002.

Why then can the cinema at the Austrian Film Museum be considered as the centre of an institution whose dealings with the medium of film encompass such varied practices as preserving, restoring, teaching, researching and exhibiting film? Because the central goal of the Film Museum is to exhibit film in its original format in a cinema space, there are inevitable consequences for the collection policy of the institution. It will collect film only in its original format and will not start to preserve DCPs of films made in the analogue era. It will undertake its preservations with the sole intent of creating an analogue film print (as opposed to a DCP), and it will mark a preservation as completed only when a film is shown in its original format. It will try to conceptualize its educational activities so that younger people can learn not only of the formal and aesthetic qualities of the cinematic format, but also the material history of the medium and the specific qualities of the cinema space.

In order for this interlocking of different curatorial activities to become visible, the students have to be at the instution itself, spend time within the cinema space, and be able to meet colleagues from all departments of the Film Museum. They must comprehend both the architecture of the place and its infrastructure, and they must experience film as it is being exhibited in that institution; getting crucial insights into the different layers of curatorial work that lie behind these exhibitions. They must become aware that film curatorship can be regarded as just another theory (whose definition stands at the beginning of this chapter) but one that actually exposes deeper layers of meaning when one encounters the hands-on day to day work at such an institution.

Film Experience: History, Apparatus, Passivity

So how would the student's presence in the cinema multiply the possible perspectives of thinking about the film medium? How could one define the presentation dynamics of a cinema that is capable of playing 8mm, 16mm, 35mm and DCPs formats of films? How does this add to a student's possible approach to the medium and is that perspective absent from regular academic film studies?

A first possible dimension can be traced in the following remark that Alexander Horwath makes about a museum's task: "In relation to film, a museum essentially needs to preserve, show, and interpret *not just* an object/artefact, but *a system,* more specifically: *a working system*" and later adds "in film, the 'artefact' to be transmitted into the future is not just (but also) the strip, not just (but also) the apparatus, not just (but also) the screening space; what needs to be transmitted into the future *is the set of relations between them while they are in performance*—the working system" (Cherchi Usai et al. 2008, 85-89). To emphasize what is being put at stake here: In the Film Museum's understanding, film is not to be understood as an object (be it in the form of a celluloid print or a BluRay, DVD or harddrive containing a DCP) and it is also not to be understood as just the images we see (may that be on a screen in a cinema or a tablet interface), rather it is seen as a working-system, an event, where different elements (such as the filmstrip, the projector, the dark space and the architectual setup of projection, audiance and screen) have to interact with each other "to make film happen."

Why then would one insist on looking at film in such a way when generations of film scholars have written volumes of books, essays, reflections on film without having seen them in a cinema? The counter question to this proposition would be: Why do most art historians insist on working in the presence of the original paintings when writing on an artist? Because there is a specific awareness that an artwork only unfolds its multiple dimensions of meaning (and thus of perspectives to be looked at) when the images that we see are put into a relation with the materials these images appear on and the technologies they are based on. As Malcom Le Grice puts it: "The technologies of cinematic production are not 'neutral' in relationship to the ideas produced and promoted through them. The technologies already embody (cultural) intellect, motive, ideology and consequently all artefacts produced through these technologies have the characteristics of dialogue with this embodied 'intellect.'" (2009, 236).

To encounter the films in an exhibition space in their original formats—in the context of a working system—means to be provided with an experience that both entails the historicity of a film's aesthetic as well as well as the apparatus' role in forming the experience of watching films[2]. The two-hour discussion with the

students at the end of each seminar was specifically dedicated to discovering how this seminar differed from the encounter with the medium in their ongoing studies at the university: it confirmed that most students had not given any thought to these two elements. Encountering films in the cinema after being sensitized to the apparatus and its materiality linked the images they encountered on the screen to both the technology that made these images possible, as well as to the space that shaped that encounter. In a seminal text that was always on the reading list, Volker Pantenburg states: "one moves on sandy soil if one wants to talk about *the* cinema experience—just as *the cinema*, it does not exist" (2010, 42). In its seminars, the Austrian Film Museum places all of its screenings in the cinema, making this the starting point for the relationship between film, apparatus and aesthetics. On a regular basis, the seminar also entailed visits to other institutions, using other modes of exhibiting film—such as the MuMOK (Museum moderner Kunst Stiftung Ludwig Wien)—and thus placing the cinema experience into relation with other apparatuses, which were then verbalized in discussions with curators from these respective institutions[3].

In general, about half of a seminars' overall duration were spent in the cinema watching film in the context of curated programs that would later be reflected upon. It might be surprising, but this rather small act already marked a decisive deviation from the student's experience in their academic studies, where they would never see a whole film together, would never see it in its original format, nor talk about these aspects and mostly spent their time at university talking about theoretical texts or analyzing carefully chosen extracts of films.[4] While these forms of teaching film may make sense on various levels, they also formulate a certain approach to film, an approach that stresses the active participation of the viewer, that emphasizes the act of analysis and intellectual thought in the encounter with film and at the same time leaves out an element that is essential to our understanding of film curatorship; namely, that film is an experience. The cinema as a space for film fosters an understanding of the value of passivity in aesthetic experience, freeing the students from the constant demand to analyse, interpret, react—and instead places the act of watching a film as something of educational value within itself. As the philosopher Kathrin Busch notes in her book on passivity: "Taking into consideration passivity is based on the idea that acting and producing cannot be disconnected from the impulses, affects and invocations, which they answer to" (2012, 11). The seminars on film curatorship take their queue from this conviction: to study film is first and foremost also an act of experiencing them. The cinema space, as the Film Museum understands it, is not only history's most dominant form of this practice, but also its most insistent one when aiming to understand how film itself thinks and how it articulates itself for us both sensorially and intellectually.

Programming: For a Different Understanding of the Medium's History

After emphasizing the centrality of the cinema as a space of experiencing film within the seminars, we must now talk about what exactly is being shown in these screening sessions that take up approximately half of the seminar's time. While the actual programs change every semester and are always dependent on the day's or session's topic, there is nevertheless a core guiding principle that we have tried to follow and which would make up for yet another multiplication of perspectives.

While one might detect a slow broadening of modes and genres, which are taken into consideration in academia, there is nevertheless a prevailing understanding of film, its history, and its aesthetics which is mostly based on the most commercially valuable and dominant forms, namely the feature length documentary and fiction film. Working in an institution such as a Film Museum, one quickly comes to understand that those forms that are generally perceived as fundamental for our understanding of cinema only make up a small quantity of cinema's actual history. Film collections around the world tell a very different story, and are largely made up of films from the realm of amateur film making, including works from the early period (that which Tom Gunning has called "The Cinema of Attractions") of the medium's history, encompassing industrial film, advertising, avantgarde and experimental cinema, outtakes from major works of film history or such curiosities as a compilation made by an anonymous film projectionist who stuck together images of naked women he had cut out of a vast array of films.

The carefully curated programs during our seminars try to do two things at the same time: Firstly, these films are projected in the cinema, thus giving them a second life on the screen and in the student's minds.

Secondly, and just as importantly, we try to program these films in such a way that their interrelationship with the more prominent works in the medium's history becomes visible, standing side by side in one and the same program and eliminating the hierarchies between that which is deemed important and that which is deemed expendable.

After a couple of programs of this kind, ideas of what film is gradually change. Film is now not only an art form or a way of documenting the real world, it also becomes a vessel for personal memories that are in dialogue with historical events—as is the case in amateur filmmaking. Through the inclusion of industrial films and advertising, film's function as an organizer of daily life as well as a tool to spark consumption and market economies becomes visible in a way that is seldom included in academic thinking about film. Being confronted with films like these represents a moment of alterity with regards to what is considered worthy of our interests and intellectual rigor in academia. Here are films that no one has written about, whose auteur cannot be named, whose historical significance has not yet been determined. These films are surely part of the medium's history but have largely been neglected, precisely because the beginnings of film studies have been based on concepts such as the auteur, important periods and the premise that film is an art form; theoretical constructs that leave little space for the stepchildren of the medium's history.

These film programs, I would argue, allow for a multiplication of perspectives on the medium of film in two ways: on the one hand those works and cinematic forms that were unknown to the students provide the opportunity for a fresh way of seeing. What counts first and foremost in an encounter with unknown materials is not what we have read, have understood, have already cateogorized about it, but the experience of watching itself and the effort to contextualize. On the other hand, the intertwining of such works with better known works, such as, let's say, Jean-Luc Godard's *Le Mépris* (1963) or Dziga Vertov's *Čelovek s kinoapparatom* (1929), provokes a different understanding of the medium's history, one that does not jump from one master-piece to the next until we finally reach the present, but rather provokes a sequential understanding of history, as Siegfried Kracauer has suggested in *History: The Last Things Before the Last*.

Programming film thus becomes an educational act in these seminars, yet another possibility to reject the usual understanding of the medium's history as a chronological progression. A film program and its potentially endless possibilities to form constellations between films carries the potential of making the spectator look at the medium differently, to include forms that have not yet been brought to his attention and to bring them into a relationship with that which is already familiar to him/her. It is important to note that this way of pro-graming, as well as the choice of this film over that, is not something that the lectures randomly decide upon, but is in itself rooted in the film collection of the Austrian Film Museum. Thus, through these programs, the students also get a better understanding of what a museum's collection entails, what it is made of and the challenges it poses to those taking care of it.

Archivist, Programmer, Restorator, Educator, Artist: Film is in the Eye of the Beholder

By this point, one could rightfully ask: does the Film Museum's aim of integrating a curatorial perspective into the academic study of film consist only of bringing the students to the cinema and showing them films and/or film programs that bring into dialogue the neglected parts of the medium's history and a few classics that every student of film knows? In the last part of this paper, I will try to outline the "everything else" that makes up these seminars. Nevertheless, I have decided to articulate the role of the cinema and film programs first, since they are—as I have tried to outline at the beginning—the core of the institution's mission as the Film Museum understands it. Coming back once again to the cinema space, we have always tried to make students perceive it as a "chamber of echoes," where different voices are heard, overlap, and form cacopho-nies. Indeed, this could serve as a metaphor for what is attempted in these seminars on a larger scale: for the duration of a seminar and in the cinema space, the voices of the films themselves interact with the voices of the students and the voices of the lecturers—as well as those of our guests, who come from various spheres of curatorial practices.

While each semester tries to create an arc that provides a multilayered perspective on the practice and theory of curatorship, single sessions try to point out one aspect of it. A day might start with a conversation via skype with a director of a different Filmmuseum, trying to establish how different the actual curatorial

work of a director is in a state-sponsored institution such as the National Film and Sound Archive of Australia, or in a more club-like structure such as in the Austrian Film Museum. Part two of such a day could then be led by the Film Museum's head of collections, who would talk about the changes that the trademark logos of film studios have undergone over the course of cinema's history, referring to—and showing elements from—the film collection as well as the paper, poster and photo collections, talking about the value of these materials in terms of historical research but also about the actions that have to be undertaken to catalogue, preserve and make these material accessible. At the end of the day, two colleagues from the restoration department would try to give an introduction to the theoretical discourses surrounding their trade, while at the same time exemplifying the nuts and bolts of the restoration process—by showing a print before and after the process, discussing steps that were taken, problems that surfaced and choices that were made. The next day could start with a film program and theoretical discussions about media specificity or the cinematic dispositif, followed by a "nuts and bolts" discussion with the head of the programing department to get an understanding of the amount of work that goes into finding screenable prints, the network of archives behind these processes as well as the changes that the industry's transfer to digital has caused. At the end of the day, we might be in the lucky position of having a guest from the MoMA film department and finding two hours to talk about one of the oldest film heritage institutions and its curatorial concepts in the present.

Including artists in these seminars on curatorship is also of central importance; for example, Gustav Deutsch, who has been working closely with and in archives to make works such as the *Film ist.-* series. What becomes visible in the encounter with filmmakers is a poetic perspective on the medium[5] and a concept of the museum collection that does not only preserve the objects for future generations but actually re-infuses them into the present; becoming a source for artistic work. Screening *Film ist. 1-6* on a 16mm print after such a discussion can certainly be described as a new experience. One suddenly does not only see a smart found footage film about possible ontologies of the medium, but a poetic act of giving shape to an archive of images, a poetic approach to organizing a world of images, an act of interpreting the history, technology and aesthetics of cinema.

Conclusion: Curatorship and Experience

It has proven a good didactic concept to compress these 24 hours of seminars into one week. Bringing the students to another place, showing them films in the cinema and confronting them with multiple curatorial perspectives within a condensed time-span can create an experience that allows for one institutional perspective (the university) to step aside for a moment and bring another into play—not to overwrite the other, but instead to bring into focus what lies at the core of linking curation to academic studies. Fundamentally, our perspectives on—and consequently, our interpretations of—a medium are highly influenced by the institutional context they are set in.

The way the Film Museum has tried to bring a curatorial perspective into play was to create a seminar that tried to intensify the multi-layered perspectives that can be found under the roof of a Film Museum. These are influenced and shaped not by watching excerpts of films on DVDs, reading lists, theoretical discourses and the need to have good marks, but by seeing films in their original format, taking care (that is what "curare" means) of them in the acts of preservation, restoration, education and exhibition and knowing about their material, economic and theoretical realities. To clarify: this is not to say that one perspective is more valuable, or more relevant than the other, but rather to suggest how very differently they turn out depending on the relationship one has with the object they aim to interpret—be it by writing a theoretical book or curating a series of films.

Film curatorship brings to academia an alternative and complimentary way of looking at film. While it does take theoretical approaches into account, it also tries to opt for a perspective that includes the material realities of the films as they become visible in cinema screenings and through the discussions with the representatives of a museum institution. It has the capacity to broaden our understanding of the medium's history, to include forms of film that are commonly not part of academic discourse, to infect our thinking about moving images with reflections on the influence of the apparatus, materiality and experience and to place our understanding of film in another institutional context that is not the university. At the end of the week, the

university's perspective might become the dominant one again, but the last couple of years have proven that several cinephiles' biographies have been shaped by an encounter with a different cinema institution and its perspectives.

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Endnotes

1   At the centre of this series lies a recurring seminar entitled "Film Curatorship" which was devided into two parts: Part I was called "Film Material: To Preserve and Project," Part II was called "Film begets Film. Programing and Utilization." Since 2015 the series continues with seminars dedicated to specific elements within the concept of Curatorship, such as the practice of Found Footage filmmaking, the educational potentials of film, or the exhibition of films in different contexts, such as the school, the cinema and the gallery space.

2   Frank Kessler has written on the twofold purpose of screening early films for audiences today in museological screenings: "On the one hand, they pursue a didactic or scholarly project of providing a framework for today's spectators to appreciate these films as historical objects, that is with regard to their original viewing contect, their functions and what they may have meant to their audience at the time. On the other hand, such screenings also want to offer a specific aesthetic experience, which is obviously different from the one viewers are used to nowadays when going to the movies, but which for that very reason should give them a new and unexpected kind of pleasure" (2011, 137-146).

3   Conceptualizing film history as a history of technology has been central in this seminal book in the context of thinking about/teaching cinema with a focus on its apparatus (Fossati and van den Oever 2016).

4   What is being stated here is based on conversations with the students after the seminar and describes their experience of studying film. While a number of universities actually collaborate with cinemas and museums and integrate screenins of prints in their original format into the teaching practice, this surely is not the case for the majority of film departments.

5   Such as Gustav Deutsch's and Hanna Schimek's approach to the archive which is inspired by Aby Warburg's concept of the Mnemosyne.

Learn Then Preserve

Historical and Theoretical Notes about the First Fifteen Years of the University of Udine's Archival Training Program (2001-2016)

Simone Venturini

1. Learn then Preserve

In 2002, the Danish Film Institute published *Preserve then Show*, the well-known proceedings of the Copenhagen Seminar of 2001. This state-of-the-art meeting was devoted to some of the new challenges faced by film archives at that time: the shift in film's ontological status; film storage surveys and assessment, and their effects on preservation policies and strategies; the new world of digital restoration; and the issue of film selection and transmission at the dawn of the digital access era.

In the introduction, Dan Nissen explained how the seminar's title was a "mirror image" of Langlois' statement "to show is to preserve" (Nissen et al. 2002, 9-12). The aim was to overturn archival priorities, by offering an overall synthesis of the opposing ideologies of Lindgren and Langlois. In addition, the seminar sought to pave the way for new preservation strategies a few years before the emerging paradigm of large-scale digitization and digital access, countered by those movements demanding the curatorship and musealization of film artefacts and by the resilience and rebirth of analogue film stock and devices.

Since the millennium, film archives have been grappling with the transformation of their historical status and the emergence of new institutional identities, while taking on more and more complex and stratified roles, functions, required skills, and institutional, economic and social relationships.

Similarly, the scholarly community is facing a far-reaching change in its scientific purpose—its research and didactic tools and disciplinary boundaries—and is gradually losing its historical position of dominance and exclusivity in research and knowledge transmission.[1]

Since the late 1990s, more and more archival roles and university positions have been covered by persons and scholars who have (also) acquired their wider knowledge, specific competencies, and skills through specific archival training programs and internships. Others have also achieved academic qualifications or advanced their careers by working on archival topics. If we are to further paraphrase the title of the DFI Seminar, we can obtain a new "mirror image," with an additional epistemic layer: *Learn then Preserve*.

2. The University of Udine's archival training program: the early years

The Udine archival training program blends humanistic traditions and technological innovation, in a balanced approach combining strict training on cinematographic works, documents, materials and technologies, and the acquisition of creative skills and practical abilities. It also involves a great deal of different disciplines and innovative teaching methods, based on the principles of participation and cooperation (applied interdisciplinary projects, use of digital resources and tools, intensive seminars, practical exercises, lab teaching, specific training placements, involvement of experts and professionals for seminars and temporary professorships).

The master's degree in *Scienze del Patrimonio audiovisivo / Educazione ai media* ["Audiovisual Heritage and Media Education"] and the PhD in *Storia dell'arte, cinema, media audiovisivi e musica* ["History of Arts, Cinema, Audiovisual Media and Music"] train highly specialized graduates in the field of film and video preservation and restoration. The close connection between the course, film and video heritage institutions and private companies enables the students to come into immediate contact with a full range of academic, professional, archival and museum spheres, and to obtain specific skills and know-how.

The course dates back to the beginning of the 2000s, at the crossroads between the apex of reflections on the philology and restoration of analogue film initiated by the Italian School of film restoration,[2] the spread of film artefact analysis, monitoring and long-term preservation models, and the new challenges of digital.

Within this framework, under the directorship of Leonardo Quaresima, the University of Udine launched a new BA course (under the L-3 national category of the Performing Arts) for the 2000-2001 academic year which included a specific curriculum devoted to audiovisual archival training.

A long-standing supporter and collaborator of the main international festivals devoted to Film Heritage, and one of the driving forces behind the pioneering *Archimedia* project, the farsighted Quaresima accompanied and in some cases preceded the movements that achieved a new dialogue between archives and universities in the 1980s and 90s:

> Leonardo était en train de réaliser, intellectuellement, pratiquement et institutionnellement (ce qui en soi n'est pas rien!), sinon la synthèse, du moins la convergence de la recherche théorique universitaire, de la construction historique et de l'émergence des archives, émergence dans laquelle l'Italie a joué dans les années 1990 et joue encore un rôle de premier plan grâce à quelques hommes remarquables comme Paolo Cherchi Usai, Gian Luca Farinelli, Nicola Mazzanti et Leonardo, pour ne citer qu'eux (que les autres me pardonnent), pour créer un véritable dialogue entre universitaires et archivistes (Vernet 2017).

The commencement of the program must also be framed within the wider project to create a stable base for Film and Media Studies in Udine, spearheaded at the time by the combination of the Udine International Film Studies Conference (begun in 1994) and the Magis – International Film Studies Spring School (devised in 2002 and inaugurated in 2003).[3]

Since the very beginning, as part of a wider film and media studies program, the specific archival training program included courses and professorships in "Teoria e tecnica del restauro cinematografico" ["Theory and Technique of Film Restoration"]; "Documentazione Cinematografica" ["Research on Film-related Materials"]; "Laboratorio di restauro cinematografico I e II (base e avanzato)" ["Film Restoration Laboratory I and II (basic and advanced)"]; "Chimica dei supporti audiovisivi I e II (base e avanzato)" ["Chemistry of Audiovisual Materials I and II (basic and advanced)"]. In the early years, temporary professorships were held by Paolo Caneppele, Gian Luca Farinelli, Nicola Mazzanti and other younger collaborators and technicians from the Bologna School.[4]

Since the very first years, local audiovisual technicians and young graduates from Bologna helped the degree course to substantiate and develop the archival training curricula. This paved the way for a future class of professors, lecturers, technicians and collaborators trained entirely within the university, in partnership with Italian and European archives and laboratories.

No close connection between theory and practice—or university-archive dialogue to form a shared

training plan—could have been possible without the presence of the university laboratories specializing in scientific research, teaching and performing film preservation and restoration projects under contract for film and audiovisual heritage institutions.

And so it was that in 2000 Quaresima founded the CREA and La Camera Ottica laboratories. The focus of the CREA laboratory was on audiovisual post-production, over time playing a core role in the transition to digital. La Camera Ottica film and video restoration laboratory came about with the purpose of supporting teaching and scientific research in the sector. By attending lessons and gaining experience in the lab and on special placements, the students acquired practical skills and abilities in the field of film preservation and restoration.

In 2002-2003 Udine was one of the first universities to introduce a master's degree in *Discipline del Cinema* ["Film Studies"] (two-year course equivalent to a Master of Arts, following the 1999 Berlinguer Reform), with specific courses dedicated to archival practices. Starting in the 2007-2008 academic year, a new joint master's degree course was offered in *Discipline del Cinema/Etudes cinématographiques* with the Université Paris III – Sorbonne Nouvelle. This joint master's program set out to unite the cultural outlook prevalent in Paris, with its many resonances around cinema and contemporary image forms, with that of Udine, with its stress on the cinema as cultural heritage.

In 2003-2004, the new PhD in *Teoria, Tecnica e Restauro del cinema, della musica, dell'audiovisivo* ["Cinema, Music and Audiovisual Theory, Technique and Restoration"] completed the training courses on offer. This course too became international in 2006. Right from the start, the PhD has strived to train researchers with specific profiles and CVs specializing in archiving, preserving and restoring film, musical and audiovisual works, and in film, music and audiovisual archive management.

The period from 2000-2001 (when the BA was established and the laboratories opened) to 2006-2007 (when the PhD went international and the first students graduated from the local master's and PhD courses) can be considered the phase of the establishment and primary consolidation of the Udine archival training program experience. Considerations must be made about 1) the teaching methods and 2) the theoretical frameworks used as a reference for the study program in that period.

Firstly, teaching methods. While on one hand they still appeared anchored to a traditional model, at the same time they were already opening up towards innovative and specific techniques and experiences which are now very well known and widespread: learning by doing; flipped classroom; open digital repositories; involvement of world-level archival experts in workshops and temporary lectureships; intensive work experience; internal internships and participation in research and preservation projects in the restoration lab; intensive training on specific archival practices such as storage or cataloguing, or on state-of-the-art hardware and software for preservation and restoration.

Secondly, as far as the benchmark theoretical frameworks were concerned, the contents of the courses devoted to archival practices: a) followed the precepts and methods of the Bologna School matured in the 1990s and summed up in 2001 in *Storia del cinema mondiale* by Gian Piero Brunetta (Canosa 2001; Farinelli and Mazzanti 2001; Cherchi Usai 2001); b) followed the studies on photochemical restoration matured by the Gamma Group and summed up in 2000 in the volume *Motion Picture Restoration* (Read and Meyer 2000); c) studied the management, monitoring and long-term preservation of film materials, developed in particular by the Image Permanence Institute; d) carried on the tradition of historical-philological studies on the multiple and plural forms of film; e) followed the technological history of cinema and the material forms of film and cinema devices, according to procedures and practices that in certain ways anticipated current experimental media archaeology.

In terms of applied research, the Udine group started to deal with film sound (also owing to joint work with the musicology laboratories specialized in preserving and restoring sound documents present in the same study course), acquiring state-of-the-art professional equipment to start to preserve and restore film soundtracks.[5] Parallel to this, the research group and the correlated teaching began to deal with the preservation of obsolete analogue video media.

In both fields, the research group developed methods and protocols that are still in use today, with specific attention to video art preservation and restoration (Bordina and Venturini 2006; 2012). The protocols and case studies (drawn from the actual preservation of historical archives, such as the Venice Biennale Archivio

Storico delle Arti Contemporanee collection of video art and collaboration with *L'Immagine Ritrovata*) then became contents and guidelines for the theory courses and lab experiences and the subject of the internal student placements. The analogue video media and soundtrack digitization practices, and development of protocols and IT environments for the management and documentation of these processes provided the archival training program in Udine with immediate and real points of access and transition to digital.

3. From Restoration to Preservation and Access

The program's declared continuity with the Bologna School provided the teaching with a solid theoretical and methodological framework. On the other hand, however, the film restoration theory component based on the concept of film-as-a-work-of-art was a limit that had to be overcome, and so the Udine group shifted its research and teaching interests towards preservation theory.

This shift initially took place along three axes: studies on the management, monitoring and long-term preservation of film and audiovisual materials; European studies and projects aimed at defining guidelines, protocols and digitization, archival and digital access models;[6] and the adoption of non-theatrical heritage as a line of study, that is, those significant parts of audiovisual heritage that consist of materials outside the official production and distribution system. Several expressions are currently used to define this extensive and hidden domain of film production: non-fiction films, ephemeral movies, vernacular images and neglected cinema. However, the expression "non-theatrical" (Streible, Roepke and Mebold 2007) is particularly effective in indicating any audiovisual work that is not distributed in cinemas and instead serves different purposes: military training films; scientific and medical films; educational and religious films; amateur, industrial, ethnographic, or tourism films.

These three axes are linked by their shared attention towards whole collections and classes of elements. As a result, the pivot and applications of the studies shifted from the single *individual* to the *species*, from documentation of film restoration to building databases for the quantitative analysis of data and for sharing acquired knowledge about the materials and know-how with end users and stakeholders.

Lastly, for La Camera Ottica laboratory the shift in paradigm became a business spin-off project called *ReDial (Recovery, Digitization, Access, Linkage)*. In 2007 the business project won the "Premio Start Cup - innovazione nei beni culturali" [Start Cup Award for Innovation in the Cultural Heritage]. Adopting the so-called "long tail" guidelines (Anderson 2006), innovative technologies and enhancement strategies, *ReDial* aimed to recover and regain access to marginal audiovisual products with a high rate of obsolescence. By safeguarding non-broadcast videos and non-theatrical cinema it pinpointed a wide field for research and didactics, and began a virtuous entrepreneurial product for the research laboratories and students, university and archives.

Along this line, the more the research groups took care of and coordinated the preservation projects in close contact with the archives and Italian and European institutions,[7] the more the knowledge and competencies to transmit were updated and consolidated in the meeting between theoretical-methodological reflection and the archival practices applied in the lab courses and internal placements with La Camera Ottica. In addition, it also led to an increase in the network of institutions where internships could be requested and the students could then find work.

To this end, between 2009 and 2012 La Camera Ottica completed its equipment for the video preservation sector, and designed and created its own 2K film scanner prototype for small formats (8, s8, 9.5mm, 16mm). Further, it added a professional 8mm to 28mm multi-format scanner (MWA Choice), extended the digital restoration and colour correction sector, and promoted ICTs for the archiving and management of the digital master, copies produced, and documentation of the preservation processes.

Hence the project was emblematic of a wider shift in the archival training program (its goals, teaching programs and training profiles) from a film restoration paradigm to a preservation-and-access paradigm focused on wider film collections. It also made a definite step towards digital for the production of preservation master and access copies instead of restoration, in terms of repairing, cleaning and touching up materials. The teaching program was also affected, an example being the introduction of a course on *Principi di conservazione e preservazione del film* ["Film Preservation and Presentation"].

4. The IMACS Master, archival profiles and internship experiences

As of 2010-2011, again thanks to Quaresima's proactive drive, the master's course went even more international, forming a network (IMACS) of 12 European and North American universities before its reorganization in 2015.[8] The current structure of the master's degree course in *Scienze del Patrimonio audiovisivo / Educazione ai media* ["Audiovisual Heritage and Media Education"] / *International Master in Cinema and Audiovisual Studies* (*IMACS*) derives both from the various past layers of the archival training program (therefore it still features the same key aspects, characteristics and focal points outlined hitherto) and a changed set of politico-cultural, economic and research perspectives.

First of all, the aim of the IMACS master's course in recent years has been to transmit general knowledge in order to create solid and wide-ranging familiarity with the scientific, cultural and professional field that can be used in the mid to long term. Different disciplinary fields come together to impart these basic areas of knowledge. For example, the Italian tradition of historical and philological studies has now become part of the larger sphere of new film history and media archaeology, which place a great deal of emphasis on "laboratorial" and "experimental" teaching methods, heavily involving direct contact with documents, film and audiovisual materials and technical devices. (In 2016 Udine became the first university in Italy to offer a media archaeology course taught in English.) Similarly, the Italian theory of preservation and restoration is moving in sync with visual studies and wider media and archival theories.

Another specific sphere of learning includes the study of film, visual arts and new media relations, and preservation methods and practices in contemporary visual arts. Finally, a last training area concerns digital humanities and media literacy, digital archives and ICTs. Its purpose is to connect the digital preservation of audiovisual heritage, the digital sharing and transmission of knowledge on this heritage, and entrepreneurship and cultural consumption. Thanks to this knowledge, specific archival practices are learnt, including study of original and film-related materials; collection preservation and management; cataloguing and documentation; photochemical and digital preservation workflow; digital restoration techniques; archival and digital preservation models, strategies and practices; film reuse, valorization and presentation practices. Starting from these basic sets of knowledge and skills, the master's program aims to prepare its students in specific sectors.

An important specialization is represented by collection management. The master's course aims to train new generations of workers and managers whose skills can be put to the service of planning collection management and preservation.[9] A further, and complementary, sphere of specialization is data and metadata management and preservation. The understanding and application of theoretical models, cataloguing standards, sustainability strategies and protocols require know-how and skills that are still not so widespread.

The entrance of film and analogue video into the museum and cultural heritage spheres also makes it pressing to train experts in the field of museology, contemporary visual arts, virtual heritage, digital storytelling and new media. Here, video preservation occupies an important niche for specializing in and learning preservation methods, protocols and techniques, and presentation for the museum field.

The increasing attention being paid in the sector to so-called "orphan" and "non-theatrical" heritage means that new skills are needed for the analysis, cataloguing and interpretation of originals. It requires openness towards a varied set of sources with unusual or weak hierarchies, and towards a whole range of disciplines in order to give meaning and value to these kinds of twentieth-century audiovisual artefacts, only partially preserved by traditional film archives.

Such an extended and fragmented research field and market demand will increase the need for professional figures in the cultural marketing sector: these figures must be confident with institutions' archival practices and materials, and well aware of the legal, ethical and practical issues implied in handling a heterogeneous cultural heritage for cultural and commercial purposes. Based on the main legal framework drawn up in 2012 under the European Directive 2012/28/EU and subsequent projects and activities such as the Orphan Work Database (Office for Harmonization in the Internal Market, OHIM) and the FORWARD Project, a further objective of the archival training program is to promote professional figures who can create a fruitful exchange between public institutions and private stakeholders.[10]

Furthermore, specialization in the digital humanities applied to film and the audiovisual heritage is also of particular interest. In the last ten years, the employment of digital tools for research has become one of the

key innovative features of media studies. The digital turn has, in fact, provided both new access possibilities and new tools for handling large amounts of data (film and audiovisual texts) and metadata (related to the film/video context and their archival life). Thus our training program has started to focus on digital analysis methods such as pattern matching (for instance, the use of specific colour film stocks in the amateur domain), large-scale investigation of particular stylistic features in the heterogeneous "orphan media realm" and multiple-scale analysis (interactions between the macro and micro scales) (Lundemo 2016; Olesen et al. 2016). The digital humanities will help students explore the connections between archive theory and museum theory, to employ distant reading tools (Moretti 2013) and to elaborate multi-layered access platforms. Moreover, the digital humanities provide a deeper insight into practices that reuse, recycle and remediate found footage and archival materials as artistic items in various areas of contemporary culture, including museum exhibitions and digital environments.

The field of digitization, restoration and post-production (scanning, digital restoration, colour correction, production of master and access copies, etc.) has now become a familiar subject (Venturini 2012 and 2013; Frappat 2011 and 2013), widely proposed in training courses. Nevertheless, it should be noted that the diffusion of these practices (previously in the hands of a few archives and laboratories) is now generating a whole range of digital output and processes, whose results cannot yet be assessed in terms of the quality of the digital master, access copies produced, or their effective interoperability. As yet, the sector has not fully assumed or applied shared standards and protocols, and careful training is needed with specific skills and general knowledge of the short- and mid- to long-term problems, especially considering that phases of radical transition are also those most liable to incorrect and distorted transmission (or even loss) of information.

Once the know-how and skills have been learned, before going onto the internship and thesis project stages, the program offers advanced and intensive training activities such as the FilmForum (which for some years now has included the International Conference and the Spring School for PhD and Master's students). The connection between the archival training program and these intensive programs can be seen in particular when looking at the most recent topics of the Conference (the Film Canon, Archives, Film Rights, New Film History and Media Archaeology, the long-running "History of Cinema without Names" project—Bianchi, Bursi and Venturini 2011; Bordina, Campanini and Mariani 2012; Bertolli, Mariani and Panelli 2013; Beltrame, Fales and Fidotta 2014; Beltrame, Fidotta and Mariani 2015; Cavallotti, Giordano and Quaresima 2016) and at least three sections of the Spring School (Film Heritage, Media Archaeology, Cinema and the Visual Arts). The School, Conference and other seminar initiatives at various points in the two semesters allow the students to come face to face with the most important international scholars, artists and archivists. Today the FilmForum is accompanied by other intensive programs: the Material Archival Studies Network established by the universities of Udine, Stockholm and Lausanne and aimed at the PhD students of the three institutions, carried out in collaboration with archives and laboratories; and the Lisbon Spring School, organized in collaboration with the Cinemateca Portuguesa-ANIM of Lisbon, aimed at master's students with a focus on learning the photochemical workflow.

Lastly, the archival training program sets out obligatory internships as part of its curriculum. A first possibility to gain work experience is a placement in La Camera Ottica laboratory. The laboratory also hosts interns from other training programs (such as the University of Amsterdam master's program in *Preservation and Presentation of the Moving Image*, or La Sapienza University of Rome's master's program in *Digital Restoration*), from the IMACS network, and from foreign institutions and universities. In recent years the laboratories have hosted students from the universities of Rome, Bologna, Turin, Amsterdam, Lille, Lausanne, Stockholm, Vienna, Buenos Aires, Universidad Católica del Uruguay and Universidade Federal de Minas Gerais, and staff from Italian and European archives for refresher courses (Turin, Bologna, Vienna and Ljubljana).

During the internal placements the students are included in film or video preservation projects according to their interests and course activities. They are given specific activities, carried out under the supervision of technicians and researchers. They always start by studying and experiencing the materials and then progressively try and become familiar with all the phases in the process and the technological workflow. The procedure goes from the detailed description and analysis of the collection and its state of preservation, to the repair and cleaning of the originals; from scanning to the production of preservation master and access copies. An important part of the activities are concentrated on outlining the preservation or restoration program,

collecting, organizing and archiving the metadata, and finally drafting the final report. The aim is to transmit a method and all-around understanding of the audiovisual preservation process, whatever the intrinsic aesthetic and historic-cultural value of the collection, the single materials and the technologies used.

In addition, the students in the archival training course do their placement outside the university. Over the years the program has become a trusted partner of numerous film and audiovisual heritage institutions (archives, museums, laboratories, festivals, publishers) and the list of institutions that have hosted or are hosting students from Udine is very long. To cite some from recent years: Le Giornate del Cinema Muto, Il Cinema Ritrovato, Cineteca del Friuli, Archivio Cinema del Friuli Venezia Giulia, La Biennale di Venezia (ASAC), Cineteca di Bologna, Home Movies - Archivio Nazionale del Cinema di Famiglia, Museo Nazionale del Cinema, Archivio Nazionale del Cinema d'Impresa, Cineteca Nazionale, Cineteca Italiana, La grande mela, L'immagine Ritrovata, RAI, Österreichische Filmmuseum, HagheFilm, Národní filmový archiv (NFA), Archives françaises du film (AFF-CNC), Cinemateca Portuguesa - ANIM, Filmoteca Española, Reto.ch, Slovenska kinoteka and the Cinémathèque Royale.

Furthermore, it is not rare for the students themselves to contact new institutions. This is an immediate demonstration of their maturity in creating relations and dealing with the market in question. In other cases still, during and after their degree, the students put their skills to work by offering consultancy to external facilities, using the University of Udine as a point of reference for their work, not only in preservation, but also in post-production of contemporary films based on found footage.[11]

International mobility sponsorship is fundamental. This includes funding for thesis research, foreign placements (Erasmus+ Traineeship) and Erasmus grants for outgoing IMACS students, which are supported by the European program during the two semesters spent abroad at the two chosen locations in the IMACS network.

In terms of employment, the former course students work with or are employed at institutions in the field, amongst which are the Cineteca del Friuli - Archivio Cinema del Friuli Venezia Giulia, Cineteca di Bologna, Home Movies - Archivio Nazionale del Cinema di Famiglia, Archivio Nazionale del Cinema d'Impresa, Cineteca Italiana, Cinémathèque Royale, Österreichisches Filmmuseum, Cinemateca Portuguesa-ANIM, L'immagine Ritrovata, Reto.ch, Film Restoration Lab of the National Film Archive in Mexico and Cineric Portugal.

5. An (Un)certain Future

Despite its strong points, the archival training program displays some shortcomings, risks and weaknesses. A historic shortcoming for example has been the failure to diffuse the precepts and definitions of the Italian School of restoration abroad (Wallmüller 2007; Bordina and Venturini 2012). The field of film restoration, more or less at a standstill in terms of theoretical and methodological reflection,[12] does not present clear or shared definitions for standard terms (preservation, restoration, reconstruction) and standard documentation reports, as is glaringly obvious if one compares the various archive policies dedicated to restoration.

A risk of the program derives from a decrease in the importance of the university and its single mission as a place for the production and transmission of knowledge. This holds especially true in such a young sector and field of specialization which has been to a large part derived outside of the academic tradition.

On one hand, this tendency could be found in some contemporary curatorship and museological practices, which see archives not as a place where research can be done but where it can be produced.[13] On the other hand, it is shown by the increasing number of intensive courses, seminars, conferences, scientific journals and publications promoted and organized by single institutions, federations, foundations and international associations in the film and audiovisual heritage field.[14] Also, as technocratic agency becomes increasingly widespread, more and more initiatives are increasing and boosting the spectrum of non-university knowledge and skills on offer. In this connection, sometimes the best practices and projects are once again to be found, like at the time of the Bologna School, in projects and places where archives, technologies, research centres and universities once again come together.

Lastly, a threat to the sustainability of the program is the high costs involved in managing and updating the technological equipment. The use of state-of-the-art technologies boosts the teaching experience and

fosters the osmosis between research and the needs and tasks of the audiovisual archives.

Nevertheless, what can we learn from the Udine's experience? Firstly, it must be underlined that Udine's training philosophy is based on the combination of different disciplinary fields and the convergence between hard and soft sciences, in an institutional dialogue which balances different political, cultural and scientific positions and institutions operating in the field of film and media studies and film preservation.

Furthermore, it considers archival tasks, practices and processes as only partially depending on state-of-the-art technologies, technical skills, or hands-on experiences. Following this perspective, the archival training seems to be more a complex system of knowledge-building and knowledge transmission than a technology or series of practical skills to be learnt.

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Endnotes

1   We are aware that one of the main framework of this contribution look at the historical and archaeological conditions of existence of so-called "Film Culture" and that, consequently, this means to involve different institutional and disciplinary histories. The history of film archives and scholarly communities is more and more strictly intertwined. They share from the beginning (1930s) the genealogical and epistemic background of "Film Culture," inhabited by mutual tension and conflict, but also by genuine collaborations and shared "best practices." The time span of the present contribution corresponds to a period of radical transformation from the technological point of view. Nevertheless, the field forces, processes and agencies (archives and museums, academic and independent scholars, industrial and trade subjects, festivals and so on) show analogies and a deep genealogical relationship with the period of the emergence of Film Culture. At that time, while the transition to the sound cinema has been conceived mainly and canonically as a moment of rupture, Film Culture between the 1920s and the 1940s has been more recently framed as a layered and complex system of fields, apparatuses, dynamic struggles between different agencies and institutions (See Laurent, Gauthier 2007; Hagener 2014). In the context of Italian Film Culture, a first apical moment is the 1949, the pivotal year for the establishment of a new order in the cinematography field during the First Republic era. Since the 1930s we can retrace in Italy some specific and different policies and ideas about the identity of film heritage and film heritage institutions. On one hand, Luigi Chiarini and the Bianco e Nero's group within the Centro Sperimentale di Cinematografia in Rome look at the film archives and specially to the "National Film Archive" (the future Cineteca Nazionale) as a basic "tool" for scholars and part of a broader project of Film Studies institutional acknowledgement. On the other hand, other political and cultural subjects, starting from the FIAF member Cineteca Italiana of Milan, conceive the film archives as an independent subject. In other words, in 1949 within the diffusion of the first embryonic forms of the Film Studies, also in Italy a conflicting dialectic and a first fundamental divergence emerges between film archives as libraries and tools for the scholars and film archives as museums based on preservation and cultural programming and exhibition (Venturini 2011; 2015). Similar struggles, which redefine the boundaries and the political relationships between universities and archives and also inside the single institutions, will come back on the surface of the cultural field since the 1990s in Italy in a more polycentric context, involving the Bologna cultural and institutional situation (see here the references to the Bologna School) and other places. In any case, the political and cultural struggle echoes and resonances of the last decades in Italy are still active. It is still too early to transform them in a subject for an institutional history.
2   The reference is to the so-called "Bologna school" which grew up around the encounter between university, film archives and restoration laboratories. The movement can canonically be retraced to the respective figures of Michele Canosa, Gian Luca Farinelli and Nicola Mazzanti. For a reconstruction of this context, see Venturini 2006 and Frappat 2013.
3   The conference and school have fostered contacts with film archive institutions and laboratories, thereby extending the array of possibilities for students and colleagues from Udine, and enriching the programs with presentations, seminars and teaching dedicated to archival practices. In this connection, here is a list (in random order) of figures who have made contributions: Michelle Aubert, Jürgen Keiper, Rainer Rother, Kevin Brownlow, Paolo Cherchi Usai, Jan-Christopher Horak, Michael Loebenstein, Reto Kromer, Sergio Toffetti, Arianna Turci, Nicola Mazzanti, Davide Pozzi, Gian Luca Farinelli, Sabine Lenk, Mirco Santi, Vladimir Opela, Paolo Caneppele, Giovanna Fossati and Anke Wilkening.
4   The close relationship with the Cineteca in Bologna and L'Immagine Ritrovata laboratory is also reflected in the temporary lectureships and professorships given, among others, to Paolo Bernardini, Anna Fiaccarini, Davide Pozzi, Carine Soleilhavoup and Elena Tammaccaro. Similarly, the author of this piece, pupil of Quaresima and Canosa at the University of Bologna, who then obtained his PhD at Udine under the supervision of Mazzanti, is an example of the continuity with the academic and archival side of the Bologna school.
5   The specialization would lead to the joint restoration with L'Immagine Ritrovata of The Dance of the Toys (C. Campogalliani, 1931) and the digitization of the soundtracks of films by Jacques Becker, Luigi Comencini, Sergio Corbucci, Mario Monicelli, Elio Petri, Dino Risi and Valerio Zurlini.
6   See the FIRST projects and in particular EDCine (Enhanced Digital Cinema), a project funded by the European Commission as part of the Sixth Framework Program. The goal of the archival applications of the project was

to form a digital storage and access system for film archives.

7	In the past ten years La Camera Ottica laboratory (scientific supervisor: Leonardo Quaresima; director: Cosetta G. Saba) has preserved hundreds of audiovisuals from Italian and European countries, ranging from the safeguarding of marginal, orphan or highly obsolete heritage (video art, experimental films, amateur, home movies, scientific and medical, industrial films, etc.) to the preservation and restoration of works by internationally renowned authors and artists, amongst whom are Abramovic, Acconci, Bacigalupo, Clémenti, Cottafavi, Deutsch, Gianikian-Ricci Lucchi, Godina, Griffith, Grifi, Kounellis, Reitz, Tambellini and Viola.

8	The current partner universities are: Université Paris 3 Sorbonne Nouvelle, Birkbeck College University of London, Université de Liège, Ruhr Universität Bochum, Université de Paris Ouest Nanterre La Defense, Università Cattolica del Sacro Cuore-Milano, Goethe-Universität Frankfurt am Main, Universitat Pompeu Fabra Barcelona, Universiteit van Amsterdam, Université de Lille 3, Université de Montréal and Università di Roma 3.

9	In this area, great aid is given by the Archivio Cinema del Friuli Venezia Giulia: built and managed by the Cineteca del Friuli and inaugurated in 2008, it enables the students to spend internships in state-of-the-art archival storage vaults.

10	The European Directive 2012/28/EU was recognized in Italy in 2014 (with the legislative decree, n. 163, November, 10). The specific acknowledging of the EU Directive regarding the Italian cinematographic orphan works appear paradoxically as a "clue" of a hidden and wider anomaly represented by the whole national film heritage, not included in the national regulations of the traditional cultural heritage. Despite the pioneering Venetian international conference of 1981 [Il film come bene culturale (Film as cultural good)], the film heritage inhabits an ambiguous polarity between cultural good and cultural product, between public cultural heritage and private economic asset. Nevertheless, as a further turn of the screw in its own historical and ontological dialectic, the current economic politics regarding the cultural heritage and creative industries place the film heritage in a sort of avant-garde position.

11	In this connection, an additional professional opportunity given by the archival training program is in contemporary documentary, experimental and independent cinema. In recent years, students or former students have promoted or collaborated in professional production projects (involving well-known artists such as Tonino De Bernardi, Gustav Deutsch, Boris Lehman, Alina Marazzi and Pietro Marcello, among others), with the post-production phase (editing, colour, theatrical and broadcast copies) performed by the CREA laboratory and in some cases (for the digitization of materials) La Camera Ottica laboratory.

12	The reference is to the strictly theoretical-methodological aspects, while the technical ones remain of constant interest and discussion (see for example *The Reel Thing* and more generally the widespread essays on restoration case studies). On the other hand, in recent years a certain recovery of interest has been emphasized in discussions of the status of restored digital editions, ethics and documentation by FIAF, as witnessed in some recent essay published on the *Journal of Film Preservation* and those lectures offered at festivals such as *Il Cinema Ritrovato* or *Toute la mémoire du monde*.

13	The concept of "curatorship" appears in the specific cultural debate during the 2000s, firstly as a reaction to the spectres of the digital access and as a discursive strategy addressed to take back a historical position of exclusivity towards the management and circulation of film heritage threatened by the digital turn: see Horwath 2005 and Mazzanti 2005; Cherchi Usai, Francis, Horwath and Loebenstein 2008. As a further result of the debate on curatorship and about the subjects appointed to exercise an hermeneutical and research function see also Quaresima 2010. More recently (not so far from the Udine's approach), the convergence between theory and practices of film archiving, new film history and media archaeology come to envision the "film archive as a research laboratory," see Fossati and van den Oever 2016. See also note 3.

14	With reference to the Italian context, we can mention an interesting training experience promoted within the School of Preservation and Restoration of Cultural Heritage, organized by Friuli Venezia Giulia Region. Usually focused on traditional materials the last program has been for the first time opened to the photographic, cinematographic and digital materials. The three main European festivals devoted to film heritage (Le Giornate del Cinema Muto; Il Cinema Ritrovato; Toute la mémoire du monde) host specific training programs, meetings, workshop (respectively, the Collegium - Sacile School for Film Music; the Fiaf Summer School; Le Rencontres et Conférences). Lastly, we should mention workshop, conferences, internship and student chapters organized by international associations as AMIA (Association of Image Archivists) or the European INEDITS.

The Current Landscape of Film Archiving and How Study Programs Can Contribute

Adelheid Heftberger

Introduction

Film archives are not a monolithic block, but are very different institutions which encounter hugely diverse challenges. There are smaller institutions struggling with the most basic archival tasks, like storing their film prints in cold storage or making headway with cataloging their holdings. Others have already managed to implement functioning data management systems, which allow for easier access to their digitized or born-digital material by scholars or other stakeholders. However, film archives on the whole are arguably not as advanced compared to their neighbouring cultural heritage institutions and particularly libraries, when it comes to sharing metadata and developing comprehensive workflows for making their holdings accessible. The reasons for this are manifold. One reason might simply be that libraries as institutions have a longer tradition and therefore more experience. Another reason lies in the native heterogeneity of the collected and archived material types, from film material in various stages in the life cycle of the film work to photos and posters and textual documents in any shape and form.

In my article, I will try to outline the challenges film archives face, influenced by the digital revolution, which was comparatively slow to arrive in most film archives. My viewpoint is mainly a European one with a special focus on Germany, despite the fact that the field, obviously, is an international one. The attempt to take international developments into account would simply be far too ambitious. Furthermore, safeguarding and making national film heritage available has traditionally been considered a task for the respective national institutions or, at most, a European one. Film archives on the other hand have been collecting far more than their own countries' film productions. Some have adapted a wider definition than others, for example by regarding every film shown in national cinemas - whether produced in their country or not - as national film heritage. As Anna Bohn, head of the audiovisual collection at the Zentral- and Landesbibliothek Berlin, points out, there is a long standing tradition for this practice in Germany, going back to 1934, when the Reichsfilmarchiv and later the Staatliches Filmarchiv of the GDR collected international film heritage (Bolewski 2015, 1). These preliminary thoughts are meant to help understand that film archives and their staff are faced with a situation where national and international collaboration would be a key to carry out their duties. Even though digital material has been arriving in film archives for a while now and holdings are digitized by archives themselves,

I think we are reaching a point where certain technical operations can be performed faster, and alternative information environments are being developed and adapted like Wikidata or the Semantic Web.[1] There are big and exciting challenges for film archives ahead, where we need most of all people with a more comprehensive vision. In the 1990s, a for its time ambitious—if not, in retrospect, over-ambitious—project was set up with the intention of creating a database containing detailed filmographic information on European films, which could be used by film archives as authority records: the Joint European Filmography (Nowell-Smith 1996). Times are different now and not only the information infrastructure is more advanced but also people are more open to share information.

Furthermore, I think we can safely say that the established structures of how knowledge is created, distributed, accessed, transformed and judged are crumbling. It could be argued that the role of curatorship as a qualified, carefully performed and responsible duty is challenged in similar ways.

Finally, I will outline possible intersections for scholarly collaboration, where for example computer science (or digital humanities) can support film archives.

Taking all these preliminary remarks into account, my thesis is that the last years have been particularly exciting for everyone who is dealing with information science as well as knowledge production, transfer and distribution. Therefore, this paper will be mainly written from the perspective of metadata management in film archives, how the cultural heritage sector can benefit from recent developments and interdisciplinary collaborations, and lastly how academic study programs[2] as well as inter-archival training courses[3] can help to tackle the challenges and opportunities. The challenges nowadays do not differ so much from those of pre-digital times, but I would argue that the current infrastructures provide us with possibilities to go a step further and think bigger.

Current Film Archivists

Jobs in cultural heritage institutions have become multifaceted and complex. Change is visible in changing job titles, like a recent restructuring in the British Film Institute (BFI), where previously titled catalogers were renamed information specialists and a head of data is responsible for multifaceted (data) projects, like bfi player[4], bfi filmography[5], britain on film[6]. One reason for this is that an increasing number of archives face having to maintain a parallel structure for working with their objects. Not only must the older generation of film archivists adapt to the new digital landscape, but the younger generation of "digital natives" must also retain a working knowledge of analogue film and the practices surrounding its production, reproduction and distribution. While archivists (as a profession) should last forever, archivists (as people) by virtue of the laws of physics cannot. And while knowledge can in theory be passed down, experience cannot. The archives must take measures to counteract this; otherwise, the gap between the digital present and the analogue past will only be widened with each passing generation. To complicate matters further, there are not only films on film stock and digital files in archival holdings, but also analogue video formats of all kinds. There are huge photo and document collections, 3D objects (like costumes and old projectors), gray literature, personal estates, press kits etc. A film production encompasses everything from its conception to the final release version (or several versions), many material types and many authors. This may seem like a banal statement, but one notices quickly that archivists, film scholars, policymakers still tend to think in material categories rather than information. In other words, we rather continue a tradition of pointing to the differences rather than common ground.

Few could anticipate the rapid pace and depth of the changes to film production, exhibition and preservation that were brought on by the onset of digital technology. Archives in particular have struggled to deal with the change in their primary mission of collecting, preserving and making available audiovisual cultural heritage. As analogue film increasingly comes under threat of becoming a thing of the past, the expanding efforts of archives and museums to convey the importance of the materiality of the film medium - by explaining to the public through its preservation, presentation and education activities how film works, how it is/was produced, restored and shown - could be considered a current form of media archaeology. According to Lev Manovich, professor of computer sciences and media theorist, this change in paradigm fundamentally alters our understanding of media (2013, 65). As Manovich writes in this regard:

From Gotthold Ephraim Lessing's *Laocoon; or, On the Limits of Painting and Poetry* (1766) to Nelson Goodman's *Languages of Art* (1968), the modern discourse about media depends on the assumption that different mediums have distinct properties and in fact should be understood in opposition to each other. Putting all mediums within a single computer environment does not necessarily erase all differences in what various mediums can represent and how they are perceived—but it does bring them closer to each other in a number of ways.

The tacit conviction that analogue reproduction (copying film on film) is somehow more authentic than digitization, and thus that an analogue copy which is still noticeably inferior to the source material (e.g. an original negative or first generation print) is somehow better than a digital reproduction made from the same source, is still very much alive. However, it is important to note that these beliefs originate from reasoned and comprehensible considerations, and that they bear an additional cultural-political significance. Film cultural heritage is, as it has always been, threatened to disappear because there are not enough resources to preserve it. What makes things worse for film archives is the fact that now the scarce resources have to be used to keep two systems running—facilities for cold storage or even an analogue lab alongside a likewise costly digital infrastructure. This may lead to difficult decisions, as the recent case of the German Bundesarchiv has shown, where the wet lab is in danger of being closed in order to afford scanners to digitize films (Koppe 2016). The discussion is influenced by the widespread conviction that digital technology may leave the public and the decision makers with the impression that once a film print is digitized it is saved. This stance, on the other hand, has consequences for researchers or general consumers of filmed entertainment: sometimes they are able to watch a film on 35mm in a movie theater, at other times there may be only a DVD or even just a YouTube video of questionable quality available. And still at other times, and not infrequently at that, the requested film is not available in any format. The question of which audiovisual documents are and were available for scholarly research, and in what form(s) and to what ends they can be viewed, analyzed and maybe even reused, directly shapes film history and film historiography (Heftberger 2016, Olesen 2017, Noordegraf 2010, Verhoeven 2012). The fundamental issue of access to sources leads to the formation of a canon on the one hand and blank spots on the other, where potentially important and interesting aspects of film history go unnoticed simply because we are unaware that they exist.

When faced with the contradicting task of preserving documents for posterity and at the same time ensuring they remain accessible to the public, film archives inevitably have to make decisions, and for many preservation will take precedence over access. However, the stereotypical view of the archivist as a kind of unfriendly gatekeeper can also be the result of accident rather than design. Indeed, with few exceptions, most archives are chronically underfunded and understaffed, hindering their ability to process user requests in an expedient manner. Many lack in addition the necessary technical infrastructure to provide access to the documents they hold in digital form. The lack of available primary sources would also seem to explain why more comprehensive studies in the digital humanities, such as the work carried out by the psychologist James Cutting and his team (2011, 2013), tend to focus on Hollywood productions, as these are more readily available to researchers than say the Hungarian cinema of the 1960s.

Since most film archives already lack the necessary resources and infrastructures to preserve their collections adequately, then the added task of trying to meet the increasing demands of the public for access to these collections becomes nigh-on impossible. By 2012, only 1.5% of the collections held by European film archives had been digitized, according to an estimate given by the Association des Cinémathèques Européennes (L'Association des Cinémathèques Européennes, ACE), 17). Each unlucky encounter or troubled relationship between an archive and its users has far reaching, global implications for how we access, link, quantify, visualize and study our collective cultural (film) heritage.

Where metadata and the building of information infrastructures are concerned, it remains questionable whether the traditional segregation of objects within film archives into the respective institutional or material types (audiovisual, photographic, etc.) is still constructive other than from a conservatorial point of view. Furthermore, we can ask ourselves if nowadays clear labels and distinctions as "scholar," "librarian," "archivist" or even "professional" versus "amateur" are not more of a hindrance than a help. As Eric Hoyt (2016, 358) writes insightfully in support of such an argument:

For those of us trained primarily as researchers, writers, and teachers, we should listen especially carefully to our librarian and archivist friends when they bring up questions of usability, findability, and preservation. No one wants to pour her energy into a project that researchers and the public never discover or want to use — or into one in which the data corrupts or disappears from the web.

Some films archives, for example the BFI or EYE Filmmuseum Netherlands, have recently decided to take a bold step and make their catalog entries openly available online[7]. Now everyone with internet access can look up which prints of a certain film are held in the archive. Their boldness consists mainly in the fact that they lay their data open, while knowing that it might be incorrect or incomplete. A similar yet even more advanced example can be found in other fields like the German National Library providing all their data via APIs for download and Europeana strengthening its efforts to become a data hub for researchers and the public. Finally, open knowledge bases like Wikidata are increasingly recognized as potential collaborative partners not only for libraries[8] but also for film archives.[9]

Not only do archives preserve and provide access to their collections, they also actively engage with the individual objects housed within these collections on a content-based level. Therefore, many archives have historians, art historians or humanities scholars on staff. Although archivists still tend to be placed in a separate camp to scholars, there are nowadays in many cases very little that separates them, especially in light of recent generations of archivists who have gone through third-level education in one or other of an ever-increasing number of academic institutions that offer relevant graduate or postgraduate programs. Schnapp and Presner (2009) in their "Digital Humanities Manifesto 2.0" rightly point out that a great deal of research is indeed carried out within libraries and archives, yet the traditional hierarchies still seem deeply rooted in public consciousness. Still, the once firm boundaries between librarians, archivists and museum curators on the one hand and academics on the other are not as clear anymore, as has already been pointed out elsewhere (Hanley, Heftberger 2012; 2014). To me, the description of the Media Ecology Project, a digital resource at Dartmouth College, sounds like the vision we need (Williams 2016, 336):

> The scope of MEP's work toward this goal includes exploring new methods of critical human and computational analysis of media, developing networks between institutions that expose existing archival collections to new audiences, and building tools that facilitate automated sharing of rich cultural data and metadata among software platforms.

As Williams explains, working collaboratively in the project was based on collegiality and connectedness, guided by "openness and mutual respect as well as a balanced critical eye," while the people involved would be "at some level working outside their comfort zones: across disciplines, across expertise, across vocabularies" (ibid., 343). This means that our traditional perceptions of collecting and curation will change. Inviting the public to participate in this process would be a step into the right direction and not just because it shows active democracy and respect for the populace who in large part finance these institutions. Strategically, it also makes culture more relevant in the eyes of political leaders.

The goal of having to make one's own institution known and continuously visible for funding bodies and the public, presents a challenge for film archives in terms of marketing and public relations. They are thus faced with a dilemma: While they are supposed to become a recognizable brand which works to a certain extent in the real world, the issue becomes more difficult when it comes to their online presence. Following a 2008 workshop, the Cultural Heritage Information Professionals (CHIPs) published a report including a somewhat polemic statement which in my eyes still bears a certain degree of truth: (1) On the Internet, nobody knows you're a library, archive, or museum. (2) Engage your audiences, or lose them. (3) Information wants to be free. (4) Embrace our commonalities, and our diversities. It is true that users are not ready to familiarize themselves with the mission statement or history of the providing archive when it comes to finding relevant information quickly. Also, we should be careful to make demands on an audience which has very diverse and changing needs. Film archives could interpret the above statement in all its boldness as something positive and encouraging, highlighting the obvious assets and virtues of cultural heritage institutions, which is quality on every level, e.g. cataloging, digitization and curation. On the other hand, it can be read as a call

to action to unite forces and platforms when it comes to providing material, e.g. film journals, which are scattered among many different institutions and websites. Clever branding as an archive could therefore also be to develop ways for making it easier for researchers and the public to access their holdings, even if it means that they don't always have to go to their own website first. Aggregating platforms on the other hand could leave more space for (maybe smaller) archives to be represented more visibly.

Both creating meaningful online collections and allowing for crowd and collective curation belong to the same broader concept. It is interesting to find somewhat similar ideas from software programmers, as Hoyt claims based on his experiences with data mining digitized collections of fan magazines (2016, 361): "After spending five years working in this space, I have come to believe that the best reason to develop software is not to advance our own arguments. Instead, we build software to serve others, allowing them to arrive at their own insights, surprises, and arguments."

Film archives might also be interested in learning from libraries how better interact with their audience, for example through user studies, or building networks for data exchange and interoperability. Setting up projects which facilitate collaboration between and across domains is as challenging as necessary if cultural heritage institutions are truly dedicated to making culture more widely available, improving our knowledge about our cultural heritage and ultimately contributing to better research and scholarship.

One of the obstacles to more intensive collaboration lies in the differently structured individual training programs (Novia 2012, 5). While librarians usually have a MA in Library and Information Sciences, archives and museums on the other hand still hire people from diverse backgrounds. Some come from the humanities (like history or literature), while others do not have a university degree. Film archives have traditionally found room for "unusual careers." For example, it was not uncommon for a film critic or festival director to become head of a film archive or museum, which usually brought a strong emotional attachment to film as well as profound knowledge of film history and culture (Magliozzi 2003).

The separate educational pathways are still firmly in place, with only a few exceptions, like the "Cultural Heritage Information Management" program at the Catholic University of America (CHIM), which is explicitly aimed at teaching the convergence of different practices of libraries, archives and museums.[10] Jennifer Trant (2009, 383) argues along the same line, and claims that the students should be more deeply familiarized with related disciplines, rather than taking courses with a more general approach, as seems to be the common standard.

> Cooperation across institution types becomes easier when program alumnae can be found in all types of cultural heritage institutions. Creative thinking, problem-solving, teamwork and continuing education can be emphasized in all aspects of curriculum, and drawn out, consciously, in less formal parts of the curriculum such as a practicum or internship.

This vision seems to me as convincing as challenging: Not only do cultural heritage institutions need to communicate their needs in terms of education and training clearer, but we also need to find people who can teach cross-disciplinary to a new generation of audiovisual archivists and information professionals in general. Alternatively, new jobs could be created which operate on the intersections of academia and cultural heritage institutions, e.g. a film historian or information specialist who works with archival holdings on a scholarly and curatorial level. Introducing new types of professors (e.g. something like "transfer professor") might work out beneficial for academia and the film archives, or even the industry like film production or film laboratories.[11]

Educating Future Film Archivists

Many young people still want to work in archives and new archival training programs continue to flourish. Their graduates, many with a background in film and media studies or another degree in the humanities, might think that inspecting, cleaning, shelving, identifying and restoring analogue film material will be their main duties. These expectations are fuelled by the iconography and language of film archives: dark rooms with flickering lamps; rows and rows of shelves stacked with film cans; piles of dusty boxes

neatly stacked or lying in a heap in corners; the lonely archivist serenely watching a film on a viewing table in the middle of a low-lit room. In short: the film archive as a place for contemplative investigation. Of course, preserving analogue film material is an important task that has rightly been highlighted in the latest discussions concerning our audiovisual cultural heritage. It is only a logical consequence that special study programs were set up in order to educate those interested in film archiving and film presentation for future jobs. However, the aforementioned tasks now constitute a mere fraction of the daily operations of a film archive.

Noticeable efforts in Germany manifest themselves in a number of study programs for film archiving and curating.[12] Recently there seems to be growing awareness in cultural politics that preserving, archiving and presenting audiovisual material requires specialized education. These education programs therefore aim at filling this gap and creating a new generation of specialists. But how do digital production and preservation influence the curricula, and what kinds of management duties should future film archivists expect?

The digital revolution has made a whole new range of skill sets increasingly important, which the modern film archivist must be equipped with in order to carry out his or her job satisfactorily. So far archival training courses within the archive community but also many study programs in the US have focused on preservation (Lukow 2000), while academic programs seem to lay an emphasis on curation. However, when it comes to providing information or access, the needed skill sets have more in common with other disciplines (e.g. Information Technology) than they do with "traditional" film archiving such as the ability to differentiate between different types of film stock or the ability to date an unidentified film print by deciphering the codes printed by the film stock manufacturer in the perforated area. Moreover, these two specialist knowledge types (analogue on the one hand, digital on the other) are not interchangeable. On the contrary, as Martin Koerber (2013, 44), curator of the film archive at the Deutsche Kinemathek in Berlin, explains:

> Even when all access to and handling of audiovisual heritage material is digital, there will still be a need for specialists who know how to properly treat the analogue originals. […] There will be a need for people who can, for example, tell the difference between a Technicolor print and an Agfacolor print just by looking at them, or who can easily distinguish an Eastmancolor print from a Kodachrome reversal original.

Although Koerber's statement is certainly true, it also confirms common assumptions about how film archivists spend their time: identifying films by looking at edge markings, collecting information about rare film formats, restoring rare colour material in the best way possible, and generally taking time to research all these issues thoroughly and discuss them with their fellow archivists. Also, the term "archive" itself is loaded with meaning, influenced by famous texts like *Archive Fever: A Freudian Impression* by Jacques Derrida. The archivist, filmmaker and pioneer of the Internet Archive[13] Rick Prelinger (2015), describes the academic view on to the archive as one which is not very helpful in this discourse:

> Theorists who do not work in archives project all sorts of ideas onto what they call "the archive." For them archives can be blank screens, even playthings. And scholars and producers regard us as repositories for what they *wish* we collected made available in the ways they *want* to use it. We spend a lot of time resisting the identities projected onto us. But only a few scholars speak with archivists directly. Few have spent even a day rewinding film, or shifting cans from one vault to another, or digitizing videotape.

Consequently, this image of the film archivist as the expert of unique and "old" film material bears the unproductive notion of pure artisanship, closer to the art restorer or art historian who is able to identify art works by merely looking at which colour schemes were used. Prelinger's statement strikes a point because it unveils how the academic view on film archivists is sometimes influenced by their own research interests, foregrounding identification and analyses of film material. These activities are certainly very important tasks which can be very time consuming and request a vast film historical knowledge and years of experience. However, the staff of an average film archive is probably a lot more diverse than film scholars and the public expect. Just to give one example: a profound understanding of conservation science is arguably

as essential for film archivists as knowing national (and international) film history. While restoration projects have gained public awareness, they risk misleading people into believing that film archivists dedicate all their time to comparing numerous film elements from different archives around the globe. However, it would be equally misleading to assume that the staff in an average film archive just rewind LTO tapes, put hard drives on shelves or identify obsolete codecs rather than film cans, just to give a somewhat polemic example. Rather, I would like to move away from the notion that we have to define the tasks either as analogue (past) or digital (future), which limits the discussion to technological issues. Koerber (2013, 49) quotes an alumni from the study program at University of California, Los Angeles (UCLA), who states quite clearly the additional skill sets needed for real job security: "a) IT/IA knowledge, some level of prowess in database management, b) experience with fundraising, project management and knowledge of non-profits, c) extreme tenacity and entrepreneurial vision." To sum up: We need to look at film archivists as information specialists, data managers, cultural heritage managers or, on a more general level, interlocutors in a much bigger debate involving the different GLAM institutions and knowledge producers.

Collaborations between archivists and scholars

As the points I have outlined thus far suggest, film archivists still work in something of an isolated manner when it comes to collaborations with their peers in neighbouring cultural heritage institutions. Similarly, the comparatively young discipline of film and media studies still seems to struggle to be taken seriously within the humanities. This presents a twofold problem: while collaboration within their own communities is already difficult for film scholars, their potential partners also only rarely look across disciplinary borders. However, as I highlighted in my introduction, there would appear to be ample ground for archivists and digital humanists, or academia in general, to enter into a potentially meaningful form of cooperation.

In the following, I will map out the potential of collaborative projects for metadata enrichment on one hand and the presentation of collection items on the other with reference to specific examples. Let us regard film archives as big data collections, which are filled with not only audiovisual but also textual data to be mined, explored and visualized. Not only have films been published and presented via a range of means since the emergence of the medium, but they have more often than not been accompanied by a variety of different film-related materials. These usually consist of a heterogeneous collection of media types and documents including (but by no means limited to) handwritten charts, scripts, photos, posters or, more recently, electronic press kits (EPK). Other examples of filmic paratexts would include the sometimes visually fascinating cinema listings in historical newspapers or the equally fascinating advertisements for cinematographic equipment in trade journals, to name just two. These documents contextualize cinema not only for professionals and scholars but also for the general film-going audience. The latest developments in the field of Social Media (with posts, blogs, likes, tweets, etc.) have increased exponentially the amount of potential data and the number of sources which may offer researchers points of departure in future. The aforementioned diversity of data still presents a challenge to film scholars when it comes to diligent and comprehensive online research. The available digitized documents are scattered across a countless number of websites and portals with a similarly wide range of different navigation and search features. But there are also positive examples to be found. The website accompanying the book *The Promise of Cinema* (Kaes 2016) provides among other resources a list of historical film journals[14]. Also of note is the Austrian National Library's online newspaper portal ANNO, which offers an integrated OCR search.[15]

However, there is not one single entry point for scholars nowadays to conduct their research, directing them to useful online sources. It seems a daunting task to have to sift manually through the plethora of relevant websites, made all the more daunting by the language barrier, in order to uncover any kind of information on a film title, director or topic. This point is equally pertinent to both the film historian examining vintage newspaper articles as well as for the scholar of contemporary cinema trying to follow the discussion surrounding a current film release. In both cases it would be helpful to have the possibility to search across different platforms, media formats, data types and time periods. Even though Europeana*, for example,* provides users with a SPARQL entry point and an API, access to this data is not immediately available and searchable for the

average user. In addition, the available documents come in a range of different formats of variable quality. More often than not, the scans are not OCR searchable or the websites themselves lack useful search options. In short, both film scholars and film archivists can benefit significantly from digital tools which are able to aid the enrichment of filmographic data on the one hand and organize this data in a useful and standardized way on the other. There are no limits as to what we can regard as useful forms of metadata enrichment: transcriptions, subtitles, reviews, descriptions of a film's content as well as its formal characteristics (e.g. shot composition and editing structure) etc. My suggestion would be to adopt a two-fold approach: (a) use existing tools to harvest metadata from online databases and develop a unified metadata standard, and (b) develop tools for automatic film analysis to generate new metadata. Such an approach could prove useful in a number of different ways. For example, digital tools and digital humanities can aid the exchange of filmographic and technical metadata between film archives and libraries, perform automatic indexing and abstracting, support the import of data from relevant web sources (DBPedia, IMDb etc.) or explore the potential of Linked Open Data for film archives and cultural heritage institutions.

These tools would aid film archives to enrich their catalogs but also to create better metadata in general and consequently to help archives curate innovative online presentations, thus also facilitating education and (further) research. This leads us to the general hypothesis that the combination of text-based and content-based retrieval methods with effective visualization and presentation techniques is ideally suited to dealing with research questions in film studies, similar to what has been achieved in projects like the aforementioned Media History Digital Library[16], Cinemetrics[17], Timeline of Historical Film Colors[18], Kinomatics[19], VIKUS[20] or the recent Weimar Talkies Project[21].

Joint projects between film archives and libraries or international projects which strive to improve interoperability and establish infrastructures for the exchange and enrichment of metadata are still rare, in no small part due to their complexity. One example worth mentioning here is the collaboration between the German National Library and the Deutsches Filminstitut (DIF) on the project IN2N.[22] Major potential for a sustainable and successful collaboration lies in EU-funded projects, which would be able to provide the necessary financial resources to build interfaces for metadata exchange and mapping. Such interfaces could then be used by the individual participating institutions even after the project is finished, and perhaps even later on, in other collaborative projects. *EFG1914* - a follow-up to the earlier European Film Gateway project (September 2008 to August 2011), and likewise coordinated by the DIF - was set up to facilitate the high-quality digital transfer of analogue film material related to the events surrounding the First World War (1914-1918), and to make it freely available via a web-based platform (in this case the European Film Gateway and Europeana portals). One big advantage of these projects was that it was possible to build the necessary technical infrastructure (e.g. common standards and interfaces for data exchange) which then later could be used for projects afterwards.

From a computer science perspective, the technical processes involved are not very complicated, but the manifold metadata standards and cataloging traditions nonetheless pose a major challenge for such an endeavour. There is still a widespread belief that one's own metadata is better curated than the other person's, specifically when compared to the available web sources such as Wikipedia or IMDb. One has to bear in mind that cataloging in GLAM institutions is essentially about following strict rules and hierarchies. Opening up databases to imports from external sources raises questions about the hegemony over authority files.[23] Who will decide whether a title is right or wrong or if it has to be written in a different way? For cultural heritage institutions, questions such as these are important because otherwise they would end up producing just meaningless database entries. German and Austrian libraries, for example, solve this problem by appointing only one person in the respective national library to have the last word on authority files. On the positive side, this workflow guarantees trustworthy entries. On the negative side, it is extremely time consuming and therefore also slow. Why not let algorithms do the job? Would not software be particularly useful here, both for comparing large amounts of records quickly and cleaning data in the same process? Even if the intellectual input still prevails, many processes could certainly be automated. I would even go one step further to ask: Why not also include other media than text? Suddenly the possibilities for the annotation - as in extended and/or time based content description - of archival documents grows exponentially. I believe that eventually what were once called catalogs in film archives will develop into fully-fledged media

asset management tools that integrate digital representations of cinematographic works or audiovisual documentation of 3-dimensional objects.

An increasing number of intriguing crowd sourcing projects can be found online, which actively invite the users to contribute their knowledge in various ways. Some cultural heritage institutions seem to recognize the benefit in adopting such an innovative approach to aid, for example, in the identification of their archival holdings. Portals such as zooniverse[24] have meanwhile made it fairly easy to set up your own crowd sourcing project. While some institutions prefer to keep their documents on their own website as a branding strategy, to me this seems a shortsighted and potentially dangerous course of action. Dangerous, because many documents will never make it to the online platform due simply to the lack of manpower and the necessary technical infrastructures, among other issues. If automatic analysis could facilitate the transcription and identification processes, this would prove extremely beneficial for the institutions and their users alike.[25]

The search would have to follow the same logic. To initiate such projects, which are essentially digital humanities projects, information specialists from GLAM institutions will have to start working more closely with academics. Unfortunately, the cultural heritage sector has proven slow to adapt to new expectations and demands, but it is clear that manual cataloguing alone can no longer be the solution in the future, despite the intellectual challenge the alternative poses.[26]

Conclusions

I have tried to outline areas where future film archivists may find themselves when they start working in film archives in what can be seen as a transitional phase influenced by the shift from analogue to digital. It is not easy for universities to put together curricula which reflect these changes in every single detail and can foresee further shifts in job profiles even in this comparatively traditional profession. In my view it would be safe to educate students particularly in more technically-oriented subjects like data mining, data wrangling or data exchange, especially because the traditional hierarchies of knowledge are becoming less influential, while concepts like Open Science, Open Access or Open Data are the keywords in a recent debate in Germany which influences universities and cultural heritage institutions alike. The growing interest in these topics shows for example in the context of events like the WikidataCon[27] (held for the first time in 2017 in Berlin) and the yearly conference "Zugang gestalten"[28] which is dedicated to opening up cultural heritage to the public, or the symposia "No Time to Wait!"[29] about open source solutions for audiovisual archives.

Future film archivists might additionally benefit from a focus on management and leadership skills as well as a profound knowledge of rights issues. In the future, universities will hopefully conduct surveys among the alumni of the existing study programs in order to see where they are working (or have worked in the past) and which courses have proven most valuable to them in retrospect.

Since governments seem disinclined to provide more substantial funding for film archives, it becomes all the more important to find innovative ways to raise money. Therefore, working at the crossroads of archiving, academia and cultural politics requires multifaceted skills, including project management, the ability to work with small budgets and find creative solutions to problems, or being able to work in interdisciplinary settings collaboratively. These jobs entail experience in fund raising and public relations and a profound knowledge of cultural politics or rights issues. Depending on the projects, knowledge of metadata, data exchange formats and maybe even programming skills may be required, while familiarity with innovative concepts like Knowledge Design or Open Science will certainly help in developing overarching strategies with other institutions.

The question of where the alumni of specialized programs will ultimately find jobs has already been raised, but it is doubtful whether archives will have the resources necessary to hire them. Future film archivists will probably also have to accept that in many cases they will have to create their own jobs, as managers of projects financed by external grant funding, for example. It may also be realistic and sensible to create more positions at the intersections of film culture, for example positions shared between film archives and universities. If students manage to build a broad network, ranging from technicians to lawyers and open science activists, they will have better chances than if they just meet with their own peers.

Therefore, I see the graduates of these programs as managers in the best sense: people with a love of film and an understanding of film material in every shape and form, but with the ability to lobby for the safeguarding and promotion of audiovisual heritage, and to develop collaborative strategies in order to better achieve this goal.

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Endnotes

1   For example the Cataloging Commission of the International Federation of Film Archives (FIAF) has put Linked Open Data on their agenda in order to look into potentially useful applications for film archives. Furthermore a workshop including a panel on Linked Open Data, organized by the Association des Cinémathèques Européennes (ACE) and FIAF at the Brandenburg Center for Media Studies (ZeM) in Potsdam in March 2017, has shown overwhelming interest from audiovisual archives and libraries alike.

2   The FIAF's website for example provides an overview over international academic study programs, which unfortunately is not quite up to date but still a useul resource: http://www.fiafnet.org/pages/Training/Other-Film-Preservation-Courses.html. The Library of Congress as well makes collected information (with a focus on courses in the US) available: https://www.loc.gov/programs/national-film-preservation-board/resources/film-schools-and-careers/

3   The FIAF has also collected their own activities on their website (http://www.fiafnet.org/) under the section "Training."

4   See https://player.bfi.org.uk/

5   See http://www.bfi.org.uk/archive-collections/bfi-filmography

6   See http://www.bfi.org.uk/britain-on-film

7   See for the bfi: http://collections-search.bfi.org.uk/web, and the EYE Film Institute Netherlands: https://ww.eyefilm.nl/en.

8	See for example a project by Georg Schelbert from the library of the Humboldt University in Berlin: https://wikis.hu-berlin.de/mediathek/...Warum_nicht_gleich_Wikidata%3F.

9	These observations stem mainly from personal conversations and observing the ongoing discussion among colleagues of international archives. In my view it won't be long before projects will be set up for data import from film archives as well.

10	For more information see: http://lis.cua.edu/MSinLS/coursesStudy/CHIM.cfm

11	One example would be the position of Film Museum Potsdam' Head Ursula von Keitz, which includes a professorship at the Film University KONRAD WOLF Babelsberg as well.

12	See contribution in this issue.

13	For more information see: https://archive.org

14	See http://www.thepromiseofcinema.com/index.php/digitized-historical-journals/

15	See http://anno.onb.ac.at/

16	See http://mediahistoryproject.org/

17	See http://www.cinemetrics.lv/

18	See http://zauberklang.ch/filmcolors/

19	See https://www.debverhoeven.com/projects/kinomatics/

20	See https://uclab.fh-potsdam.de/projects/vikus/

21	See http://weimartalkies.com/

22	See http://in2n.de/

23	For example the German National Library for GND (Integrated Authority File). For more information see here: http://www.dnb.de/EN/Standardisierung/GND/gnd_node.html.

24	The platform zooniverse (https://www.zooniverse.org/) might serve as an inspiration of how to set up crowd-sourcing projects. Specifically for annotation, see https://anno.tate.org.uk/#/.

25	I am aware of ambitious and innovative projects like Transcribus (https://transkribus.eu/Transkribus/), but what I have in mind is more a kind of online tool which can be integrated within existing websites.

26	Jennifer Schaffner (2009) has conducted user studies that call for new ways of thinking about search by users.

27	See here https://www.wikidata.org/wiki/Wikidata:WikidataCon_2017. For my own work on using Wikidata to foster scholarly research see here: http://www.apparatusjournal.net/index.php/apparatus/announcement/view/24.

28	See for the latest edition in Frankfurt here: http://www.zugang-gestalten.de/programm-2017/

29	See for the latest edition in Vienna here: https://mediaarea.net/MediaConch/notimetowait2.html
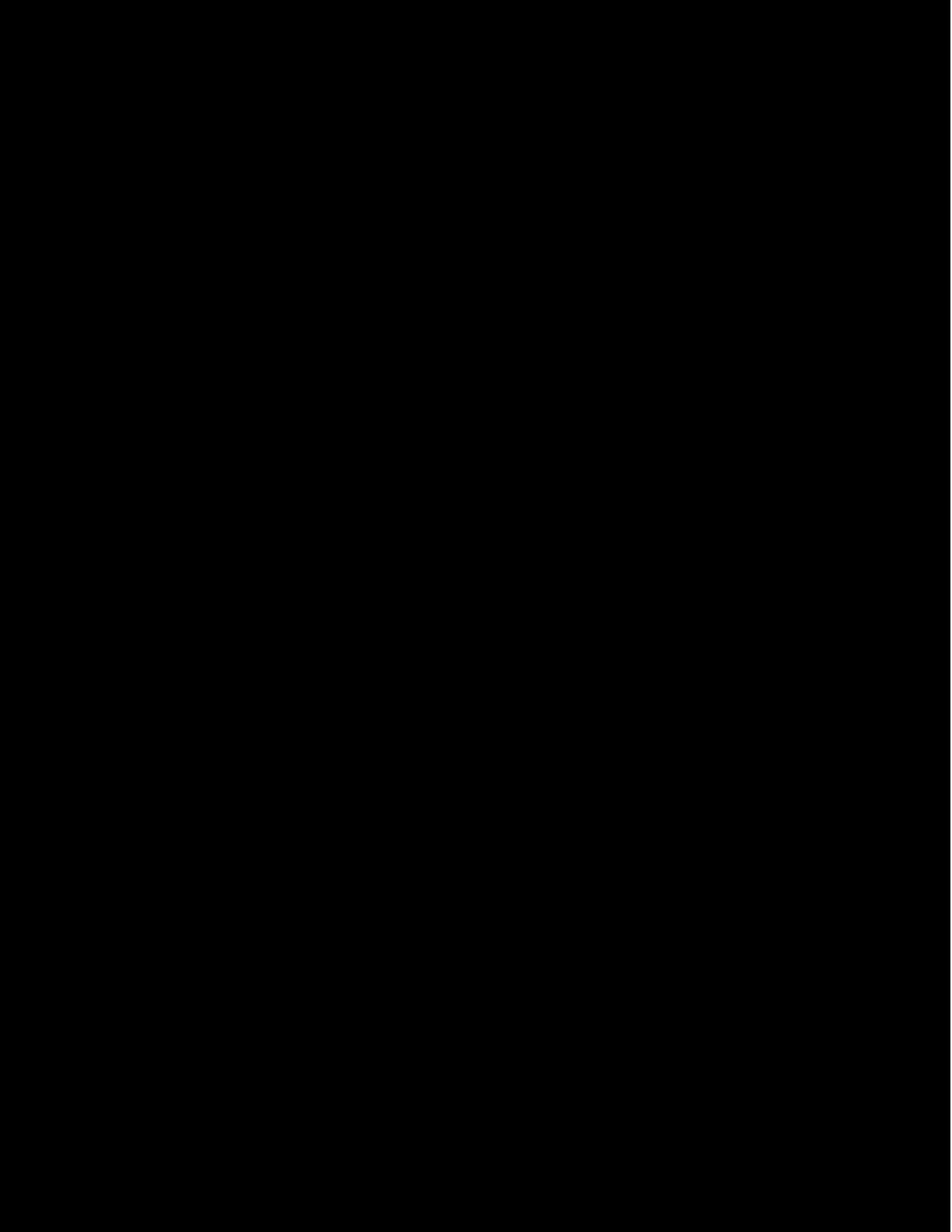
FORUM SECTION
Programs, Philosophies

A Look Back

The Professional Master's Program in Preservation and Presentation of the Moving Image and How It Came to Amsterdam

Thomas Elsaesser

Editors' Note

Thomas Elsaesser, Professor Emeritus in Media and Culture at the University of Amsterdam (UvA), founded the university's professional MA Preservation and Presentation of the Moving Image (P&P) in 2003. For its fifth anniversary in November 2008, Dr Julia Noordegraaf, then director of the program, invited Professor Elsaesser to welcome new students enrolled in the MA. In his speech "A Look Back: The Professional Master's Program in 'Preservation and Presentation of the Moving Image' and How It Came to Amsterdam," Professor Elsaesser offered some reflections on the institutional, political, and personal implications of founding the P&P program, which are still relevant today. Professor Elsaesser kindly agreed to let us publish the manuscript with minor alterations. We have added bibliographical information for cited sources and updated names of mentioned institutions. Moreover, we used Professor Elsaesser's notes to briefly outline the speech's two main thematic threads.

In the first part of the manuscript, Professor Elsaesser provides a detailed account of the intricate institutional and political implications of creating a program for moving image preservation. On the one hand, he recalls how the founding of the P&P program developed out of the institutionalisation of early cinema studies and the increased exchange between film scholars and archives in the 1970s and 1980s. On the other hand, he details how the numerous efforts to build on the European Union's MEDIA programs have impacted the structure of P&P and its relation to European university politics and local funding schemes. In the second part, Professor Elsaesser highlights his person-al motivations behind his efforts in teaching the archival life of film. He explains how screenings from the Jean Desmet Collection at Le Giornate del Cinema Muto in the 1980s and Dutch found footage works in the early 1990s provided the productive theoretical coordinates for a curriculum that would combine theoretical as well as practical training.

The Amsterdam Professional Master's Program in 'Preservation and Presentation of the Moving Image' – A Retrospective

My thanks for inviting me to speak here today: I take this opportunity to welcome the students of P&P to Amsterdam but also our new colleague, Alexandra Schneider . Having been asked to say something about how the idea and then the realization of the "MA Preservation and Presentation of the Moving Image" came about, I think I can point to at least five different reasons or histories: three are institutional histories and two are more personal ones. But as each year's intake of new P&P students—and their subsequent careers—amply proves, there are many more paths that lead to P&P and especially, from P&P into the world of archiving, programming, conservation and cultural heritage, few of which I could have imagined or anticipated in those early days.

The first path goes back to the crisis affecting film archives in the 1970s and 1980s, when nitrate came to the end of its natural life, and for the first time, film archives actively sought the help from film his-

torians and film scholars, symbolized by the FIAF/ Brighton meeting in 1978, which in my case, led to teaching courses at the University of East Anglia on early cinema and pre-cinema from the 1980s onwards, as well as media archaeology in Amsterdam in the 1990s and beyond, while also editing the collection *Early Cinema: Space, Frame, Narrative* for the British Film Institute in 1990. I won't detail this history, because you will have learnt about it in your courses: it is one of the foundations of our field, and has been most recently recapitulated in Wanda Strauven's *The Cinema of Attractions Reloaded* (2006).

But it might just be worth adding to this my first experience in archiving: the idea of advanced study in the field of Film Preservation, joined to an academic Master's degree in Film Studies goes back to 1985, when, as director of an MA Program in Film Studies at the University of East Anglia, I became involved in setting up an MA degree in Film and Television Archiving, proposed and coordinated by David Cleveland, the director of a small, but significant regional archive, the East Anglia Film Archive.

This MA in Film Archiving started with students, who, in addition to their practical courses, took a combination of modularised units from the regular Film Studies MA program. One was the already mentioned course on 'Early Cinema,' taught by Charles Barr and myself. The archive courses were practical, rather than academic, using the East Anglia Film Archive resources, which at the time consisted mainly of the holdings and the equipment that David Cleveland had acquired and preserved over the previous decade, as a researcher at Anglia Television, as a public lecturer and, I believe, also as a private collector.

The second institutional history behind P&P was the setting up of Archimedia in the mid-1990s, a more formalized cooperation, supported by the MEDIA program of the European Union, between film archives and university film departments. Archimedia, thus, became the European network of archives and universities, initiated by Gabrielle Claes in Bruxelles and Philippe Dubois at Paris III, for the promotion and training of young professionals in the archiving and preservation sector. The work within Archimedia, the committee meetings and, even more so, the teaching and workshop sessions organised for the *formation initiale* and the *formation professionelle* was the most

decisive reason why in 2000, after MEDIA ceased funding this very inspiring co-operation between the archives and the universities, I decided to go ahead at the University of Amsterdam with implementing at least part of the program we had been discussing in our various meetings in Brussels, Liege, Bologna, Amsterdam, Paris, Madrid and Lisbon.

In fact, it was at one of the last meetings of the original group in Lisbon that together with my Italian colleague Leonardo Quaresima from Bologna and Udine we were asked to make specific proposals for a European MA in Archiving, to compete with—or to complement—the programs that were at the same time being set up in the US—at the University of Californa, Los Angeles, headed by Steve Ricci; at New York University, directed by Howard Besser and now by Dan Streible; at the G. Eastman House, Rochester where Paolo Cherchi Usai had begun a certificate program, continued by Chris Horak, now called The L. Jeffrey Selznick School of Film Preservation at George Eastman House.

Some of these contacts have remained, such as with NYU (thanks to Dan Streible, and the highly acclaimed annual 'Orphans of Cinema' conferences-cum-festivals), but most actively with Leonardo Quaresima, who was successful in obtaining funds for a European spring school, the 'Gradisca Spring School' (for the first time held in March 2003, the same year as P&P started, and both are still going strong). The 'Gradisca Spring School' and P&P are thus cousins, if not sisters—since both devote themselves to issues of film history from an archival and film restoration perspective. But we also started talks with NYU, with whose Tisch School of the Arts the University of Amsterdam cinema department already has extensive contacts (student and faculty exchanges, joint graduate student conferences, joint supervision of PhDs, joint research and publication projects).

Subsequently, I used the Amsterdam–NYU connection to forge ahead with the idea of a joint MA, now international, rather than European, financially supported by the then Vice-Chancellor, Sijbold Noorda, who invited me to pursue a "centres of excellence" initiative between UvA, NYU, Free University Berlin, and University College London. After auspicious beginnings, the bureaucratic hurdles proved too high and it, too, did not lead to a viable MA program, however hard we tried, but it

did lead to three consecutive graduate student conferences with participants from Amsterdam, New York and London and a publication—*Cinephilia: Movies, Love and Memory* (2005).

This is perhaps where a more personal rather than institutional narrative should be mentioned—namely what made me leave Britain and the University of East Anglia, and brought me to Amsterdam. One of the most successful and visible results of the Brighton-FIAF alliance was the film festival 'Giornate del cinema muto' in Pordenone, founded in 1982, and also still going. For many years I was a regular visitor, attending from the second meeting onwards. There I came into contact with Karel Dibbets, from UvA, and that is where for first time I heard about the Nederlands Filmmuseum and its extraordinary Desmet collection of Early Cinema material. When the University approached me in 1990, to ask whether I wanted to help them start a Film Department in Amsterdam, it was the Desmet collection and its yet to be fully explored riches which had a lot to do with eventually swaying my decision.

Many of the courses we set up in the regular Film Studies program made use of the facilities of the Nederlands Filmmuseum, in the first instance as a screening venue for 35mm films, and as an extensive book-library with valuable periodical holdings (the University was only gradually acquiring film books as the department expanded). But the Filmmuseum also proved to be an accessible film library for the study of the cinema because of its early adoption of a then not uncontroversial policy: to make video copies from the collection available for viewing to students and scholars. The 1990s were the years when the Nederlands Filmmuseum was scoring some notable successes internationally, first at the 'Giornate del cinema muto,' and then at other early or silent cinema festivals all over the world.

The increased use that international scholars were making of the archive also helped the direction to secure substantial grants from the Dutch Ministry of Culture, which in turn allowed the Filmmuseum to work closely with a specialized laboratory, Haghefilm, and to organize international workshops on color, sound, non-fiction material, colonial film, etc.

These contacts with the Filmmuseum and the experience with the students and teachers on the International MA (which was started in 1992, one year after we opened the Department) made me realize that Amsterdam could boast of a unique combination of cultural institutions in the field of cinema, and not simply in the area of archiving. For Amsterdam, besides being a major European tourist destination, also has an extensive festival and museum culture. It is home to the 'International Documentary Festival' (IDFA), 'MonteVideo - Time Based Art' (since 2012 LIMA), the 'World Wide Video Festival,' 'KLIK! Animation Festival,' 'Cinekid,' and the 'Africa in the Picture' festival. In addition, Amsterdam University has in its vicinity the 'International Rotterdam Film Festival,' and last but not least, there is the National Television Archive Beeld & Geluid in Hilversum, now one of P&P's most important and loyal partners.

In short, throughout the 1990s, the idea grew to offer (fee-paying) foreign students of the International MA a more practical option alongside the academic one, maximizing the location advantage of Amsterdam, at the same time as enhancing the attractiveness of the Master's Degree generally, since it had not gone unnoticed that there was indeed a gap in the market for an institution able to providing educational opportunities at the advanced level to students in the field of cinema who did not wish to continue with a PhD or a university career.

This brings me to the last of my institutional contexts for the MA P&P, the so-called Bologna Declaration, obliging universities within the European Union to coordinate and synchronize their respective higher education degree courses, their course credits, their diplomas and certificates, and to adopt a compatible structure of Bachelor's and Master's degrees, in view of facilitating cross-border student mobility and supporting the recognition and convertibility of academic grades within the EU.

The Bologna Declaration was implemented in the Netherlands with astonishing enthusiasm and at great speed. In the process, it created unexpected opportunities for innovation. For instance, while the Dutch government was reluctant to make "new money" available to the universities for setting up traditional Master's courses, the Ministry of Education did allocate special seed-funds for Master's courses which promised to make academic skills relevant to professional practice, or which offered students and professionals the option of continued education, i.e. returning to universities for shorter periods (up to one year), in order to update their skills, acquire new ones, or acquaint themselves with

theoretical developments in their respective fields. This directive allowed us in the Film and Television Studies department, renamed Department of Media and Culture (which now includes, besides film, television, and digital media also journalism, archive, and information studies) to develop three such Professional MA courses (the other two are in cultural journalism, and in television research).

I finally saw my chance to implement my long-held dream of a new MA program, with a professional and training element: it as a unique opportunity to bring P&P into being, and I was staunchly supported first by my former student turned assistant Tamara de Rijk, and when it became a reality, by the appointment of Julia Noordegraaf, an art historian with a passion for cinema, cultural heritage, and archival work.

If these were some of the external factors leading to the P&P program, the main philosophy behind the course is indicated in its title: the Master's Degree regards the archiving, cataloguing, and conservation part—what we call 'preservation'—as integrally linked to the programming, exhibition, and display part—what we call 'presentation'. This may have seemed over-ambitious and contentious, given the little time the student has, but it imposed itself not only for pragmatic reasons. It represents a deeply held conviction among those responsible for the program: namely that the "life of films" is inseparable from "films live." What does this mean? The physical conservation of films, by which is meant the detailed types of knowledge that go with the specificity of the material supports of films (nitrate, acetate, polyester celluloid-based, as well as digital carriers) necessarily supports the life of films, made up of the material conditions of their survival as texts, objects, artifacts, as cultural memory and even forensic evidence. And this "life" is inseparable from "films live," the living context of keeping the experience of films, and the values that our film heritage embodies, alive for each new generation. This "keeping films live" is especially important in the face of—and in open dialogue with—the many delivery systems (DVDs, streaming video) and platforms (monitors, laptops, and smartphones) that have become available for viewing films. But it also affects the very different uses that our audio-visual heritage is being put to, in the museum space, on television and in the home.

This "keeping alive" requires renewed reflection of what a "live" performance of a film once was:

knowledge about the musical accompaniment for silent films; the technical apparatus of projecting sound film or the equipment needed for wide-screen and 3-D, for instance; cinema architecture and other spaces used for public viewing and projection; how a feature film was programmed along with other filmic material, such as newsreels or shorts; the commissioning institutions of non-fiction films and the different and the contexts of their reception, including industrial films, advertising films, training films: what came to be called "Films that Work." Besides this properly historical, possibly antiquarian aspect of "keeping films alive," another important aspect are the different efforts undertaken of how films can be brought "back to life" for generations, whose viewing habits are shaped by television and the digital media, by different music cultures and sound-spaces, and whose primary experiences of moving images takes place in locations and environments other than the traditional cinema: screenings of "silents" with live music, and open air theatres or town squares have attracted a new public, but also posed challenges for archivists: the annual meetings of 'Il Cinema ritrovato' organized by the Cinematheque of Bologna has been a pioneer in this respect.

Calling the MA program 'Preservation and Presentation' was also an intervention in an old debate among cinematheques, whose directors were often split between seemingly incompatible alternatives. I am referring to the classical (and by now quasi-mythical) divide among the first generation of film archivists—between a Henry Langlois (Cinemathèque française, Paris) faction, whose motto was "showing is preserving," and a Ernest Lindgren (BFI London) school: "preservation must have priority over showing." We wanted to bridge the divide, not by disavowing it, and instead by problematizing once more the questions standing behind their respective choices: preserve what, how, for whom, and in view of what criteria of selection and prioritization. These issues are as relevant today as they were in the 1940s and 1950s, during FIAF's formative years, even if digital technologies now offer a vastly more extensive toolbox for coming up with creative solutions. Having myself been converted from the sectarian faith of Hollywood auteurism and the polemics of French *cinéphilia* to the Broad Church of early cinema and the non-hierarchised inclusiveness of archival collections, through the annual festivals in Pordenone ('Giornate del cinema muto') and Bol-

ogna ('Il Cinema ritrovato'), it has become a matter of conviction that preservation and presentation are two sides of the same coin, when it comes to taking care of our audiovisual heritage and of acknowledging the cinema's ever-increasing importance in shaping cultural memory during the past hundred years. How does P&P offer not just a solid academic background, but also courses that meet the particular situations and dilemmas of the archives? As we know, a commitment to preservation and presentation is for the archives only the beginning of the problem: do they concentrate on the masterpieces and consolidate the processes of canonisation? Do they follow with their screenings and retrospectives topical issues in society at large, and service the needs of the cultural calendar of events and anniversaries? How can they best promote knowledge of and display what is usually the larger parts of their holdings, namely the average output of commercial film production, which, in some countries, may have little direct connection with the national patrimony? How can they valorise their incidental fragments, the non-fiction holdings, the "bits and pieces," which have been ennobled (or sentimentalized?) by being called the "orphans" of the cinema? If labelling everything that has survived "culturally valuable" and part of the national "patrimony" means drowning in the sheer quantity of material, how can an archive intervene in the cycle that affects all commodities, including those of popular culture - going from premium value when first released to commercial uselessness, via their non-status as junk, and then to a new life as cult-objects, as collectible and once more valuable "classics"? And how can such processes of cultural capital generation be adapted to the life cycles and value cycles of the commodity film? If a course in Film Theory at present does not recommend itself to the Archive for determining their criteria for selection and de-selection, there is no reason why there cannot be a film theory that sets out the terms of those aesthetic debates, those parameters of stylistic practice, and those historical conditions of discursive (re-)valorisation, on the strength of which archivists then make informed decisions about the presentation of their holdings?

It is here that I see a particular opportunity for a university-based course, as a site that analyses, debates and occasionally also launches new discourses, by adapting existing ones from within the field, or by initiating a dialogue with adjacent disciplines. For instance, what emerged in the Amsterdam context was, on the one hand, an interest in media-archaeology and the relation between 1900 and 2000 as major transformational media epistemes (imagined futures) and, on the other hand, an intensified reflection, at a fairly advanced level of generality, about a new poetics of the fragment and the rhetoric of montage, about the status of the found object, and the aesthetics of repetition and seriality, of the migration of motifs and the transfer of tropes. Of course, this is nothing new: these topics have preoccupied the humanities for at least the last two decades, and within film history have led to seminars on "found footage" film, on the "essay film," on a new poetics, but also a new semio-pragmatics of, for instance, the factual film and the utilitarian film (for industrial use, training, advertising, instruction). While some film scholars working in this area have begun to rethink the practices also of the avant-garde, and have looked to museums and installation art for examples of such a poetics of montage and metaphor, the contacts with film archives have so far been less visible.

Filmmakers such as Peter Delpeut (*Lyrical Nitrate*), Harun Farocki (*Leben BRD*), Peter Forgacs (*The Maestrom*) or Gustav Deutsch (*Film ist*) have shown what such collaboration between archives and artists can yield. Another more practical topic explored by the film studies community is a politically responsible and theoretically informed practice for providing scholarly expertise for educational, but also commercial DVDs. Problematic as a tool of preservation and maybe even research, the DVD and its "bonus" features has been a powerful communication tool and education resource, whose programming or "packaging" poses challenges to the archivist as well as to the film theorist. The DVD editions of the Filmmuseum—and to which our students have made significant contributions—are a clear indication of the value of such collaboration. Video essays, mash-ups and super cuts are the natural extension, whose archival and pedagogical value are increasingly recognized.

We can therefore be confident that P&P and the Amsterdam model are not just ambitious, but far-sighted and on the right track—in many of its different directions. By bringing together a well-established university and prestigious media archives, the MA has shown the way: how to maximise the advantages that come from being located in a city that may be at the periphery of continental Europe, but that is—in culture, education, transport and com-

merce—a "hub" not least because linguistically, it is comfortably Anglophone. As a well-known European heritage capital, an important tourist site, and a city that is home to some of the top museums in the world, Amsterdam occupies also a strategic position with regards to media and culture. Its festival circuit throughout the year is in many ways typical of wider trends in city management and branding, reflecting the insight that economic well-being and future developments in the urban knowledge economy depend on a blend of heritage and high-tech, of tourism and internationally competitive institutions of higher education.

At the same time, the MA course paradoxically benefits from the city's geographical ex-centricity, even its regionalism and marginality, when compared to, say, London and Paris. Archives of such capital cities tend to "represent" their respective film cultures in the image of the "nation" and thus define the national patrimony in canonical terms, e.g. as manifest in the priority given to restoration projects of the masterpieces and classics of French cinema and Paris, and of German cinema by the Munich Filmmuseum in the 1980s and in Berlin since German unification. A "small" country and its film archive can, by contrast, afford to be more international and transnational, promoting an especially diverse cultural preservation and presentation policy. In Amsterdam, this diversity is emblematically embodied in the core of the holdings, the Jean Desmet collection. Originating from the distribution and exhibition practice of a cinema owner from the 1910s, its holdings—mostly films from Denmark, the USA, Germany, France and Italy, then the world's chief filmmaking nations—challenge the Filmmuseum to be innovative and unconventional above all in the presentation of this material, for which it cannot rely on previously established criteria of valorization, nor can it concentrate on "national" criteria. This in turn gives the students the opportunity to contribute actively to the discussions around both the national-international role and the preservation criteria of the Amsterdam archive, redefining itself between a repository of international film production, a film museum open to the general public, and a service provider for a specialised educational community.

This last point, perhaps, also highlights another paradox, that of a-symmetrical value generation: the images and artifacts of the audiovisual heritage are exceptionally fragile, perishable and even materially unstable. They need substantial resources for their conservation and restoration, for the most part provided by the shrinking budgets of state and local authorities. At the same time, the demand for pristine, well-kept and perfectly preserved moving images of "the past" continues to increase, led by the insatiable appetite of television, but also fed by the advertising and design industries. As such, moving images increasingly represent commercially valuable assets. How to bridge this gap between the social cost of keeping these images alive, and the commercial benefits that can be drawn from them? Should archives be asked to finance themselves and their work by monetizing these assets commercially, possibly at the expense of the archives' cultural function and institutional autonomy? If they price their work competitively, do they not price themselves out of other 'markets', such as that of education, as well as risk redefining what is heritage and patrimony in direct proportion to their clients' interests and agendas? Perhaps it is here that the new alliance that has been struck between the archives and the universities will, in the long run, bear fruit—fruit as important as that of training a new generation of professionals: to maintain an independence of inquiry and openness of debate that makes "preservation and presentation" not just the service provider of the experience economy, but also its conscience and critical reflection? The cinema deserves no less, if it is indeed part of the cultural heritage and has a rightful place in a university curriculum.

I'm almost at the end of what I wanted to say. The second personal history which brought me to wanting to create an academic program on archiving and programming had to do with a film I happened to see on Dutch television in 1994, a documentary by Cherry Duyns, called *Settela, gezicht van het verleden* (1994). For me it is the story of a single image, and its strange history, which after I had researched it, gave me subsequently a whole new insight into the meaning of 'found footage' and the belief that we should be studying more seriously and more closely the "life" of images, as well as images "live." I have since written three essays about this image—one, called "One Train May be Hiding Another" can be accessed on the web. As for further thoughts on these and related matters, from myself and my Amsterdam colleagues, the bibliography provides some guidance.

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Minding the Materiality of Film

The Frankfurt Master's Program 'Film Culture: Archiving, Programming, Presentation'

Sonia Campanini, Vinzenz Hediger & Ines Bayer

Film—understood here as a succession of still images on a material support designed for projection, which results in a perception of movement—is an ephemeral medium. To show a film, as Paolo Cherchi Usai argues, is to destroy a film (2001). Perhaps more than any other medium, film requires special efforts of preservation to save its storage technology from what appears to be an irreversible material decay. Yet at the same time, a film only lives for and through an audience. One could argue that film is a four-fold object: First, a film is a given print; second, a film encompasses the entirety of prints (and versions) in which it is available; third, a film is a projection, an ephemeral event on a screen; and fourth, a film is the memory and record it leaves in the form of shared experiences and written texts. For its cultural meaning to come alive, a film must be projected and performed, but for that to be possible, its material base must be preserved. To elaborate on Cherchi Usai's point, a film is an ephemeral medium in the sense that it can only produce cultural meaning at the price of the impairment and ultimate destruction of its material base.

For the first roughly thirty years of film history, this paradox was of little concern to the people who made and screened films. With very few exceptions—such as the films of Charlie Chaplin that were reissued on a regular basis even in the 1920s—films usually had a shelf-life of a maximum of two years, and audiences almost never returned to watch a film more than once. That 80% of films produced prior to 1928 are irretrievably lost is not so much the result of negligence as it is a feature of the industry's business plan. The film industry of the so-called silent era was an exercise in planned obsolescence.

This changed with the emergence of the ciné-club movement in France, which evolved around a canon of masterpieces, and the first film collection and preservation efforts in the 1920s, which led to the creation of the British Film Institute, the Cinémathèque Française or the Museum of Modern Art's film department (Hagener 2007). These institutions set film on course to become a regular modern art, i.e. an art with a documented history and a consciousness of its own history (Wasson 2005). But it took another fifty years for what we might call the "Cherchi-Usai paradox" and its implications, which we discussed above, to come fully into view. Starting in the 1950s, the film industry discovered that films could have an infinite commercial lifespan through television broadcasts and video releases. Film preservation became a concern for studios, as well as a growing concern for the archives organized in the FIAF. Nitrate degradation, color dye fading, and the vinegar syndrome became key concerns of film archivists. In the 1970s and 1980s, film studies' turn to early cinema further sharpened a sense for the precarious nature of the material base of film. It is no coincidence that one of the first university training programs in film preservation was created in Amsterdam, where the Netherlands Filmmuseum became a major site of Early Cinema research.

There are several ways of responding to the Cherchi-Usai paradox. One of them is to think of film

archives as a kind of Svalbard Global Seed Vault for moving images. The Svalbard Global Seed Vault, located in Spitzebergen, Norway, is a meta-archive of the roughly 200 global seed banks. It stores seeds from all plants currently available in a nuclear-safe vault. The Svalbard Vault was built in view of the possible scenario of rebuilding the world food supply after some kind of civilization-ending catastrophic event. Until that time, the seeds are not be touched or used. Along similar lines, one could think of a film archive as a storage device for cultural meaning in view of post-apocalyptic reconstruction efforts. While some film archives tend to develop policies that go in this direction and strongly curtail the circulation of films, archives can also be seen as resources for contemporary cultural production. The very notion of *Filmmuseum* suggests that films should and will be screened, to make them accessible to contemporary audiences. These are the two positions at stake in the well-known Lindgren-Langlois debate about the role of film archive. While Lindgren—then the head of the BFI archives—stressed the primacy of preservation, Langlois was a champion of performance, of making films accessible through projection. While this tension persists, recent projects such as the Living Archive project of the Arsenal Institute für Film und Video Kunst in Berlin take the notion of the archive as cultural resource one step further. Artists and curators are invited into the archive to use its holdings for their projects as they please. They re-integrate the archives into what cultural economist Michael Hutter (2006) calls the "novelty spirals" of cultural innovation, i.e. the cycles in which historic works are taken as the template and foil for the creation of new works. But while they highlight the live of the archive as a cultural resource, such projects also highlight the tension inherent in the Cerchi-Usai paradox: "access" alters the contents of the archives, both by adding new layers of cultural meaning and wearing down their material base.

The Frankfurt master's program "Film Culture: Archiving, Programming, Presentation," which the departments of theater, film and media studies at Goethe-Universität Frankfurt and the Deutsches Filminstitut offer jointly since 2013, addresses the Cherchi-Usai paradox already in its title. Building on graduate level courses in film history as well as courses covering film economics, copyrights issues and the institutional dynamics of museums and festivals, the master's program requires a six-month intern-ship followed by a master's thesis in the second year. Combining state-of-the-art film studies with hands-on training in the field, the program aims to train scientific personnel for film and media archives and other institutions of film culture. The term "Film Culture" in the title indicates that the program indeed aims to bridge the two divergent poles of the Cherchi-Usai paradox, i.e. close the gulf between archiving and presentation on the one hand and programming and presentation on the other. "Minding the materiality of film" describes the ambition of the master's program: It aims to train scholars and specialists who are mindful of the ephemeral materiality of film, yet also use their imagination to develop ways of bringing their knowledge to the minds of others, thus re-inserting film archives in the cycles of the production of cultural meaning.

In the following, we would first provide a brief sketch of the history of the program, followed by a section on the programmatic aspects of the Frankfurt approach to training scientific personnel for film and media archives, and finally a section on the cooperation between university of archive as seen from the point of view of the program's key partner, the Deutsches Filminstitut.

1.

A Program Waiting to Happen: How the Frankfurt Master's Program 'Film Culture: Archiving, Programming, Presentation' Was Established (Vinzenz Hediger)

In 2004, the Ruhr Universität Bochum, Germany's sixth-largest research university and one of the first German universities to offer a film and media studies program, created an endowed chair for documentary film studies with a focus on non-artistic films, particularly industrial films. The chair was funded by the Krupp Foundation, which encouraged the university to hire a candidate with an interest in the corporation's important historical archive. Across the Ruhr valley, a number of similar corporate archives with film holdings from the classical period of industrial film (i.e. the 1930s through the 1970s) exist, among the Thyssen archive in Duisburg and the Mannesmann archive in Mülheim. This made Bochum a good location to address what was already then a pressing issue in film and media studies: The need for master's programs that train highly qualified scientific personnel for archives, along the lines proposed by the Pres-

ervation and Presentation Master offered jointly by the University of Amsterdam and the Netherlands Film Museum. When I took the Krupp professorship, Sabine Lenk was the director of the Filmmuseum in nearby Düsseldorf. Convinced that there was a demand for such a program, Sabine Lenk, Patrick Vonderau, who was then a post-doc at Bochum, and I set out to design a master's program in film archiving that would involve the Filmmuseum, the corporate archives of the Ruhr Valley, and be hosted academically by the Ruhr Universität. However, the initiative never really gained traction. In particular, the heads of the corporate archives were not convinced that there was a job market for graduates. They extrapolated from their own archives, which were primarily paper archives rather than film archives, and concluded that only a very limited number of jobs would ever be available for graduates of such a program. Even in Germany, potential employers, of course, include a variety of major film archives, from the Deutsches Filminstitut in Frankfurt to the Bundesarchiv Filmarchiv in Berlin and Koblenz, the Friedrich-Wilhelm-Murnau-Stiftung in Wiesbaden, and the Stiftung Deutsche Kinemathek in Berlin to the various state television archives and smaller archives, such as the collection of the Arsenal Institut für Film und Videokunst in Berlin. The initiative folded when Sabine Lenk left the Filmmuseum a couple of years later. The lesson learned from this failure was that a program of this kind could only succeed in collaboration with a strong institutional partner, an archive or film culture institution with a focus on collecting and preserving moving images. In particular, what was required was an institution with an understanding of the Cherchi-Usai paradox and its implications—that is an institution not only dedicated to the preservation of archival materials;at which the corporate archives in the Ruhr Valley excelled, but with a strong commitment to performing the archive, that is to making moving images accessible through projection and exhibition.

The opportunity to work with such a partner materialized in 2010, when I received a job offer from Goethe-Universität Frankfurt. The offer included the promise of a strong institutional partnership with the Deutsches Filminstitut, and I made the creation of a master's program in film archiving and presentation as part of my contract negotiation. Immediately upon my arrival in

Frankfurt in 2011, Claudia Dillmann, the director of the DIF, and myself got together to lay the groundwork of this program. As the director of one of Germany's largest institutions of film culture and a former advisor to the EU commission, Claudia Dillmann had a very different assessment of the job market for potential graduates. To her, the need for scientific personnel with a university pedigree was more than obvious. In fact, she had tried to create a similar program with university partners several times, but no specific plans had materialized. It took us one meeting to agree on the outlines of the program and the curriculum. In particular, we quickly concurred that students should obtain a solid training in film history and film historiography; they should acquire an understanding of the basics of museology and of the institutional dynamics of the institutions of film culture, from archives to museums to festivals.; they should understand the basics of copyright as well as the basics of marketing; and they should be thoroughly trained in the technical, material and institutional aspects of film archiving, programming and presentation. In concurrence with these goals, we enlisted the cooperation from the faculty of law and economics at the university, which allowed us to co-opt introductory courses on copyright law and marketing. We also re-assigned our in-house film scholar and archivist Bettina Schulte Strathaus to coordinate the university side of the program, i.e. to counsel students, prepare internships and coordinate with our institutional partners at the DIF, but also with the Arsenal - Institute for Film- and Video Art, with the Friedrich-Wilhelm-Murnau-Stiftung, and with all different kind of institutions such as film festivals, film-related research institutes, museums, cinemas, television stations and archives, production companies, film distributors, independent organisations, private archives and foundations, motion picture and video trade associations, film market, and press agencies, etc.

After a convincing personal pitch by Claudia Dillmann to the University president, the program was fast-tracked for accreditation and approved for a program start in the fall of 2013. In addition, we received support from the Hesse ministry of arts and sciences, which made funds from an initiative for innovation through teaching and research available for the program. Crucially for the success of the program, the funds from the ministry, which were later augmented by additional funds from

the Quandt Foundation, allowed us to create a so-called "Juniorprofessur," i.e. a non-tenure track six-year professorship for a post-doc scholar with a specialization in the field of film conservation and presentation. After an international job search, we were able to hire Sonia Campanini, a specialist for the restoration of film sound with a joint Ph.D. from Amsterdam and Udine, two of the leading schools in the field. Focusing her research and teaching almost entirely on archiving, programming and presentation, Sonia quickly established herself as the academic backbone of the program. At the core of the program is the cooperation between the university and the Deutsches Filminstitut, with the DIF offering a complete module on archive practice and archive politics taught by professionals from the institute. In order to be able to offer a broad choice and multiple perspectives in the internship phase of the program, the network of the program's partners was extended to include a number of other institutional partners, and it now actually spans the entire globe. Two important partners in the immediate neighbourhood are the Friedrich-Wilhelm-Murnau-Stiftung in Wiesbaden, the capital of Hesse, which is dedicated to the preservation of the German film heritage, and ZDF/ARTE, one of the two large German television networks, which is located in Mainz, also only a half-hour's train ride away from Frankfurt, and which also operates the German leg of the Franco-German arte television channel. Both partner institutions offer internships to the program's students, and ZDF/ARTE has even hired program graduates. Other institutional partners of the internship program include the EYE Nederlands Film Institute, the Academy of Motion Pictures Arts and Sciences and particularly the Margaret Herrick Library in Beverly Hills, and the Arsenal Institut für Film und Videokunst in Berlin.

All in all, it has been remarkably easy to set up the Frankfurt master's program. One of the reasons why we received so much support from the university and the ministry is that the program fits into a broader trend to redirect university teaching towards more specific professional profiles. Unless they train teachers, which is the preferred career choice of a plurality of students in history, philosophy, language and literature programs, from Germanistik to Romance Studies and English and American studies, the humanities are increasingly under pressure to justify their existence through what in German is called a "Praxisbezug," i.e. an orientation towards professional practice. I personally remain wary of this trend. The university remains a unique place of reflection, research, and innovation that thrives on the fact that it is walled off from the economic and political spheres of society. Curtailing the freedom of research and teaching by reducing university curricula to a variation of vocational training is a recipe for stagnation and regression. The German economy thrives partly on the strength of its system of vocational training, the "Berufslehre," which creates a strong supply of highly qualified technicians outside of the institutional frameworks of tertiary education. At the same time, the "Berufslehre" remains connected to tertiary education through the "Fachhochschulen," the universities of applied sciences, which offer a variety of degrees in professional sectors. To put the university under the yoke of a strict "Praxisbezug" creates dynamics that eventually lead to a redoubling of the thriving institutional frameworks of vocational training already in place.

The solution to this conundrum is to develop a profile that valorizes the specific strengths of a university degree program, yet creates a strong opening towards professional practice.

In the field of film preservation, the Hochschule für Technik und Wirtschaft (University of Applied Sciences) in Berlin offers a master's program in "Konservierung und Restaurierung," with a specialization in film restoration, headed by Martin Koerber, one of the leading figures in film restoration. The focus of this program is on the technical and practical aspects of film preservation and restoration. Rather than entering in competition with the Berlin Applied Sciences master's, the Frankfurt master's program covers an area that is adjacent and complementary. As already stated, the mission of the program is to train scientific personnel for film and media archives and other institutions of film culture. The specific focus is to offer an education that enables graduates to bridge the chasm of the Cherchi-Usai paradox. Graduates of the program are fully cognizant of the restrictions related to the precarious nature of the material basis of film. At the same time, they are capable of using their knowledge of film history, economics, law, and the arts to create ways to open up the archives, devise innovative ways of programming and exhibiting, and thus re-integrate historical film materials into the cycles of cultural innovation.

In that sense, the Frankfurt program thrives on the dynamics of two basic tensions: The tension inherent in the Cherchi-Usai paradox, and the tension between the university as an autonomous subsystem of society and the exhortation of the "Praxisbezug," the insistent calls for the university to pay heed to the practical requirements of professional life beyond its confines.

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2.
Teaching Film Culture: The Frankfurt Curriculum
(Sonia Campanini)

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As junior professor for Film Culture, I am responsible for the academic curriculum of the master's program "Film Culture: Archiving, Programming, Presentation." The curriculum is structured in four semesters and divided in six modules. In the first year students take lectures and seminars in the following modules: "film and media history, theory and aesthetics ,""film culture institutions," "film economy and media law," and "archive praxis and archive politics," which cover the four areas of expertise defined by Vinzenz Hediger above. In the third semester students engage in internships within film institutions in Germany and abroad, where they can pursue and implement a practical project in the field of film culture. The project leads to a documentation, which students add to their portfolio for applications after graduation. The fourth semester is dedicated to the development of a personal research project, elaborated in the form of a master's thesis: in the module "colloquium" students can discuss their works in progress under the supervision of their tutor.

The curriculum of the master's program is based on a close interconnection between theory and practice, which I support in my teaching and tutoring activity under the motto of *minding the materiality of film*. During my studies I had the possibility through international exchange programs to attend courses at the master's programs "Preservation and Presentation of the Moving Image" at Amsterdam University and "Moving Image Archive Studies" at University of California, Los Angeles. Both these pioneering programs are founded on a solid combination of theory and practice; the theoretical courses held by academics at the university are combined with seminars conducted by archival personnel in film institutions and complemented by hands on experience through internship

programs. As a student I found this combination between theory, history and archival practice extremely valuable. The conviction that this combination is not just an added value but a fundamental premise for the archival work got stronger during my professional experience in the field of film archiving. For working in film preservation and restoration as well as in film presentation and film curatorship, a deep historical and theoretical knowledge of film and media history and theories is in my opinion fundamental to better sustain the practices and techniques required in this field. In other words, one can be a better archivist, restorer and curator having a strong theoretical and historical background in film and media studies. On the other hand, one might also be a better film and media scholar having a basic knowledge of issues related to film archiving and presentation.

In the master's program, theory and practice are combined in such a way that they can mutually sustain and benefit from each other. Film history and media theory offer the basis for a critical reflection on film culture practices, while archival and curatorial work provide new insights into and relevant perspectives on the theoretical and historical reflection on film and media. The master's program aims at training scientific personnel for film culture intuitions, such as film and media archives, museums, festivals, as well as for film laboratories, televisions and media companies.

The program provides a solid scholarly knowledge of film and media as well as professional skills in film archiving and curatorship. At the same time, the program offers a research focus on film culture and archiving, with graduates becoming eligible for Ph.D. programs in film and media studies upon graduation. The research training group "Configurations of Film," which is funded by the Deutsche Forschungsgemeinschaft and housed at our department at Goethe-Universität Frankfurt, is one avenue for doctoral research on subjects related to film culture.

The master's program fully benefits from its framing in the university context. The students have access to the complete teaching schedule at the department of theater, film and media studies. Moreover, thanks to cooperation with the departments of economics, law and the master's program in curatorial studies, which is hosted by the department of art history, students can take classes on relevant subjects in the field of film culture—such as copy-

right law, film marketing, museum and exhibition practices—examining them from the perspectives and insights of other disciplines.

A core element of the academic curriculum consists of the introductory and specialized courses on film culture, which I conduct following the principle of the interrelation between theories and practices as well as a focus on the materiality of film. These courses are aimed at giving a basic scientific knowledge on film history and film technology as well as the theoretical foundations of film preservation, restoration, exhibition and curatorship.

The introductory course entitled "Die Materialität des Films und des Kinos" is centered on the issue of the materiality of film and cinema, which is analyzed in its different aspects within the perspective of film culture. During my graduate school years I first engaged with this focus on materiality in teaching film sound[1], starting from the observation that in film the material matters or, in words that recall the book by Eisenstein (1987 [1964]), the material is *nonindifferent*. In the theoretical reflection on the importance of the cinematographic material basis I find very useful to work on the concept of *material form* as elaborated by film art historian Cesare Brandi (2005 [1963]). This concept highlights the close interconnection between matter and form in the work of art, i.e. the conditions of material existence on one hand and the aesthetic manifestations of the content on the other. Applying this concept to cinema, the material form can be defined as the result of the interrelation of different factors.

In film studies the concept of materiality is usually linked to the film object, referring to the chemical and mechanical characteristics of the physical base, the film roll. I find it useful to expand this notion and consider that the material form of film encompass not only the material carrier but also the technological apparatus and the material conditions of film production and reception. Following this line of reasoning, the materiality of film can be defined on three levels: physical, instrumental, and formal. The *physical materiality* refers to film as a material object, as an artefact: it concerns the characteristics of the physical carrier both in the analogue and in the digital domain. The *instrumental materiality* concerns the cinematic apparatus—that is, the technologies used to produce and display the film—but also to the techniques adopted by technicians in employing those particular machines during production and exhibition (e.g. the use of anamorphic format, Technicolor system, Dolby Digital sound system and so on). The *formal materiality* refers to the formal aspects of film as received by spectators, i.e. the narrative content and the aesthetics qualities of film intended as an audiovisual text and a work of art.

Considering the interrelation of all this different levels, in the introductory course we discuss the material dimension of the medium film and of the cinematographic dispositive. The issue of film materiality became central in film theories after the conversion to digital cinema, referring mainly to the demise of the filmstrip. In class, we debate to what extent materiality pertains not only to the analogue film but also to digital cinema: in this sense it is useful to consider materiality as referring not just to the physical carrier but also to the technological and formal conditions of existence in film production and reception.

In this frame we analyze different cinematographic machines, technical apparatuses, and diverse color and sound systems. In approaching film materiality we benefit from the presence in our department of a 16 mm film archive with a variegated collection, as well as analogue film technologies such as film projectors, film cameras, film viewing tables. We have the possibility to project 16 mm films on a big screen, to handle film rolls and to experience the different characteristics of analogue and digital reproduction technologies. On a theoretical level, we discuss in class concepts such as cinema apparatus and dispositive, medium specificity, convergence and remediation, trace and indexicality.

A main question in the course is how the materiality of film relates to the film's inherent and permanent transition, i.e. to the continuous transformations that involve the technological, economic, institutional and aesthetic dimensions of cinema. The malleability of the medium film, its permanent transformation through different material forms is analyzed considering the dialectic between transition and transience: this means to acknowledge on one hand which characteristics of the material form change in the transition but also, on the other hand, what remains the same despite all the transformations. This theoretical approach is particularly useful when applied to film preservation and presentation practices, since it allows to reflect on the extent to which film restoration change the material form of film, which means to examine which

characteristics are getting lost in the restoration process and which other ones are remaining and persisting. Such considerations and discussions are useful to prepare students for their practical training during the praxis semester: with this theoretical and methodological background they gain tools to critically reflect on the practices learned in the field during the internship semester and possibly to use these considerations in the development of their master's thesis.

In addition to the seminar on film materiality, I foster a mutual contribution of theory and praxis in other seminars. For instance the course "Film Preservation and Restoration" aims at discussing the theories, practices and methodologies of film preservation and restoration. Here students tackle theoretical issues like the ones of original and version, text and artefact, reproducibility and authenticity. These different topics are discussed through the reading of theoretical contributions[2] and technical texts, as well as through the analysis of significant film restorations[3]. The examination of different restoration projects made by different institutions in different periods allow us to have a diachronic perspective on film preservation activity, i.e. to discuss film preservation and restoration as theories and praxis having a specific history and historical development.

In the course "Presenting Archival Films: Film Heritage Institutions, Archives and Festivals" we analyze the history of exemplary film archives and cinémathèques, their establishment as cultural institutions, and their different approaches to the "preserve vs. show" dilemma. Here we debate how film heritage institutions act and work in order to present archival films and we discuss which strategies they adopt in film curatorship. The activity of film heritage institutions as well as the one of film festivals dedicated to the presentation of archival films is to be considered as an important factor in the continuous redefinition of film history and film canons, as well as in the definition of film culture as part of social and collective memory. We also examine in which forms archival film as material artefact and cultural product survive in the digital media environment: in relation to this topic, the contemporary theories on archive, remediation, and convergence are explored.

Along with the courses on film culture subjects, students also attend seminars on film history, film theory and the economy of cinema, as well as on

topics related to early cinema, film sound, avant-garde cinema, where they can deepen their knowledge on the historical, technological and aesthetic dimensions of cinema. New theoretical approaches and methodologies in the field of film and media studies are also debated in curricular courses: for instance, in the seminar "Film History as Media Archaeology" the media archeological approach is used in tackling subject related to film archiving and preservation. A research and teaching subject that we intend to further establish in the following years is film and media literacy for schools.

Aside form the curricular courses and seminars, students profit from diverse extracurricular activities such as organized excursions to international conferences as the FIAF Congress and to international film festivals as the "Berlinale" in Berlin and "Il cinema ritrovato" in Bologna. A project recently developed within the master's program is "Think Film!," a student symposium dedicated to the discussion of problems, issues and projects in the field of film culture.

3.
The Role of the Deutsches Filminstitut
(Ines Bayer)

The Deutsches Filminstitut – DIF in Frankfurt and Wiesbaden has a long tradition as a place of teaching, learning and research. From the collection, preservation and scholarly analysis of film and film-related literature, to the compilation and validation of filmographic data and facilitating its access for the film industry and researchers, scholarship and research have played a central role at the Institute since its founding in 1949.

As an institution encompassing all fields of work essential to a film heritage institution, the consideration of the materiality of film, as outlined by Vinzenz Hediger above, is a central and permanent task underlying all the activities of the Deutsches Filminstitut. Our institute's work includes the collecting and archiving of film and film-related materials in our diverse archives; the curation of film programmes for our cinema and film festivals; the presentation of exhibitions on filmic themes in our film museum; and the fostering of film culture through a wide array of educational initiatives, publications and online projects. Each of those activities demands a careful balance between the primacy of the preservation of the original artefact

(Bohn 2013) and the desire to make it accessible to the public and thus part of the public discourse, a dilemma which is present in any film archivist's decision as to whether to clear an individual film print for projection, thereby necessarily exposing it to the impairing effect of the technical apparatus it will be running through. In accordance with Sonia Campanini's previous suggestion not to limit the term "the materiality of film" to the carrier medium itself, but to expressly include all kinds of artefacts linked to the production and the reception of film (including fan culture), one might add that the same dilemma applies to each collection archivist's decision to provide original artefacts like scripts, posters, photos, autographs, costumes, props, historical film journals, or film technical equipment, all of which the Deutsches Filminstitut collects and preserves in extensive archival departments, for the purpose of being exhibited in a museum, taking into account the risks that come with the exposure to light, transportation and changes of humidity and temperature. Thus, the notorious Langlois-Lindgren opposition, which pits making film accessible at all costs against rigorously preserving it, shines through the everyday practice of a film heritage institution (Dillmann 2016). That the Deutsches Filminstitut has always felt itself closer to Langlois than to Lindgren in this debate is a crucial element of our institution's identity and mission, complying with our central task of fostering film culture and promoting film heritage.[4]

When the Deutsches Filminstitut entered into partnership with the Goethe University in the form of the master's programme "Film Culture," conceived and shaped by Claudia Dillmann and Vinzenz Hediger, it was with the express aim to training and recruiting our own scholarly personnel. The diverse tasks of the Deutsches Filminstitut, performed in our archives, the cinema, the exhibition department, and the projects mentioned above, can in no way be seen as isolated activities. To create an impact with the audience and thus to function successfully within the wider context of film culture requires comprehensive strategies, constant dialogue and re-evaluation across departments. That such a wide-ranging understanding of film culture, including the overarching economic and copyright issues, need not be obtained by young employees while already working on the job, but can be brought into the position by graduates of the new master's programme as a resource to draw

upon right from the beginning, has been a major motivation for the commitment of the Deutsches Filminstitut.[5]

The interconnectivity of all fields of work within film culture has, if anything, grown during the past decade, which is due not least to digitisation. From the perspective of a film heritage institution, digitisation must, in many ways, be regarded as a challenge. It has transformed film archives, which have had to design workflows for the intake and handling of digital film files of different formats, with long-term storage posing a problem that has yet to be satisfactorily solved. Another effect has been less predictable: paradoxically, the digital revolution is causing the public collections of analogue film prints to grow significantly, with producers, distributors and filmmakers giving up their own storage facilities and offering the material to institutions like ours (an offer which we, of course, accept in order to prevent the prints from being destroyed). Thus, expertise in the handling of analogue film material is as much in demand as ever, with the additional requirement of designing and carrying out strategies for making the material accessible to the public. In contrast to a book, an analogue film print relies on the mediation of a technical apparatus in order to be properly 'deciphered'. With cinemas in Germany having gone fully digital from 2010 (in an industry effort largely helped by state funding), the projection facilities for analogue film prints are today, with the exception of museums and a small number of cinemas that still retain their 35mm projectors alongside their digital projectors, non-existent. Thus, access to the vast majority of the German film heritage can only be achieved through the digitisation of the films themselves.[6]

This is where we move from challenges to opportunities. Not least thanks to the efforts of Claudia Dillmann, who started convincing the authorities of the necessity of film digitisation both on a European and a national level in 2008, public funding of retrospective film digitisation began in 2013 and has gradually grown ever since, and there is now the prospect of steady federal funding for a decade and more. This is relevant for future graduates of our master's programme in more than one way. Firstly, there will be a constant demand for qualified personnel. Secondly, digitisation has not only changed the archive, but has opened up a multitude of new directions for film cultural initiatives in the

educational, curatorial or artistic sector, especially on the Internet, provided that the necessary copyright issues can be solved. Apart from that, with the advent of high-resolution digital projection technology, museums have become capable of using film excerpts as exhibits in their own right, not merely as illustration, as was hitherto the case (by showing film clips on small monitors).[7] One ought not to ignore the fact that with the obsolescence of analogue film technique and with the shifting of the dominant mode of reception of moving images from cinema to monitors, tablets and smartphones, the tasks of film heritage institutions are expanding insofar as strategies need to be developed to pass on the cultural practice of (analogue) cinema itself. The Deutsches Filminstitut has long started doing so in its many educational projects, which in the case of the statewide "SchulKinoWochen," taking place in 80 cinemas in mostly rural areas, often challenge school children and youth with their first-ever visit to a cinema, and which, in the case of the "MiniFilmclub," confront pre-school children with experimental film and with the mechanics of the analogue film apparatus. In 2015, as part of an exhibition of large-scale photographs of former film theatres now in a state of ruin and decay, our curators set up a 35mm projector, which was operated by a projectionist twice an hour, in a glass booth within the exhibition space, thereby raising awareness of the fact that the analogue film technique has already become a museum piece itself.

Regarding our teaching responsibilities within the Film Culture programme, a core element is the compulsory module "Archive Practice and Archive Policies," which is taught by the heads and specialists from our Institute's different departments. The lessons in the first term focus on the question of the materiality of film from the perspective of the film archive, with sessions mainly taking place in the Institute's film archive in Wiesbaden. In the second term, the seminars are built around all three core elements of archiving, programming and presentation: Sessions take place across the various departments of the Institute, be it using the special collections or the Filminstitut's library and text archive, working on film education and film literacy projects, fostering film culture on the Internet, developing database projects, curating film exhibitions, or designing cinema and festival programmes.

In our courses, we incorporate, as a matter of principle, all aspects of the Deutsches Filminstitut's work, thus taking a broad approach to film culture, while encouraging specialisation during the compulsory internship and the master's thesis in the second year. We align our teaching closely to the Institute's regular tasks and ongoing projects, while also keeping a keen eye on the working practices of other institutions. We talk about cultural management and about strategies for the financing of projects, and we make clear why continued lobbying with the relevant political authorities is important. As a member of the Association of European Cinémathèques (*Association des Cinémathèques Européennes*) and of the International Federation of Film Archives (*Féderation Internationale des Archives du Film*), the Deutsches Filminstitut brings international debates and models of best practice directly into our discussions with students, and we consistently supplement our teaching with workshops led by visitors from other institutions and professional contexts in order to ensure students have the widest possible exposure to film culture. Through these exchanges, students can engage with colleagues from European film libraries, festival directors, film critics and journalists, with copyright lawyers, and with key figures involved in film distribution, film production and marketing.

As a rule, we strive to deepen and to complement the students' theoretical understanding, as described by Sonia Campanini above, by aligning it with the work policies of our archives and curatorial departments, and by putting it to the test on actual practical tasks.[8] Thus, for example, the students' knowledge of the materiality of film, of the theory and history of film archiving, of the historical and technological developments in film restoration, and of the impact of digitisation, is challenged and expanded when we ask them, as an exercise, to compile a list of film titles to be designated for digitisation. In the process of doing so, the students have to consider archival criteria (the availability of source material either in our Institute's or in other film archives, its characteristics and physical state, and the technical conclusions arising from this when preparing the material for digitisation), curatorial criteria (the relevance of the individual film as seen from a film historical, film theoretical, aesthetic, educational, or any other perspective) and legal criteria (who holds the copyright, and what are the conditions under which the material may be digitised?). Similar experiences, always monitored and supported by our staff, can be made in the seminar sessions in our

other departments, with practical tasks including, among others, the identification and classification of different archival materials in the Institute's special collections or the creation of biographies for the Deutsches Filminstitut's online platform on German film, filmportal.de, following in-depth research in our text archive.[9] With "Treppe 41," a film club named after the staircase to the Deutsches Filmmuseum, we have also established a space for students to put curatorial theory into practice: With only minimal institutional input in areas such as budgeting, the film club members design and organise a programme of late-night screenings twice a month, securing theatrical rights, arranging the logistics, organising the publicity and presenting the films prior to their screening. Similar "training grounds" will be created in the course of a number of our Institute's projects in the future, to which the master's programme may be linked through special working groups and practical seminars. Current examples include the development of digital learning tools on the online platform filmportal.de, and the conception and delivery of smaller exhibition projects and publications from the holdings of the Deutsches Filminstitut. We also encourage students to develop their master's theses using the Institute's archives. The theses are co-supervised by the heads of archives and the project leaders, with the scope to go on to develop PhD projects.

Providing opportunities and support during the third term of the programme is another aspect of the Institute's commitment to students' learning and professional development. Over the past four years, a third of students have completed their three-month placement at one of the departments or on one of the Deutsches Filminstitut's in-house projects. In addition, we play an important role in facilitating internships at partner institutions. Recent examples of placements at film heritage institutions include the EYE Film Institute in Amsterdam, the Austrian Film Museum in Vienna, the èque Royale de Belgique in Brussels, the Academy of Motion Picture Arts and Sciences in Los Angeles, at the retrospective at the Berlin Film Festival, with the film periodical *epd Film* and with the specialist digitisation company Omnimago.[10]

The commitment of the Deutsches Filminstitut in the master's degree in Film Culture requires the input of the Institute's staff and resources, demands additional work from the departments and project leaders, requires the provision of rooms and tech-

nical infrastructure for conducting seminars, and incurs transport and accommodation costs for our external visitors. Without doubt, this would not be possible were it not for the partial sponsorship provided by the Hesse Ministry for Science and Art. But the time and financial expenditure required is worthwhile and valuable in every respect. Not least because the opportunity to engage and re-engage in theoretical discourse, to meet external visitors, and not least to talk to students gives us a fresh impetus to reflect on our own work and practice in new ways. In doing so, the master's programme creates a space for interdisciplinary exchange and for continuous reflection on the daily work in our Institute.

Conclusion

Academic film studies and film archives used to have history of eyeing each other with suspicion. Archivists often felt that film scholars engaged in lofty theorizing at the expense of a proper understanding of the basic materiality of film, while film scholars, even after the advent of apparatus theory, detected a positivist slant in the archivist's focus on the technical and material aspects of film preservation. That suspicion has long given way to the development of one of the most thriving and productive sub-fields in film and media studies. When we created the Frankfurt master's program "Film Culture: Archiving, Programming, Presentation," the fact that the cooperation between the DIF and the university also presented another triumph of productive curiosity and good sense over old habits was merely an afterthought. We have long moved past old inhibitions and understand that the university and the archives are partners in a project that mutually beneficial. In addition, the placement record of the program so far seems to indicate that our original assessment for the demand for qualified scientific personnel for film and media archives and other institutions of film culture has, if anything, been on the conservative side. With a number of research initiatives currently, among them a project on university archives directed by Sonia Campanini, and others in the planning stages, the Frankfurt program has also turned into an incubator for post-graduate research that offers long-term perspectives to graduates in academic research. The focus of our efforts now is to consolidate our gains and to make the program sustainable for the long run.

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Endnotes

1   I gathered some reflections on this topic in Campanini 2012.

2   The lectures are taken from among others: Cherchi Usai 2000; Read and Meyer 2000; Fossati 2009; Rasch and Dörnemann2011; Bohn 2013; Noordegraaf, Saba, Le Mâitre and Vinzenz Hediger 2013; Hagener2014; issues from the *Journal of Film Preservation*.

3   Examples here include *Inferno* (1911), *Das Cabinet des Dr. Caligari* (1920), *Faust* (1926), *Beyond the Rocks* (1922), *Metropolis* (1927), *Varieté* (1925), *Die Büchse der Pandora* (1929), *Bronenosets Patyomkin* (1926), *Napoléon* (1927), *Touch of Evil* (1958).

4   In Germany, the task of a national eque is assigned, by way of a contract between the federal states and the federal government concluded in 1978 and renewed in 2005, in equal shares to the Bundesarchiv-Filmarchiv, the Stiftung Deutsche Kinemathek (both in Berlin) and the Deutsches Filminstitut, who together form the *Kinematheksverbund*. While the Bundesarchiv-Filmarchiv acts as a central film archive, the Stiftung Deutsche Kinemathek and the Deutsches Filminstitut expressly perform the task of fostering film culture and of promoting German film heritage through film distribution, retrospectives, film festivals, exhibitions, publications, research and the accumulation of filmographic data.

5   We have already been successful in recruiting a number of outstanding graduates of the program; graduates have taken on positions in our film archive, in film literacy projects and as assistant to the Director,

while under-graduates work as research assistants in the Institute's online and database projects, in the film archive, in the special collections and in the library.

6   The Deutsches Filminstitut currently digitizes and digitally restores about 10 to 15 German feature films and/or short film programmes per year, among them classics (G.W. Pabst's *Der Schatz* [1922/23], Peter Lorre's *Der Verlorene* [1950/51]*,* Wolfgang Staudte's *Kirmes* [1960], Peter Fleischmann's *Das Unheil* [1970/71]) as well as rare archival programmes like *Tonbilder*—silent short films with matching soundtracks on shellac discs—or chromolithographic loops from the 1900s to the 1930s. It is crucial to stress here, in light of the current public debates which often fail to make that distinction, that for the Deutsches Filminstitut, the digitisation of analogue films is *only* a means to ensure accessibility of the German film heritage (by providing digitally restored files in the Digital Cinema Package for the purpose of cinema screenings, Blu-ray releases or online presentation), not a means of preserving the materials themselves. The preservation of analogue film still does require archiving the film material according to FIAF standards, in climate-controlled vaults and handled by qualified personnel.

7   Recently, the Deutsches Filmmuseum installed its very first exhibition restricting itself solely to large-screen projections: *RED – A Spatial Film Installation* (2017), comprising nearly 300 film excerpts which allowed visitors to engage with the different ways this most culturally significant of colours functions and operates in film. Being well aware that digital projection in gallery spaces can only serve as a reference to exhibiting the films in the reception context for which they were made, we complement such projects by showing many of the films in our in-house cinema, in their original format (35 mm, 16 mm, or 70 mm, or any digital format in the case of digital-born material).

8   We draw upon the same lectures as mentioned by Sonia Campanini, supplementing them with lectures on curatorial strategies (e.g. Cherchi Usai, Francis, Horwath and Loebenstein 2008; Gass 2017]); digitisation (European Commission, DG Information Society and Media 2011; Bordwell 2012); copyright and access (Klimpel and Euler 2014); and with a special emphasis on current debates in professional journals and blogs (*FORUM – Das Fachmagazin des Bundesarchivs; FIAF Journal of Film Preservation*).

9   Examples of such biographies written by students of our master's programme can be found on www.filmportal.de (for example, see the entries on director Dore O., composer Martin Böttcher or producer Seymour Nebenzahl).

10   Internships play a significant role in Germany's academic education system, especially in the humanities. Students are usually expected to have completed one or more internships, either voluntarily or because of the requirements of the curriculum, before they enter the job market. More often than not, interns receive no (or only low) pay for their work, a fact that has rightfully led to a debate about German "Praktikumskultur." On the other hand, the host institutions provide interns with a much-needed practical education, and frequently the way into regular employment leads through an internship.

The Materiality of Heritage
Moving Image Preservation Training at HTW Berlin

Ulrich Ruedel & Martin Koerber

Introduction

The Conservation and Restoration curriculum at *HTW – Hochschule für Technik und Wirtschaft* [University of Applied Sciences] Berlin, with audiovisual heritage as one of four dedicated specialization tracks, offers a hands-on and materials-science-based approach to education in moving image preservation. Here, the field is taught in a very broad, 'classical' conservation/restoration context. Teaching the entire breadth of audiovisual heritage preservation, including not only video, for instance, but also photography, provides strong synergy in ensuring an understanding of photographic materiality, chemistry and history of black and white and color imaging in general. Also, a substantial part of the fundamental training for students of audiovisual heritage in subjects such as cultural history, or training in relevant skills such as microscopy or cleaning techniques, is shared with students of parallel specialist education in preservation of archaeological/historic artefacts, industrial heritage/modern material, and field archaeology. Thus, where, for instance, the other two national film heritage programs in Potsdam and Frankfurt focus on "archiving, programming and presentation" (Frankfurt),[1] the focus of the HTW program is in the heritage objects' materiality, whether in passive conservation, material treatment, study of historical traces, scientific investigation, manual restoration or more historically, visually and ethically faithful duplication and digitization.

Teaching is headed by individual specialist professors corresponding to and responsible for each of the four B.A. and three M.A. tracks[2] heralding from a professional and academic background in the respective fields of museum object conservation/restoration (or field archaeology) and moving image and sound preservation, as well as a science professor devoted to the relevant chemistry and analytical-scientific investigations. Also, as discussed further below, a number of associate lecturers contribute teaching to specialized subjects, resulting in a combination of shared and specific training for each of the tracks, considered fully competitive with specialized individual training programs.

The school offers a seven semester B.A. program and a subsequent three semester M.A. program. Given appropriate certified training, candidates with Bachelor's degrees from other conservation/restoration programs are eligible for the Master's degree, optionally by joining select bachelor classes as needed.

The HTW program and the audiovisual track, in particular, have a strong belief in the international nature and opportunities in cultural heritage preservation, thus international candidates interested in studying moving image preservation in Berlin, Germany are specifically encouraged to apply. Towards this end, the program aims for regular presence during international festivals and conferences (such as through presentations in the REEL THING Symposium or the Pordenone Silent Film

Festival's Collegium), and through work with such professional organizations as FIAF (through membership in the Technical Commission, which allows for maximum alignment between the technical interests of the film preservation community and the respective research focus at HTW).

The Curriculum

The curriculum reflects both the shared foundations (culturally and ethically, technically and materially) of the different disciplines in classes taught for combined specializations, as well as their highly specialized nature. For instance, restoration ethics is taught for students of all fields together, reflecting how film restoration ethics is rooted in (or, sometimes, differs from) classical approaches, and includes reflections on texts ranging from the classics such as Riegl, Le Duc etc. to Benjamin, and Ray Edmondson's *Audiovisual Archiving Philosophy and Principles*[3]. Other classes are shared between the audiovisual preservation and modern materials/technical heritage tracks, since both share an interest in technology history of the 19th and 20th centuries or the chemistry of plastic materials.

In doing so, as one of the authors observed earlier

> The charm of the interdisciplinary concept […] is in essence its antagonism to an unfortunate separation of technical and philological aspects in restoration. The integration of archaeology furthermore counter-acts the unfortunate misconception that there is something inherently more modern about modern media than those records preserved on paper, paintings, and messages on clay tablets or stones. The shared basic training of all students fosters development of broad awareness for our culture, of which artefacts of audiovisual heritage do form specialized cases, albeit not free from their own presuppositions. (Koerber 2003, 62)

The cultural course topics for the audiovisual heritage students thus range from general cultural history of the 19th and 20th centuries to the specific history of film and photography. Science and restoration classes range from general materials science (general, inorganic and organic chemistry, history of metallurgy and of plastics, etc.) for stu-

dents from all tracks to, for instance, photographic chemistry for those in the audiovisual tracks, all of which provide a thorough grounding in, and awareness for, the material nature of images. Practical restoration classes ranging from manual photography restoration (dry and solvent cleaning and retouching) to digital moving image and sound processing acknowledge the imminent changes and opportunities owed to digitization as much than the history of more than a century of photo-chemical imaging. Training in collection surveys and passive conservation is shared with the students of archeological restoration, while the HTW's own media archive of GDR audiovisual training materials (see below) offers an opportunity to apply student's recently acquired methodologies to a relevant audiovisual collection in house. A number of group and individual projects throughout the seven semesters are an integral part of the bachelor and master curricula and theses. These can include work on individual objects from the university's collection, or objects on loan from partnering institutions. Notable recent projects include Sowon Choi's master thesis work on German Missionary Films Shot in Korea in 1925 (Choi, 2016) and the semester project by two students, Corinna Reinhard and Lea Frankenbach, on manually-chemically removing misguided historic china ink interventions, likely dating from the 1950s or 1960s, on emulsion-damaged areas in one reel of a vintage nitrate print (held by Bundesarchiv) of *Der Kampf ums Matterhorn* (Germany, 1928) for a 2016 digitization project by *Deutsches Filminstitut* – DIF.[4] These semester and thesis projects, as well as choice of classes, subjects of study assignments and thesis, and an external internship allow students to either enjoy relatively broad training in audiovisual heritage, or to pursue further specializations such as classical photography restoration, recorded sound, magnetic tape, and scientific means of studying the materiality of media. The recent revision of the bachelor and master curricula has aimed to further strengthen existing and emerging partnerships with other fields of restoration and field archeology. For instance, in recent years, a surprising kinship between digital archeology and digital restoration of audiovisual heritage has emerged, while the most important synergy remains the one with conservation science (in particular, analytical and materials chemistry).

A brief history of the study program

Founded in 1993, the conservation and restoration curriculum emerged from a distance-learning program in restoration dating back to the GDR era. Officially having commenced in the winter semester 1993/94, the history of the degree course dates back substantially further, as outlined by Matthias Knaut in a retrospective essay (Knaut, 2003). Plans to establish this type of training date back both to initiatives in the German Democratic Republic in 1976, where distance learning for restorers had been established at Museum of German History in East Berlin, while an initiative of the National Museums to launch a restoration study program in the mid-1970s ultimately failed. Following the German re-unification, these initiatives effectively merged into a 1992 proposal to launch a dedicated restoration curriculum with a threefold focus on archaeological cultural heritage, technical heritage as well as photo, film and data carriers, while further integrating excavation technology (field archaeology) into the course. Finally, in winter 1993, the course commenced with two focus professors for archeological heritage and technical heritage, while the professorships in natural sciences and photo/film/data carriers were first filled in 2000 and 2003, respectively, the latter by the co-author Professor Koerber.

Both authors of this paper have been privileged to lead the audiovisual track of the program from 2003-2007, Professor Martin Koerber headed the specialization (then known as 'photo/film/data carrier'). Professor Koerber's return as head of the film archive to the Deutsche Kinemathek in 2007, combined with his ongoing commitment to and teaching as professor for the HTW program has resulted in an especially strong connection between the school and the Kinemathek. Opened in 1963 on the basis of director and archivist Gerhardt Lamprecht's film collection, the institution is one of the most important German archives, renowned for a number of film reconstructions. The institution holds a collection of some 26,000 films as well as a host of non-film materials, and since 2000, has exhibited in the Filmmuseum at Potsdamer Platz, Berlin.[5] Projects for individual students or groups are now routinely conducted in the archive's collections, as are preservation screenings of classic silent and sound films in the screening room of the archive as part of the film history. class In including films which have been subject to restoration projects headed by Professor Koerber, these classes particularly reflect the intimate relationship between film history and the preservation of works forming it. The appointment of Professor Ruedel in 2015, originally an analytical chemist before becoming internationally active in film preservation in different positions and institutions, on Prof. Koerber's former position further strengthened the scientific, material approach to moving image preservation.

HTW's heritage: the Media Archive

One of the more serendipitous opportunities afforded by the school is provided by its 'media archive,' a collection of films, magnetic tapes, as well as sets of slides and overhead transparencies, originating from IFBT – *Institut für Film, Bild und Ton* [Institute for Film, Image and Sound], an institution subordinate to the East German Department of Education, and materials dating back as far as the 1940s. Comprehensively documenting university didactics from about 1962 to the end of the German Democratic Republic, these archival materials offer research opportunities not only in audiovisual materials history, but also in film studies of non-theatrical film and the humanities. Effectively saved (and occasionally used for multimedia teaching exercises) by Professor Jürgen Sieck, of the former FHTW, the collection found its way to the conservation and restoration program, under the aegis of Prof. Koerber (Koerber 2003). While a fair share of the necessary work indicated by Koerber– most prominently, reorganizing of the materials in the HTW vaults and establishment of an online database—the latter during an extensive project initiated in 2008, work remains to be done in addition to ongoing monitoring (Koerber, 2003). For instance, it was only recently that the slide collection was investigated more deeply in a first student project, evidencing the film materials and duplicating chains known for cinema rather than still films in the collection of loan slides and master materials. This underlines the value of the collection not only as history of didactic, but indeed also of a repository of East German film, photo and audiovisual carrier materials.

Present and future directions

The availability of two professors from the field of moving image restoration, preservation and archiving is a particular strength for that track, and the audiovisual heritage track at HTW's Conservation and Restoration program has always embraced a broad approach.

An indispensable asset to the curriculum adding very specialized strengths are the visiting scholars teaching specific classes in moving image and sound restoration. These currently include Nadja Wallaszkovits (Phonogrammarchiv - Austrian Academy of Sciences) on the preservation of sound, Fenna Yola Tykwer (Universalmuseum Joanneum) on video, Egbert Koppe (Bundesarchiv-Filmarchiv) on digital sound restoration, and Andrea Krämer (Arri) on digital image restoration, the latter a HTW graduate continuing the class and tradition established by Julia Wallmüller, also graduate of the then-FHTW program.

The current research, project, and education strategy, as reflected in the curricula and collaborative and research projects (which students participate in), pursues the following goals:

- Embracing and furthering a materials-based approach in moving image preservation through applying both classical, manual approaches (e.g. refined cleaning methods) as well as conservation chemical techniques (particularly, techniques of analytical chemistry/conservation science) to the field of moving image and sound.
- Scientifically studying the relationship between a moving image's visual impression and the materiality of its imaging layer (gelatin, grains, tinting and chromogenic dyes, metal and mordant tones etc.), in particular as regards the measurement, reproduction, recreation, and scientific documentation of moving image color through spectroscopy/colorimetry.
- Furthering the understanding of passive conservation strategies, the decay and possible chemical recovery mechanisms of moving image carrier materials such as cellulose nitrate—a daunting task and very long term goal to propose specific realistic milestones for, given that a sufficient understanding of the vinegar syndrome, or that of paper acidification for that matter, has required decades of research, yet one that should be reflected in the breadth of topics for student projects and theses—i.e. the decay of the select few polymers relevant in the audiovisual field, offering obvious synergies with the expertise of plastics conservation pursued in the HTW sister track record focusing on modern industrial materials.
- Last, embracing the challenge of digitization and the emergence of born-digital media, while remaining aware of an inherent, important caveat expressed by Koerber in 2003, and still equally true more than a decade later: "We would be well advised to limit our activities to those media carrying encoded photographic, moving image and sound recordings. Data preservation in IT […] has similar, but also vastly different problems and solutions, not quite immediately related to those of restoration and philology" (Koerber 2003, 63).

Tools and Techniques

The interdisciplinarity of the conservation/restoration curriculum, the audiovisual track in particular, and the need for special equipment, demand and encourage that students find opportunities for external projects and internships. Consequently, archival work in the Berlin area, or elsewhere nationally or internationally, is as crucial for the moving image and sound restoration students as, for example, field trips for archeological excavations for the students of that specialization. That being said, dedicated working (and hands-on teaching) environments for the conservation and restoration are available at the school. In addition to restoration studios such as for photography work, these include a media-teaching laboratory with a variety of disc, audio and video playback machines, a digitization setup and a *Diamant Film Restoration Software* workstation to practice moving image restoration. Furthermore, a dedicated room is equipped and available for work with nitrate film elements. Moving image equipment available to students includes 16 and 35mm sound Steenbeck viewing tables, inspection benches and a synchronizer. The scientific working and teaching spaces include a microscopy room (including the instrumentation required for

preparing cross-sections of specimens) as well as a chemistry laboratory. An FT-IR (Fourier Transformation Infrared) Spectroscopy instrument allows for non-destructive analysis for *organic structure* towards, for instance, the determination of image carriers, adhesives, plastics, binders, etc., often in direct comparison with a library of relevant spectra. Complementing this, the technique of XRF (X Ray Fluorescence Spectroscopy), a non-destructive *elementary (atomic)* analysis, is especially powerful for the identification of chemical elements, such as the metals in colour toning or in early natural colour film systems. Reflecting a particular interest in early colour, a dedicated Konica-Minolta colorimeter/UV-Vis spectrophotometer has most recently been installed in 2017 in collaboration with the Clothing Technology degree course. Thus, analytical-chemical study of audiovisual plastic carriers, binding layers, image metals and organic dyes, as well as calculation of the colour impressions they provide are now all available for education and research in moving image preservation at HTW.

Internationalization, Outreach, Conferences

Furthering collaborative projects with moving image archives, the program enjoys particularly fruitful and long-standing collaborations with *Stiftung Deutsche Kinemathek* and *Bundesarchiv*), nationally (such as the project with DIF – *Deutsches Filminstitut* regarding *Der Kampf ums Matterhorn* mentioned above, or, thus far, two separate projects focusing on the materiality and color of chromolithographic loops)—and internationally, remains crucial. Furthermore, a teaching collaboration with the Film Heritage masters program *Filmuniversität Babelsberg* Konrad Wolf is already informally underway, strengthening the connection between the materials/conservation/restoration aspects of the moving image heritage, and its historic study and contemporary dissemination, through exchange visits of students and teachers or in joint events during either program's annual field trip to the *Cinema Ritrovato*.

Internationalization is believed to be crucial for the future of moving image preservation, and this is also increasingly reflected in the student body. While teaching at the HTW program is in both German and English, past graduates have also included professionals both from Iceland and Korea, for example.[6] The school continues to strongly encourage international candidates to apply, and maintain active ties to FIAF and FIAF's technical commission, to BFI, BFI's FoFA (Future of Film Archiving) group, to the Colour Group Great Britain, to the University of Zurich (ERC Advanced Grant FilmColors and SNF Film Colors. Technologies, Cultures, Institutions) and other international archives, professional groups, film preservation training programs and other players in the field of moving image preservation. Two conference endeavors associated with the HTW program add to the training, education and networking opportunities afforded to the students. Co-organized by the Conservation and Restoration program's *Modern Materials* track, the biannual *Plastics Heritage* conference deals with a subject of obvious relevance to the moving image and sound field. Although covering a substantially wider range of relevant polymers than those historically used for photography, film and tape carriers, it has been known to sport relevant sessions and contributions on the specific challenges of select plastic materials as image and sound carriers. The *International Conference, Colour in Film* has been established in 2016[7]. Co-organized by HTW and the Colour Group (GB), the conference was first held in London in early March 2016. Its return to London in late March 2017 marks the aspiration to establish it as a regular conference. *Colour in Film* is intended to foster and stimulate the interaction between the two vibrant, but still separate, colour film restoration and colour science circles. It is explicitly aimed at everyone, specialist or non-specialist alike, interested in colour in cinema, colour in cultural heritage, colour reproduction and restoration, and colour perception. The 2017 edition has been held in cooperation not only, as in 2016, with the British Film Institute (BFI), but also with both ERC Advanced Grant FilmColors (University of Zurich) and The Eastman Revolution project (University of Bristol), thus bringing in and together the two most relevant current colour film research projects. 2017 also marks the addition of student presentations, to help foster the next generation of interdisciplinary and internationally oriented film preservationist—a goal fully shared between the conference organizers and HTW's degree in audiovisual heritage.

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Endnotes

1   As translated from https://www.uni-frankfurt.de/45978235/filmkultur
2   Students of field archaeology can continue their studies towards a master's degree in a separate course in cooperation between HTW and FU Berlin.
3   Third Edition, 2016, http://unesdoc.unesco.org/images/0024/002439/243973e.pdf
4   Also see the respective report from German regional television, embedded here http://krg.htw-berlin.de/studium/studienschwerpunkte/audio-visuelles-und-fotografisches-kulturgut-moderne-medien-avf/ or directly available at https://www.youtube.com/watch?v=4tFBUTTYWcM
5   https://www.deutsche-kinemathek.de/en/about-us/history
6   See, for instance, the study by Choi as an example of a project that only became possible through such a transnational approach.
7   Please visit www.colour-in-film.net for information on upcoming editions.

Upholding Tradition

The Master's Program in Film Heritage at the Film University Babelsberg "Konrad Wolf"

Oliver Hanley

Introduction

Launched in the winter of 2015, the Master of Arts (M.A.) degree program in "Filmkulturerbe" [Film Heritage] at the Film University Babelsberg "Konrad Wolf" in Potsdam, Germany, is perhaps the youngest academic program dealing specifically with audiovisual heritage. It constitutes, moreover, one of only three such programs in the country together with the Goethe University Frankfurt's "Film Culture: Archiving, Programming, Presentation" M.A. program, launched just two years previously, as well as the longer-established B.A. and M.A. programs in "Conservation and Restoration" offered by the HTW—University of Applied Sciences in Berlin. While they share a common overall focus on the preservation of audiovisual heritage in the broadest sense, the "Film Heritage" M.A. distinguishes itself from the other programs due not only to its content and structure but also to the Film University's unique history and interdisciplinary structure. The following article provides an overview of the program as well as a rundown of the key events and milestones leading to its formation.

The Film University

The Film University Babelsberg "Konrad Wolf," as it has been known since 2014, was founded as the German Academy for Film Art in 1954, and was initially a training facility for the state-run East German film industry (Brombach, Ebbrecht, Wahl 2015, 79). It was the first and, until 1966, the only film school in Germany, East or West, and it would remain the sole film school in the German Democratic Republic.

In 1969, two years after it had formally added training programs for television to its portfolio, the institution was renamed Deutsche Hochschule für Film und Fernsehen [Academy of Film and Television]. In 1985, the moniker "Konrad Wolf" was added in tribute to the celebrated East German director who had died three years previously. This name would remain unchanged until the Academy attained university status on the eve of its 60th anniversary.

Since the year 2000, the Film University has been located in Potsdam-Babelsberg's "Medienstadt," opposite the famous Babelsberg Film Studios, whose history dates back to 1911. Aligning the university geographically with the historic studio in this way thus placed it at the very heart of Germany's film heritage; an act which has since gained added relevance.

From Film School to "Research Center for Film Heritage"

While the "Film Heritage" M.A. program was launched only in late 2015, the course of events which cumulatively led to its creation can be traced

back some four years prior, beginning with the integration of Filmmuseum Potsdam within the Film University in July 2011. While not the first German institution to bear this title, Filmmuseum Potsdam, formerly the Filmmuseum of the GDR, was the first museum in Germany to combine collections (encompassing all manner of film and film-related objects dating back to the origins of cinema in the late 19th century) with dedicated exhibition spaces and an in-house repertory cinema. Its opening in 1981 predated that of its West-German counterpart, the German Film Museum in Frankfurt, by three years.

The decision of the local Ministry for Science, Research and Culture to incorporate the Filmmuseum Potsdam within the Film University was an attempt to save the museum following a period of severe financial difficulty that had jeopardized its continued existence. While the fusion was initially viewed by some as a form of "downgrading" that could injure the museum's status as a cultural heritage institution within the region (Stracke-Neumann 2011), it has nonetheless proven significant in two principal regards: The combination of film heritage and academic institutions in this manner lent a form of scholarly certification to the museum and its work, setting Filmmuseum Potsdam, as the only film museum in Germany that is part of an academic institution, apart from its contemporaries such as the aforementioned German Film Museum in Frankfurt (itself a part of the German Film Institute since 2006), the Filmmuseums in Munich and Düsseldorf or the Deutsche Kinemathek–Museum für Film und Fernsehen in Berlin. Additionally, the merger managed to establish film heritage on the Film University's agenda for the first time.

The "scholarly certification" of the Filmmuseum's activities began with the appointment of Dr. Michael Wedel, Professor for Media History at the Film University since 2009, as the Filmmuseum's co-director alongside Bärbel Dalichow, who had served as sole director since 1990. It was in this function that Wedel, a veteran teacher of the "Preservation and Presentation of the Moving Image" M.A. program from his time as assistant to Thomas Elsaesser at the University of Amsterdam, first banded the idea of an academic degree program focused on film heritage, something which was already well-established internationally, but at that time still lacking in Germany.

The next major event leading to the formation of the "Film Heritage" program was the appointment of Dr. Chris Wahl as Professor for Audiovisual Cultural Heritage through an endowment from the German Research Foundation's Heisenberg program (Filmuniversität 2013). Wahl considered the foundation's decision to award him the fellowship "logical" as it reflected the increasing government and public awareness of film heritage in Germany, particularly in light of the onset of digital technology in the production of moving images and its impact on their preservation and exhibition. For Wahl, the establishment of an academic study program devoted to film heritage formed a "central aspect" of his professorship as it would serve as a step towards opening up the discourse on film heritage in Germany beyond the film archives. As he saw it, the Film University was the prime location for the "triad" of "teaching, research and public events on film heritage" he envisaged (Busche 2013).

Wahl's own long-nurtured preoccupation with film heritage had led just a few months earlier to the launch of a pioneering weblog, "Memento Movie" (www.memento-movie.de), funded by the German Federal Government's Commissioner for Culture and Media. The blog, which Wahl continues to edit together with co-founder Jürgen Keiper, serves as a virtual discussion platform for audiovisual heritage issues. Since its inception, a number of websites have emerged in Germany that focus on the latest political, cultural and technical developments in film heritage matters both in Germany and abroad. Notable examples include the accompanying website to the "Film Heritage in Danger" campaign initiated by film historian and journalist Dr. Klaus Kreimeier (filmerbe-in-gefahr.de), filmdokumente-retten.org as well as its English-language counterpart Save-German-Film-Documents.org by historian Dr. Dirk Alt, and Kinematheken.info launched by filmmaker Helmut Herbst and film critic Daniel Kothenschulte.

In the years before the M.A. program was launched, Wahl was active in organizing symposia and workshops on film heritage, he also inaugurated a German-language book series on the subject,[1] and successfully applied for funding for the multipart, DFG-sponsored research project "Regional Film Culture in Brandenburg,"[2] where part of the focus was placed on the Film University's own archive of films made by its past students.[3]

When Bärbel Dalichow retired in 2013, the position of Filmmuseum Potsdam's director was remodeled as a professorship at the Film University, effectively combining the roles previously held by Dalichow and Michael Wedel (Nowak 2013). In July 2014, Dr. Ursula von Keitz, formerly a Professor for Film and Media Studies at the universities in Bonn and Konstanz, was appointed Professor for Film Research and Film Education in the Museum and director of the Filmmuseum. Von Keitz was also no stranger to film heritage matters, having served as head curator and deputy director of the German Film Institute from 1998 to 2000, and head of an ongoing, DFG-sponsored research project on the history of documentary filmmaking in Germany between 1945 and 2005 (Filmuniversität 2014). In her new dual role, von Keitz would not only oversee the Filmmuseum's operations but also provide courses at the Film University, instigate and head research projects, supervise doctoral theses as well as other activities normally associated with a university professor.

Von Keitz's appointment coincided with the decision by the Ministry for Science, Research and Culture to upgrade the Academy of Film and Television, as it was then still known, to a full-fledged university in recognition of its expanded academic profile. Aligning vocational and academic education and research, and augmented by Filmmuseum Potsdam, the Film University in its present form can be considered the only institution of its kind worldwide.

By now, all the necessary components were firmly in place—an in-house film museum, two professors sympathetic to film heritage issues, university status—and in October 2015 the "Film Heritage" M.A. program welcomed its first students.

The Program

Spanning four semesters, the "Film Heritage" M.A. program takes an "integrative and interdisciplinary" approach to the issues surrounding the global audiovisual heritage and film's pertinence to 20th century culture as well as its influence on current digital media culture.

While the "Conservation and Restoration" programs at the University of Applied Sciences in Berlin take a predominantly material-based approach to the preservation of audiovisual media that is more firmly rooted in conservation science

than in film or cultural studies,[4] and the Goethe University's "Film Culture" program centers on the, "technical, [...] administrative, economic and legal aspects of archiving, programming and presentation of commonly used film and AV media formats,"[5] the "Film Heritage" M.A. concentrates on the position of film, and audiovisual media in general, within the wider framework of cultural heritage, and the ever-changing interaction with, and use of, film heritage, and its process of canonization. From this starting point, various aspects of film heritage are explored, from "the safeguarding, evaluation, restoration, and reconstruction of films" through cataloging/contextualization, programming/editing and education to "the artistic, scientific, and commercial use of archive material." In the course of their studies in the first two semesters, students are introduced both to the core theoretical concepts as well as to the various practical fields which they can then explore in greater depth during a three-month work placement at one of the university's institutional partners that constitutes the core of the practice-oriented third semester. The fourth and final semester is reserved for the completion and subsequent defense of the students' Master theses.

Courses taught on the current program syllabus in the first two semesters focus on topics which include: "Cultural memory and cultures of remembrance;" "Theory and history of archives, libraries and museums;" "Film history;" "The study and use of sources in media history;" "Media archeology;" "Media law and politics;" "Documentary and artistic use of archive material."

The combination of theory and practice is mirrored in the content and structure of each individual course, where lectures and seminars are accompanied by regular excursions to museums and archives (e.g. the film storage vaults and printing and processing laboratory of the Federal Archive in Hoppegarten on the eastern border of Berlin), visits to major film festivals (e.g. *DOK Leipzig, Il Cinema Ritrovato*), and participation in workshops and symposia. Additionally, students have the possibility to earn credit points by contributing to a range of projects organized by the Film University's and Filmmuseum's staff including the retrospective of the annual student film festival, *Sehsüchte*; the annual UNESCO World Day for Audiovisual Heritage, as well as, from 2018 onwards, a local edition of the annual "celebration of amateur film

and filmmaking," *Home Movie Day*.
With only few exceptions, all of the courses were created especially for the program and are offered exclusively to its students, allowing for a close-knit, intimate teaching atmosphere and a fluid exchange between the students and teaching staff.

Students and Staff

A maximum of ten students are admitted to the program each year. While the program is primarily aimed at students coming from a background in film, media or communication studies, the 25 students admitted in the first three years stem from a variety of different disciplines including practical filmmaking (cinematography, production design, editing), photography, fine arts and conservation science, and this is indicative of the wide appeal that film heritage has attained in Germany in recent years. The teaching language is German (a conscious decision to provide an alternative to the pre-existing English-language programs in other countries). The program, however, is open to applicants from all nationalities and over a quarter of the current students hail from countries outside Germany including Italy, Spain, Serbia, Estonia, Greece, South Korea, and Mexico.

In addition to the two professors, three non-professorial staff members are currently assigned to the program: Dr. Philipp Stiasny, Johanne Hoppe and, from December 2016, the author of the present article.[6] This core teaching staff is augmented by guest lecturers for specialized topics. Regular, more extensive input is provided by Dr. Paul Klimpel (legal issues), Jürgen Keiper (online platforms for film heritage), Dr. Bettina Henzler (education and media literacy) and Birgit Acar (festival and cinema programming). Individual lectures have previously been provided by experts such as film critic and filmmaker Rüdiger Suchsland, historian and producer Felix Moeller, scholar and film editor Dr. Richard Misek (University of Kent), scholar and documentary filmmaker Eva Knopf (University of Hamburg / Filmakademie Baden-Württemberg), art historian Prof. Dr. Bénédicte Savoy (Technical University of Berlin), film historian and archivist Dr. Nico de Klerk (formerly of the EYE Film Museum in Amsterdam), author and curator Ralph Eue, Klaus Kreimeier, film scholar Prof. Dr. Vinzenz Hediger (Goethe University Frankfurt), film historian and author Dr. Olaf Brill, and film restorers Julia Wallmüller and Anke Wilkening.

Partners

The University's prime location gives it access to a broad network of collaborators and partner institutions in both the Brandenburg area and the neighbouring capital Berlin. The connection to Filmmuseum Potsdam sets the program apart from others which are offered by separate entities (higher education establishments and film heritage institutions) working in close collaboration e.g. the partnerships between the Goethe University and the German Film Institute or the University of Amsterdam and the EYE Film Museum. External institutional partners, meanwhile, include the online video platform alleskino.de, the German Broadcasting Archive, the Arsenal—Institute for Film and Video Art, the DEFA Foundation, the Deutsche Kinemathek—Museum für Film und Fernsehen, the Cinematheque of the German Historical Museum, Zeughauskino, the Archive of the Academy of Arts, Berlin, and the Cinematheque of the Berlin Central and Regional Library. More recently, institutions based in other parts of Germany have partnered with the program including CineGraph (Hamburg), the Goethe Institute (Munich) and the Friedrich Wilhelm Murnau Foundation (Wiesbaden).

A further, unofficial partner of the program is the Brandenburg Center for Media Studies, a Potsdam-based research institute founded in 2016 by all the higher education institutions in Brandenburg with a media studies focus. With the Film University currently serving as managing partner, and Chris Wahl as deputy director, the Center acts as a support body for media-related research and educational activities including doctoral and post-doctoral research projects,[7] as well as conferences and workshops, publications, and seminars and lectures. Particular attention is paid to the subject of media history and memory culture, thereby creating synergies with the "Film Heritage" M.A. program.

Outlook

Just as the university's aforementioned institutional partners may serve as a stepping stone for future graduates of the "Film Heritage" M.A. program to pursue a professional career in the industry, so too does the Center for Media Studies offer just one possibility for those who wish to pursue further

education and expand their own academic profiles at the Ph.D. level. As of September 2016, the Film University itself provides as an alternative to a regular academic Ph.D. degree in "Media Studies" the possibility to study for an academic artistic Ph.D. degree in "Film Heritage." This unique degree combines a dissertation with a thematically linked artistic research project, the format of which is not restricted. Thus, possible projects for future candidates may include anything from film restoration or reconstruction projects, through found-footage or documentary films, exhibitions or film programs, to interactive multimedia or VR projects, and beyond.

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1   See publisher's website: "Film Erbe," edition text+kritik, accessed August 15, 2017, https://etk-muenchen.de/search/SeriesDetails.aspx?SeriesID=FE1900#.WYn6u4Uvg30

2   See "Regionale Filmkultur in Brandenburg," Filmuniversität Babelsberg Konrad Wolf, accessed August 15, 2017, http://www.filmuniversitaet.de/de/forschung/schwerpunkte-projekte/3-filmkulturerbe/regionale-filmkultur.html

3   The Film University's increasing interest in its own heritage has led most recently to the establishment of an internal task force for developing an optimal infrastructure for the digitization, dissemination and long-term preservation of past, present and future student films.

4   An informal collaboration with the University of Applied Sciences exists from the beginning of the "Film Heritage" M.A. program, allowing for a mutually beneficial exchange between the institutions that compliments their respective programs e.g. students of the "Film Heritage" program participating in courses offered on the University of Applied Sciences' "Conservation and Restoration" program during periods of self-directed study.

5   From the program description on the university's website. For more information, see: "Filmculture: Archiving, Programming, Presentation (Master of Arts)," Goethe Universität Frankfurt am Main, last accessed August 8, 2017, http://www.uni-frankfurt.de/46560655

6   Detailed information (in German) about the current staff, their academic and professional backgrounds as well as their individual areas of specialization can be found at the time of writing on the corresponding section of the Film University's website.

7   Alexander Zöller, a Ph.D. candidate at the Film University whose research focusses on the history of the first German film archive, the "Reichsfilmarchiv," was among the first recipients of grant funding from the Center.

Education Through International Collaboration

The Audiovisual Preservation Exchange (APEX) program

Juana Suárez & Pamela Vízner

Caring for our audiovisual heritage is a shared endeavor. There's no institution in the world that can preserve content by itself, as preservation methods, tools and solutions originate in the community. Likewise, many of the problems that memory institutions face, derive from factors that escape archivists control, such as advancement and obsolescence of technology, culture of production, changes in copyright laws, and similar factors. Financial opportunities, resources and administrative structures vary from archive to archive, and from country to country, and hierarchical structures—when founded in extreme bureaucratic systems—often inhibit open dialogue and collaboration between memory organizations. With these facts in mind, there are not absolute answers to questions that arise, and many solutions are the result of trial and error in different settings where flexibility of infrastructure and collaboration are key to disseminate knowledge to better care for the world's audiovisual heritage.

The Audiovisual Preservation Exchange Program (APEX henceforth) is based on a vision of sharing information horizontally, by involving students, professionals, artists, communities, archivists, and film enthusiasts in an effort to find answers to problems in a collaborative fashion while net-

working and learning from each other. Founded in 2008 by former Associate Director Mona Jimenez, APEX is a project of the Moving Image Archiving and Preservation Master´s Degree program (MIAP) at New York University. APEX encourages international dialogue on audiovisual preservation between individuals, professionals and organizations. The uniqueness of this program lays on the way activities take place: work and conversation always occur during hands-on activities with collections, providing the perfect setting to discover new issues and possible solutions in an immersive educational experience. This is also a unique opportunity for participants to engage in transversal knowledge-sharing, since participants operate as students and teachers at the same time. Some of the collaborative activities that APEX encourages relate to collection management assessment, systems of inventorying and cataloguing, workshops on community archiving, video digitization, digital preservation, and discussions on access.

When choosing the locations for the program, APEX considers how the program can counteract asymmetrical archival structures, and the lack of resources in institutions. In its model of exchange of information, APEX participants get to learn how processes are conducted when conditions are

precarious, and gain a lot from archivists who prove to be resourceful and often self-taught. APEX lectures and workshops emphasize areas of knowledge where there is a dire need of training in the countries visited, such as video preservation, digitization, and digital preservation.

Since 2008, APEX has taken place in Ghana (2008 and 2012), Colombia (2013), Uruguay (2014), Argentina (2009 and 2015), Chile (2016) and Spain (2017). It should be noted that there are efforts in some of those countries to increase academic programs in the area of audiovisual preservation, and to tailor related curricula into exiting information sciences departments. Recently, a "Diplomatura en Preservación y Restauración Audiovisual" (a Certificate in Audiovisual Preservation and Restoration) has been created in Buenos Aires (Argentina); an MA in Administration of Audiovisual Patrimony is under planning at Universidad Jorge Tadeo Lozano in Bogotá (Colombia), and similar conversations are taking place at the Elías Querejeta Film School in San Sebastián (Spain). These efforts are non-APEX related, however the program and the networking it generates has been important for consultation on curricular decisions, target audiences, and projection to academic futures.

APEX has been organized by students led by a faculty advisor and professional mentors since 2013, turning it into a rich learning experience as well as an opportunity to develop international leadership. The upcoming tenth anniversary of APEX provides a special opportunity to assess the achievements of the program and to draft prospective new directions, within the same spirit of collaboration. In what follows, we present a series of reflections resulting from that decade of collaborative work, focusing on the challenges of organizing an educational exchange invested in being productive for the whole archival community, while emphasizing a model that may be replicable in other geographies. We also discuss how APEX results and future projects relate to an initiative to concentrate knowledge and resources into a collaborative digital humanities project, tentatively named *Kamani*.

History and Purposes of APEX

The APEX program (Audiovisual Preservation Exchange) proposes an alternative model for collaboration and a sustainable educational model in subjects related to the safeguarding of the world's audiovisual memory.[1] The program consists on a visit from a team of US based archivists to archives in other parts of the world. The US team is composed of NYU MIAP students, accompanied by one or two faculty members. Preliminary preparation includes extensive conversation with hosting institutions by elaborating a list of tasks to accomplish and designing workflows. Preparation starts four to six months before the exchange by deciding how the MIAP team will combine with local participants, what specific goals would be achieved, and how the projects are going to be executed. Projects are assigned on the basis of skills and preferences of participants, making sure that learning happens both for visitors and locals, and that competence in areas such as film handling, video digitization, digital preservation, and other audiovisual fields is maximized.

APEX also pursues the strengthening of international networks between audiovisual archives, memory institutions (museums, libraries, and *centros de la memoria* in the case of Latin America), community organizations and individual endeavors in the field. It was initially conceived by Professor Mona Jimenez as a cooperation project between the Moving Image Archiving and Preservation Master's Degree program (MIAP) at New York University (NYU),[2] and the Archive of the Institute for African Studies of the University of Ghana.[3] APEX soon found an echo and grounded its roots in several Latin American countries, although the mission of the program remains open to work in other hosting countries, and at the moment there is interest in countries such as Thailand, Serbia, and Kosovo. The second version of the program was organized in 2009 in cooperation with the Museo del Cine Pablo Ducrós Hicken in Buenos Aires. The 65th Congress of the International Federation of Film Archives (FIAF) took place in the same city just days before APEX, an event that facilitated the presence of archivists from all over the world, and

the presence of the NYU team. Between 2013 and 2017 APEX took place in Colombia, Uruguay, Argentina, Chile and Spain, consolidating as a fruitful model for education and exchange in the field.

The program's original and current mission statement is the creation of productive international networking between audiovisual archivists, administrators, educators and students through shared hands-on work. APEX's main goals are oriented towards conservation and preservation of audiovisual collections through horizontal dialogue and communication, fostering an environment where participants share mutual experiences while searching for innovative, resourceful and creative solutions to both administrative and technical problems, related to areas such as collection management (use and implementation of open source software, for example), and best practices in digitization and digital preservation, among other. APEX's spirit of transversal communication and non-hierarchical exchange has been kept throughout its different versions, welcoming work with diverse collections and teams of varied provenance. This has strengthened the diversity of the program and has expanded its reach beyond solely institutional collections or "major" archives, expanding the definition of what can be considered audiovisual heritage. APEX includes materials from personal and family collections, amateur productions, community archives as well as more traditional organizations and established institutions. We define major archives as those often financed with state funding, and fully ruled by State administrative practices, and more commonly identified as "national archives." In the Latin American context, for example, these archives are highly invested in preserving audiovisual patrimony related to national cinemas, and are associated with cultural production that relates to the construction of national identities: Filmoteca UNAM, Cineteca Nacional (Mexico); Cinemateca Uruguaya, Fundación Patrimonio Fílmico Colombiano, and Archivo ICAIC in Cuba are some examples of major archives.

For the purpose of our discussion, it is important to note the asymmetrical relations that they establish with minor archives. i.e. those organized and administered by institutions different from the State,

that gather alternative, individual, community, and underground endeavors. Minor archives may be located in official institutions such as universities, memory institutions, or similar. However, they are often attached to specialized collections of paper, books, and documents that arrive to archives whose main mission of statement is not primarily the safeguarding of audiovisual collections. Because of the significance of these collections, and the important segments of information that they contribute to the history of communities, there is the need to rethink their place in the archival infrastructure in various geographical regions. Actual work in these institutions makes it imperative to think of how digital projects can bridge the gap between big and minor archives. In a paradoxical way, it also invites to reconsider how digital environments, social media and technology may play a role so that we become "participatory archives," a term proposed by Anne Gilliland and Sue McKemmish (2014) in their discussion about the role archives play in regard to human rights, and politics of reconciliation. The authors establish a clear opposition between official records, and a counter-archives that, in a way, myriad the opposition we are establishing here between big in minor archives. In their words, "While these [counter-archives] might be regarded by the archival field as "incidental" or "accidental" archives, they serve as important supplements, counters, or corrections to the records held in official archives." (3)

Many of the minor archives that have participated in APEX have been organized in such incidental way. In many cases, their administrative structure ascribes to the memory institution where they are housed, and one of the remaining challenges is establishing specific managing and governing guidelines related to the handling of audiovisual materials. On the other hand, the counter-archival role that many of these collections play is substantial to political discussions of truth and reconciliation in areas of the world plagued by political problems, in this case Africa and Latin America, exactly where APEX has taken place. The Archivo General de la Universidad de la República (Montevideo, Uruguay), for example, and the archive at community TV station Señal 3 (Santiago, Chile) safeguard im-

portant collections related to the violation of human rights during times or political oppression at periods of dictatorial governments.

The APEX model has encouraged not only international but also local dialogue on both praxis and theory: public organizations have the opportunity to take a leading role as guides and mentors, improve interinstitutional communication and sometimes even get to know the *modus operandi* of minor archives, understand the value of this diversity from all angles: administrative structure, archival holdings, and financing models. Moreover, by encouraging exchange between major and minor archives, APEX expects to give visibility to collections of minor archives, with a subsequent impact on scholarship produced on those holdings. Constant assessment and dissemination of the content of minor archives might invite new approaches of research, and additional interest by academic and independent scholars. By expanding the spectrum of the dialogue and generating inclusion, APEX has allowed the diversification of memory representation, and has yielded conversations on sustainability, and resources. It has also provided new opportunities to promote audiovisual heritage. Some of those activities have been the public screening of archival materials, facilitating dialogue among the participating institutions by closing each APEX edition with symposia, and encouraging participants to be active in local and international professional associations.

Self-assessment and surveys have been important components to reshape APEX. In the last years, a project conducted by Suárez has been crucial to think new venues of action for APEX. That project is entitled "Film Archives, Cultural History and the Digital Turn in Latin America"; it discusses the place of audiovisual archives in shaping the cultural history of Latin American countries.[4] For the project, a general in situ collection assessment has been conducted in major and minor Latin American archives in Colombia, Mexico, Argentina, Uruguay, and Chile. The study compares similarities and differences in policies governing major institutions in order to analyze the administrative forces that currently model archival practices, chief among them the digital turn. This concept is to be understood here as the increased attention and use of new practices in digital environments across a variety of contexts. The digital turn is a result of globalization and the growing range of technologies of communication that has rapidly changed all aspects of filmmaking, production, distribution, exhibition and, of course, storage. Assimilation and transitions to new technologies are processes framed into hegemonic practices of production and consumption that replicate power and domination patterns of more developed over less developed countries. Traditionally, Latin American countries share a history of consumption of technology and are not leaders in the production of it. Most countries are also importers of technological goods. The access to technology varies from country to country and from region to region in each country. The type of industry also marks a difference, as well as the presence of private or public capital.

Over the years APEX and its allies have had the possibility to work with, and assist in the conservation and preservation of analog materials such as film— nitrate, acetate and polyester, small gauge formats such as 8mm, super 8mm and 9.5 mm as well as large formats, namely 16mm and 35mm—magnetic media in many different formats and digital archives including digitized collections and born digital content. These collections have been a starting point to initiate discussions on preservation of both analog and digital elements. Additionally, the collections APEX has worked with consist of a wide variety of content—newsreels, television programs, artistic creations, feature films, documentaries and other.

In summary, APEX is an opportunity to exchange knowledge, skills and solutions to common problems in the preservation of audiovisual archives through dialogue and hands on work with film, video and digital media collections in areas such as identification and inspection, inventory/cataloging, metadata administration, digitization and digital preservation while also considering creative subjects and the value of archival materials as well as acknowledging the multiple purposes archives have for research, audiovisual production and overall education, yet recognizing the value of diversity in both content and archival practices.

APEX: Organization and Structure

Since 2013, APEX has been held annually, funded mainly by the Tisch School of Arts of NYU, with the support of organizations such as the World Cinema Project of the Film Foundation[5] and donations from supporters of archives. This funding structure and the fact that the program is rooted within an educational organization has allowed to establish a sustainable model from the financial and educational perspective. In addition, APEX counts with the support provided by local organizations participating in the project, often materialized in the form of supplies or in-kind support vital for the execution of the activities. There is the expectation that hosts and local participating archives will contribute in one way or another according to their own possibilities and available resources. Likewise, they will be proactive in negotiating local funding and support. For instance, in previous versions, associate hosts have contributed with working spaces, promotion of special events, and some have accomplished partial coverage of costs such as lodging, meals or snacks, archival supplies and/or local transportation. Generally speaking, MIAP and personal contributions cover costs originated outside the host country. Furthermore, APEX's organizing committee does preliminary work, according to the needs and descriptions of host organizations, to get collaboration from manufacturers and supplies companies to obtain donations such as containers, film leader, perforated tape, specific equipment and the like, which can be difficult to get locally, or too expensive to purchase.

Since 2013, the organization of the activities is led by MIAP students, who are guided by a full time MIAP faculty member. Additionally, the program has developed a mentorship system, with the participation of MIAP graduates who have either engaged in or organized APEX in the past, and are already pursuing a professional career.6 This constitutes a unique educational model, where the objective not only lies on developing and strengthening technical skills, but also encouraging administrative and organizational abilities as well as developing leadership. Hence, from the perspective of the MIAP program, giving students the opportunity to organize this type of events constitutes a way of encouraging students' professional development, by helping them to envision and organize team work, plan and fundraise for resources, plan logistics for accommodation and working in a foreign country, and learning how to navigate administrative systems other than those in the United States. Thus, planning with the host institutions is carried out through a small committee led by students with the participation of the professor advisor, mentors and local organizers. As mentioned, the goals and projects to be executed during APEX are determined in collaboration with the host organization (or organizations) and are programmed to meet their interests and needs. From an educational perspective, this also constitutes an opportunity for students to explore their own interests by selecting and organizing projects that are aligned with their research topics, strongest skills, and/or professional goals.

Organization and refinement of each edition of the exchange starts four to six months before the actual dates of exchange and most deadlines and program structures are roughly defined beforehand. This is possible thanks to the experience the program has accumulated over the years, which translates into a fixed administrative framework, yet allowing flexibility and space for testing with new activities and topics. This setting has permitted efficiency and fast responses that reflect in the execution of ambitious projects. In a way, this structure has worked as a syllabus, providing student organizers a framework to work with clear goals. However, it is worth noting that the work performed by students does not correspond to a course in the MA program, and they do not receive grades or curricular credits for their participation.

The flexibility of the program allows the incorporation of additional activities related to the archival field, around specific collections, contents or interdisciplinary work. For instance, in the execution of each edition, APEX has included visits to archives, museums and restoration facilities, workshops, academic conferences, screenings

and artistic performances, just to name a few. APEX is usually carried out in a period between ten to fourteen days during which time the team can work in more than one geographical location in the host country. The work is organized with the participation of two or more local organizations, which is a fundamental requirement for the development of the program since APEX expects to maximize the scope of the exchange as well as to encourage interinstitutional dialogue and collaboration. Groups of visiting participants have been made up between twelve and twenty people, divided into smaller teams once activities actually start in the host country. Each team works with one institution or local organization or in two or more specific projects within one organization. The local participants are generally employees or members of the host institutions, students, filmmakers, artists working with audiovisual materials, local professionals and volunteers. In some occasions APEX has had the participation of professionals from nearby countries.

Language has never been a limitation for the project since APEX has always had bilingual participants: students, professors, and mentors from Spanish speaking countries or with bilingual background as well as bilingual hosts who assist in the tasks of interpreting and translating. The fact that they are also professionals in the field facilitate communicating topics and work with specific field vocabularies proper to the activities. Generally, each APEX closes with an event—conversation, meeting or round table—which allows each team to share the results of the collaborative work, to establish dialogues about issues that emerged over the course of the exchange, and discussions on possible future collaborations, whether international or local.[7] In summary, APEX develops four clear target lines: encouragement of open international, inter-regional and local collaboration and dialogue; collaborative problem solving to common issues in the administration of moving image collections; education on the importance of audiovisual heritage, and creation of professional leadership in the field.

Previous Versions: Lessons Learned in the Educational Arena

After the initial edition in Ghana, APEX has been carried out in four Latin American countries, and its most recent version was held in Cartagena, Spain (2017). As mentioned above, each version has had different specific goals, adjusted to the needs and interests of the hosts. The first APEX edition to adopt this structure was held Bogotá in 2013, organized in collaboration with Fundación Patrimonio Fílmico Colombiano and Proimágenes Colombia, organized by Juana Suárez (MIAP 2013). The work consisted in inspection, repair, documentation and cataloging of heritage film in 35mm, 16mm and magnetic open reels from the *Yuruparí* collection.[8] Additionally, the team held a lecture on digital preservation at the Universidad Jorge Tadeo Lozano and a round table on Colombian amateur films at Cinemateca Distrital de Bogotá. Previous to the exchange, the team organized the repatriation of 16 and 35mm negatives, belonging to the defunct Compañía de Fomento Cinematográfico FOCINE, which were stored in the facilities of Katina Productions in New York since the late 1980s. (Patrimonial rights of those films are currently held by Proimágenes Colombia). Since then, APEX has facilitated networking that has allowed the digitization and restoration of 765 audio tapes and the following adjudication of a grant from the International Federation of Television Archives (FIAT) to Proimágenes—current owner of the collection and rights holder—to preserve six of the documentaries of the *Yuruparí* series. In APEX 2013, work teams were led by recent graduates, making clear that such structure had the potential to strengthen students' skills, providing them with valuable tools to step into the professional world. In that new structure, graduates could serve as guides or mentors.

In 2014 APEX traveled to Montevideo, Uruguay, organized by Pamela Vízner with Suarez's mentorship. Main collaborators were Universidad Católica del Uruguay—with Professor Julieta Keldjian as main organizer and coordinator *in situ*—SODRE Archivo de la Imagen y la Palabra, Fundación de Arte Contemporáneo (FAC), Cinemateca Uru-

guaya and Archivo General de la Universidad de la República (AGU, UdelaR). In that edition, the teams worked with film (16mm and small gauges) and or the first time with analog magnetic video (U-matic, VHS and others), focusing primarily in collection assessment and development of proposals to improve storage conditions, handling, cataloging, digitization and digital preservation.

The participation of Fundación de Arte Contemporáneo encouraged activities that used film medium as a creative element. A session of image handling during projection and found footage manipulation was organized as a public performance and exhibition. This new edge brought to the program an interesting interaction between the archive, users and communities, positioning audiovisual heritage as a living element in constant transformation and repurposing. This opportunity reinforced APEX's intentions of creating participative and interdisciplinary communities around media, encouraging dialogue among archives professionals as well as researchers, users and general public.

In 2014, APEX formally introduced professional leadership as a formative goal through the organization of public workshops on film, video and digital preservation, taught by MIAP students. Also new to the program was a closing round table where participants presented the results of the exchange. That meeting was the preamble of what would turn into the *Mesa Interinstitucional de Patrimonio Audiovisual* (the Interinstitutional Group for Film Preservation in Uruguay), a cluster of organizations that currently collaborate to optimize resources for preservation.[9] Since then, every APEX closes with a seminar or roundtable which main goal is to establish future collaboration, paths for exchange, preservation projects, screenings, participation in conferences, formal and informal education, and similar activities.

The following year, Museo del Cine Pablo Ducrós Hicken in Buenos Aires welcomed APEX again, this time with the participation of the public TV Station Canal 7. Four teams worked with nitrate and acetate collections of 35mm film at the Museum. Staff members shared their expertise with other participants in the handling of nitrate films.

Due to its fragility and volatility, and to the fact that it demands specific safety practices, it is uncommon for many archivists to work with nitrate base. This is one of the best examples of horizontal education in APEX, where staff members shared expertise with APEX participants in a horizontal collegial relation, rather than in a hierarchical north-south order. In the same vein, working with Canal 7's 2" Quad tape collection provided a perfect scenario to talk about video restoration and cleaning, thanks to the contribution of their team of engineers and the participation of Jim Lindner, expert in video preservation. Same as the former year, APEX finalized with a symposium organized in collaboration with NYU Global Site in Buenos Aires and partially supported by the US Embassy in Argentina. Colleagues from Chile, Uruguay and Bolivia joined APEX 2015, making evident APEX continuous strive for interaction between former and current participants. The idea of recurrent participation was brought up in Uruguay during the round table.

The Audiovisual Archive of the Chilean National Library[10] and the community TV station Señal 3 from La Victoria[11] hosted the 2016 edition of APEX in Santiago, Chile. Once again, the work centered on film and video, this time with a strong focus on digitization techniques and technologies. In this edition, the teams developed a prototype of telecine for small gauge film and built a video digitization station. These two projects turned the archive into a classroom, where participants were able to observe and participate in the construction of both stations, becoming involved in the planning and execution of the digitizing units. In addition, the organization of a Community Archiving Workshop allowed teams to actively engage people from the community in the preservation of their own heritage.[12] These acquired skills and tools and the democratization of archival knowledge empower communities to undertake self-managed preservation projects that break with the traditional hierarchical and asymmetrical structure that often rule the safeguarding of audiovisual memory. This unequal structure became evident during the closing seminar: Señal 3 director Luis "Polo" Lillo expressed his concern for the

distance that they (as a minor archive) experience between established institutions and community organizations, especially regarding the uneven representation and definition of what constitutes national memory.

In 2017 APEX was held in Cartagena, Spain. Salvi Vivancos from Memorias Celuloides,[13] and Clara Sánchez-Dehesa from Red de Cine Doméstico were the main organizers in an edition that extended to work with the Archivo Municipal de Cartagena.[14] In this opportunity—although APEX continued working directly with collections—the program had a strong educational component materialized in the form of public workshops. Likewise, the students organizing this APEX proposed and designed an itinerant video digitization kit that was used for open demonstrations, and it is expected to be taken to future APEX editions. Activities were extended to Archivo de Murcia, and Filmoteca de Murcia. In addition to the now standard closing symposia, the program came to an end with an exchange with the Department of Journalism, Documentation and Audiovisual Communication from Universidad Carlos III de Madrid, and a curatorship program of moving images from participant countries, and that have been saved in collaboration with APEX through the last ten years, screened at the emblematic Filmoteca Española.

Mid-term Plans, Impact and Results

One of the mid-term goals of APEX is to establish international collaboration networks to gradually develop after the conclusion of each visit. The creation of a strong professional audiovisual net is of extreme importance not only for the structure of the model, but also to expand the long-term impact of the project so that participants—from both host institutions and visitors—may engage in independent cooperative projects outside the APEX framework. In other words, APEX acts as a catalyst, facilitating the creation of these links, but not always serving as an executor. The idea is to break those traditional dependency ties generated by structured educational programs and traditional hierarchical archival structures between

major and minor archives. Thus, professionals, organizations and communities can be active in the creation of their own definitions of archives, archival holdings, memory and heritage.

So far, these connections between diverse archivist communities have resulted in activities such as collaborative preservation and digitization projects, team presentations in professional conferences, internships, and archival screenings. A public lecture on digital preservation by Howard Besser in APEX Bogotá (2013), attended by staff from different institutions ; a closing round table among participant institutions in APEX Montevideo (2014) that provided the seed for the creation of the already described Mesa Interinstitucional para el Patrimonio Audiovisual, and a series of workshops organized by the Red de Cine Doméstico with the support of Archivo Municipal de Cartagena are some examples of activities that have promoted exchange between major and minor archives. Among these collaborations, it is also worth highlighting the recent participation of members of the APEX community in professional events such as the annual conference of the Association of Moving Images Archivists, AMIA, having a strong presence in the committees for diversity, education, advocacy and international outreach.[15] In the same vein, APEX has facilitated their participation in events such as the Orphan Film Symposium, organized by NYU MIAP, for the presentation and screening of audiovisual archival projects.[16] Based on the collected experience, and taking advantage of the leadership and visibility of the program, some participants have been effective in proposing positive changes in organizations such as the International Federation of Film Archives (FIAF),[17] to promote more dynamic and productive conversations, and attention to minor archives. This is a contribution not only to diversity, but also an invitation what is it that those professional spaces consider "diversity."

The upcoming tenth anniversary of the program in 2018 sets a great opportunity to assess both methodology and results of a decade of work, and to project to the future. The plan is to take APEX to Rio de Janeiro, Brazil during the first two weeks

of June, and to work in collaboration with five different archives. To celebrate the anniversary, APEX 2018 is planning to start with a summit that brings together members of the APEX community to present accomplishments of the different editions of the program, assess achievements, and propose mid and long-term actions to secure endurance of the project. At the same time, it will be an opportunity to open the debate in relation to the state of the art of the audiovisual preservation field and its visibility in the Latin American region as well as other subjects such as state of archival facilities and available equipment, conservation of analog materials, digitization efforts and digital preservation.

Considering that most APEX editions have taken place in Latin American countries, there is an awareness that we need to increase work with indigenous and Afro-descendent communities who only in recent years have moved from having their archives showcased in hegemonic curatorial practices, to self-organizing and community archiving.

Long-term Goals: Expanding APEX Networks and Educational Outreach

A long-term purpose for the APEX project is to create a system that allows frequent expansion and updating of content and educational resources while at the same time facilitating a needed dialogue among archives professionals, collaborations north/south, local and global. The materialization of this goal is currently planned through the development of a digital humanities collaborative project, unfolding from Suárez's research on Latin American archives. That project consists of an online platform that will feature panels where people invested in exchange of information on archival practices as a goal will have the opportunity to participate. This includes archivist, activists, filmmakers, researchers, artists, graduate students in information sciences and/or archival programs, people working with orphan films, collections, and similar. Participants will sign up with an email, and commit to a common set of guidelines, and a code of conduct oriented to civilian and productive participation. The pan-

els will include information about participating institutions and archives (if registered as such); a directory of participants; a panel to explore ideas and current discussions in the world of archives; a section on ongoing initiatives that will allow featuring projects at different places; a section on online resources; and a section to centralize funding opportunities. Additional features will be added by periodic assessment, according to needs suggested by users.

This is not the place to discuss to extent a definition of digital humanities. In broad terms, we use it here as the application of computational technologies to facilitate teaching and learning in the field of the humanities, and in this case the arts. In that regards, this project is fueled by the possibilities that the internet offers, yet considering that we do not take for granted access to the internet across the planet. Rather than encapsulating our efforts in every APEX version as a one-time event, this collaborative digital humanities project envisions an environment where APEX is one more piece of a bigger frame, thus facilitating the establishment of more robust and long-lasting professional networks, and subsequent exchange. From an educational perspective, students and emerging archivists are essential to developing digital humanities collaboration. In order to connect and expand not only Latin American archives but archives around the world, there is the need to create a path for students to engage globally with archivists and establish international communication and relationships to diversify experience and strengthen the archival community.

The model of cooperation, mutual exchange and transversal education that APEX proposes - and thus far the project has executed - is invested in another hierarchy of knowledge, and in promoting a symmetrical dialogue. That same structure should reflect in the digital humanities project. For a title, it has tentatively adopted the word *Kamani*, which is Aymara language for "communal obligation/responsibility for the cultivated field." The project is conceived with the understanding that the digital turn is another manifestation that illustrates how cultural institutions are shaped by globalization, and the acceleration of exchange.

Kamani is a digital humanities tool that will take advantage of the internet to provide an online platform where members of the community at large can exchange ideas and information without the influence of the power structures that normally inhibit participation. This research is conceived in the spirit of capitalizing community, curricular, and professional endeavors, inviting to rethink our role as educators and archivists in the twenty-first century as well as in the different directions knowledge can flow. It is rooted in our firm believe that diversity is not only about race and ethnicity, but also about gender, social class, education, and age (the generational gap is conspicuous in administrative models in Latin America), among other. It is also based on awareness that privileged mobility entails a sense of responsibility.

The conception of *Kamani* has benefited not only from APEX presence in Latin America, but also from contributions from Latin American colleagues in archival symposia in the last three years, and the current interest of FIAF and Latin American major and minor archives in this project. Hence, the project gathers concerns from colleagues both sides of the border that there is a need for a moderated dialog among Latin American archives, conversations north/south, and the need to centralize a platform of exchange.

Transportability would be one of the most salient characteristic of the project as it can be replicated in other contexts. For example, the model could be adapted in African, and Asian, Eastern European countries, or at least inspire another kind of virtual fluid exchange.[18] Likewise, colleagues and students interested in similar models but at minor scales may be able to address regional or more local initiatives following this path. For example, those wanting to work on the US/Mexico border, interstate collaborations between different communities, collaborations among universities, and so on. The advantage of a digital humanities collaborative project is the Internet, its promise of connectivity and the multiple interlink possibilities it offers. This can help connecting with the many US and European projects that already exist in the field such as the European Film Gateway Project [21].

Some of the topics in which archivists, scholars and students could get involved are access to materials, comparisons and solutions of intellectual property rights from context to context, tool development, digital libraries, data mining, born-digital preservation, multimedia publication, visualization, Geographical Information Systems (GIS), recording tricks of the trade from senior archivists and making them active knowledge in everyday practices, technology for teaching, and learning, sustainability models, creation of shared-online catalogues, and many other need of humanities scholarship.

Obviously, *Kamani* will need mentorship, coordination, local leadership, consensus, and continuous digital stewardship to prevent it from becoming one of those projects that Aldeheid Heftberger criticizes because they have been reduced to "discussing new ways to of publishing scholarly articles or to demarcation within the field (traditional versus digital humanities) and prolonging the familiar debate of quantitative analysis versus hermeneutical tradition." (151) Likewise, it is a project that will need teamwork to locate funding, and advocacy to protect its functioning. It will need a moderation system where individuals from different countries take turns at monitoring content, updating information, and encouraging participation. Because of this collaborative structure and the requirement of diverse participation, *Kamani* will not be able to function in isolation. Interaction with other projects in the same vein such as APEX will be fundamental for the success of such initiative as they will continue to feedback from one another.

Kamani will be an open process that offers the possibility to join the conversation and APEX will strengthen it and nourish it. Eventually, it will have to promote a strong frame of "train the trainers" in the aim of sustainability, and ultimately students will be those trainers. Exchange is the foundation for change. The interdisciplinary nature, the hands-on approach seeks to expand networks of participation, modes of access, and mechanisms for the dissemination of knowledge and scholarship for the benefit of the world's audiovisual heritage.

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Endnotes

1   For a complete overview of what the scope of the program, goals and history, please visit the APEX Website, https://tisch.nyu.edu/cinema-studies/miap/research-outreach/apex (accessed January 9, 2017).

2   Information about the NYU/Cinema Studies' Moving Image Archiving and Preservation program is available at https://tisch.nyu.edu/cinema-studies/miap (accessed January 9, 2017).

3   In addition to the NYU site, specific information on this first version is also found at the APEX Ghana Website, www.apexghana.org (accessed January 9, 2017).

4   This was Juana Suárez's thesis prepared as partial requirement for the degree on Moving Image Archiving and Preservation MA, NYU (2013). At the time, Suárez proposed a toolkit as a possibility of collaboration among archives. That has moved to the collaborative digital humanities project we describe later in this discussion.

5   Information on the World Cinema Project and their commitment to the safeguarding of audiovisual patrimony is available at Film Foundation, World Cinema Project Website, http://www.film-foundation.org/world-cinema (accessed January 9, 2017).

6   Priority is given to NYU MIAP students; however, some versions of APEX have included students from UCLA-MIAS, the L. Jeffrey Selznick School of Film Preservation in Rochester NY, and the University of Wisconsin in Madison. In 2015, the program was supported by a team of archivists from different US institutions.

7   A complete overview of the activities that the program has carried out, and the kind of collaborations established in each host country is documented at the website of the program, with videos and a gallery of images: https://tisch.nyu.edu/cinema-studies/miap/research-outreach/apex

8   The *Yuruparí* television series consist of ethnographic documentaries made between 1983 and 1986 centered in Afro-descendant and indigenous cultures in Colombia. With further consulting from APEX participants, the project received a Save Your Archive grant from the International Federation of Television Archives (IFTA-FIAT) that yield the beginning of digital restoration of the 64 documentaries.

9   The Interinstitutional Group for Audiovisual Preservation is an initiative of several memory organizations and archives in Uruguay that brings together support and efforts to help preserve the country's heritage. The first film preserved through this initiative is *Eclipse Solar de 1938,* a 35mm nitrate film that documents the study of a solar eclipse in the country. More information in Spanish here: http://www.universidad.edu.uy/prensa/renderItem/itemId/40416 (accessed January 9, 2017).

10   The Chilean National Library produced a video to document APEX 2016, available at https://vimeo.com/169909738 (accessed January 9, 2017).

11   La Victoria is an emblematic working-class neighborhood in Santiago, which originated after a land occupation by people who lived in a misery belt. La Victoria has a history of political activity and resistance, especially during the Augusto Pinochet's dictatorship (1973-1981). Señal 3, the community TV Station, was officially formed after the return to democracy, when neighbors found their voice through independent programming to fight under and misrepresentation by current media.

12   The Community Archiving Workshop (CAW) is an initiative supported by AMIA which intends to help independent or small organizations to jump-start an archiving project with the help of professional archivists and local volunteers. More information on their website: http://communityarchiving.org/ (accessed January 9, 2017).

13   See information on Memorias Celuloides at http://memoriasceluloides.medusamediacion.com/ (accessed January 9, 2017).

14   Funded by the city goverment, the Archivo Municipal de Cartagena is the historical archive of the city, holding impressive documents of one of the oldest Spanish cities. Their work with audiovisual collections is very recent, making APEX a great opportunity to make decisions on planning and projecting. See the archive site at http://archivo.cartagena.es/ (accessed January 9, 2017).

15   See AMIA website, www.amianet.org (accessed January 9, 2017).

16   See Orphan Film Symposium Website at www.nyu.edu/orphanfilm/http://www.nyu.edu/orphanfilm/ (accessed January 9, 2017).

17   See FIAF Website at www.fiafnet.org (accessed January 9, 2017).

18   Although the initial focus of the digital humanities project will be Latin America, this model can be easily expanded and/or replicated in other regions of the world.

Learning from the Keepers
Archival Training in Italian Cinematheques

Rossella Catanese

This piece wishes to offer a historical overview of the pedagogical opportunities that have arisen in Italy in the field of film preservation and archiving. The aim of this overview is to offer a concise discussion of the development of moving image archive education in Italy, as this has seldom been discussed in great detail in anglophone scholarship. In this contribution, I wish to summarize a few experiences that concern some of the main Italian educational and archival institutions as case studies, emphasizing the role of such initiatives and co-operations within the history of film archiving in Italy. In fact, I think that these experiences will introduce properly the pedagogical opportunities within the field of cinematheques in Italy. The recent expansion in Italian graduate programs dedicated to film preservation is contributing to empower the increasingly high interest in archival and preservation practices. A broad range of national institutions are involved in these programs, and even if international collaborations are not standard yet, the network of educational and archival institutions is currently strong.

Thus, I would like to highlight the importance of being acquainted with the institutional history and development of film archives, since they have a pivotal role in shaping the history of cinema. Audiovisual archives preserve moving images as cultural memory items, and help valorize films and media as works of art and historical proofs. In fact, in my opinion, an alternative film history could be written by those institutions that collect, restore, inve-stigate and conserve audiovisual heritage. As film scholar Marie Frappat has argued, the film archive is included

> dans un discours implicite sur l'histoire du cinéma: tentée par l'idéal de l'exhaustivité, elle se retrouve toujours confrontée à la réalité du manque et à la nécessité du choix, et ses méthodes de classement et de cataloguage sont toujours représentatives d'un discours et d'une certaine approche de l'histoire du cinéma (Frappat 2006, 21).

This archival field has considerably changed in recent years, thanks to the widespread awareness of audiovisual heritage and its policy. Furthermore, many remarkable technological developments have had a dramatic impact on cataloguing, preservation, and accessibility. Currently, film conservation practices have a systematic, academic, and ethical framework, since films require suitable policies, due to their structural fragility.

Nevertheless, this path has been longer than expected. Many countries could testify to a different experience; for instance, in Italy, wide access policies have not always been the standard for film archives. The question pointed out by Edmondson, "Is Film Archiving a Profession?" (Edmondson 1995), in Italy has not received an exhaustive answer until recently. This may depend on a misunderstanding on the relevance of film heritage. Of course, according to Walter Benjamin, photogra-

phy and cinema are art forms subject to technical reproducibility, and in Italy the approach of Benedetto Croce's idealistic aesthetics has prevailed for a long time, i.e. celebrating the artist's poetic intuition against the technological process which devalued the aura of images (Hill & Minghelli 2014, 9). Furthermore, Italy's overflowing visual environment, filled with artworks, has shaped the conventions towards mass culture in terms of axiological judgment about the value of film artifacts. As a consequence, the conservation of film heritage has always been acknowledged as subaltern to the traditional cultural heritage's preservation priorities, which have been more respected by the governmental institutions.

The first Italian academic courses on Film Studies were established in the 1960s. In 1961, the first university course on the history of cinema was instituted at the University of Pisa and taught by Luigi Chiarini; then, in 1965, Mario Verdone and Pio Baldelli became the first scholars who received teaching qualification for the subject of Film History and Critique in Italian universities. Before that, cinema had not been included among the major arts studied at the Italian universities, in spite of its huge success during the golden age of Neorealism, when Italian cinema gained widespread recognition worldwide, due to its strong ethic and educational purpose (Marcus 1986). In Italy, the academic acknowledgement of cinema followed an international tendency in the 1960s which saw the establishment of Film Studies through the foundation of university study programs concurrently with a change in the underpinning attitudes of cinema's production framework: for instance, in the 1950s Hollywood productions turned cinema into a more independent artistic attempt, and the French *auteur* theory affirmed film as the product of a director's artistic vision.

Even though the film archives had already been institutionalized in the first half of the twentieth century, it was only in the 1980s, after the UNESCO Belgrade conference (UNESCO 1980), that film was actually recognized as significant cultural heritage, rather than just a commercial product. Nowadays, the recent transitions in the media landscape, due to the current digital revolution, have brought films' consumption and film heritage towards the attention of a wide audience, and Italy is no exception. The digital era creates a new technical basis for a whole range of projects aimed at opening up audiovisual archives. Before considering the digital transition in the Italian context, I would like to first offer a brief historical overview of the foundation and histories of film archives in Italy.

Film Archives in Italy

According to Italian law, film archives can generally be defined as places dedicated to the preservation and transmission of knowledge, where films and non-film materials (books, documents, photographs, props, apparatuses or other cultural artifacts) are preserved, collected, and maintained for use. Preservation and access are at the core of the institutional purposes; nevertheless, film scholar Gian Piero Brunetta provocatively states:

> Italian film archives are like parallel lines: they never meet (...) in the absence of public catalogs, a policy of common service, but also - of course - of adequate subsidies. Just a few historians have had access to a catacomb space of conservation, and have been able to uncover by themselves the small coffins of unidentified Italian silent films; they speak of an experience very similar to that of Poe's stories and films by Mario Bava (Brunetta 1981, 47).[1]

The creepy landscape of Italian film archives ironically described here sounds as entertaining as a venturesome gothic novel, but the goal of this portrait was to emphasize the issues of limited accessibility that characterized the institutions that were supposed to guarantee citizens' engagement. A critical outline of the slow establishment of scholarly–archival collaborations in joint efforts with educational institutions is crucial for understanding the range of pedagogical strategies and experiences which form the foundation for today's training in moving image archiving education.

The history of Italy's archival institutions has been accurately described in Marie Frappat's *Cinémathèques à l'italienne: conservation et diffusion du patrimoine cinématographique en Italie* (2006) and is a good reference point for offering a critical outline. Just like the major *cinematheques* in the world, film collection in Italy also emerged and gained momentum in the 1930s, when "cinema came to occupy a different position for the nation-state" (Hagener 2007, 78), since after the introduction of sound

technology, the archival institutions defined the symbolic universe represented by cinema as the place of the national identities. In 1935, Galeazzo Ciano (head of Ministry for Press and Propaganda, later Ministry of Popular Culture) and Luigi Freddi (head of General Management for Cinematography) founded the Centro Sperimentale di Cinematografia in Rome, the oldest film school in Western Europe. It was a special educational institution established in Italy with the aim of teaching film directing and cinematography. Freddi and Ciano appointed Luigi Chiarini as director, who gathered a small archive of films used for teaching purposes. The small students' collection, which this appointment resulted in, would later become the current Cineteca Nazionale. During the Nazi occupation of Rome, in 1943, the Germans requisitioned and dispersed the original collection, but in 1949 the Cineteca Nazionale was instituted by the State as the central archive devoted to safeguarding and promoting Italian film culture, following a legal deposit model which prescribed that a copy of each film produced in Italy should be deposited in this collection. Consequently the collection grew bigger, and more than 50,000 films have been kept, preserved and made available for circulation by this institution. Its library, dedicated to Luigi Chiarini, the archive's first manager and founder of the seminal film studies journal *Bianco e Nero*, is a very well-stocked collection of books and the major collection on the field in Italy. Since 1997 the Cineteca Nazionale has become a private foundation with State participation under the Ministry of Cultural Heritage.[2]

Rome is also home to another important film archive: Cinecittà Luce, which is the merger of Cinecittà Holding and Istituto LUCE (L'Unione Cinematografica Educativa). Founded in 1924, LUCE was the first state film company in Europe. It was mainly focused on documentary production, with a huge collection of newsreels and documentaries from its early days. Since Cinecittà Luce owns the rights to the newsreels held in its vaults, there are no copyright issues related to digitizing and sharing its materials on the Internet. Both the section named Archivio Luce on its website and Cinecittà Luce's channel on YouTube portal contain thousands of meters of film stock scanned, restored and uploaded. To this day, Cinecittà Luce remains a state-funded company intertwined with the Ministry of Culture.

Since its foundation in 1947, the Cineteca Italiana, the film archive of the city of Milan, has contributed significantly to developing the conservation and valorisation of their film heritage through a broad range of activities in the artistically and economically vibrant city of Milan. It was founded by a group of cinéphiles and intellectuals—among whom Luigi Comencini and Alberto Lattuada who would later become important directors in their own right (Casetti 2005)—who shared a deep passion for film and started their adventure by preserving a stock of flammable films. Loosely based on the story of the Cineteca Italiana's founders, Comencini's film *La valigia dei sogni* (1953) described a cinema lover's quest to preserve and present silent films, as well as his sacrifices for the promotion of films' educational goals. Cineteca Italiana was a private association which became a foundation in 1996.

The Museo Nazionale del Cinema (National Cinema Museum) was founded in 1958 in Turin, by scholar and collector Maria Adriana Prolo, director Giovanni Pastrone, screenwriter Arrigo Frusta, and critic Mario Gromo. In July 2000, the museum's collection was moved to the Mole Antonelliana in Turin, the most symbolic building of the city's identity, which has also become one of the most visited museums in Turin. The museum's uniqueness is highlighted by the building's spiralwise layout, and on the rare and precious material which is kept in it. This comprises an astonishing breadth of film related materials which form the basis for an archaeological view of the media of film: film props, apparatuses, photos, posters, film memorabilia, silent and sound films etc., with a strong emphasis on films shot and produced in Turin. The Bibliomediateca Mario Gromo is one of the most influential centres of documentation on cinema and photography in Europe thanks to the legacy of Mario Gromo's holdings, the well-known writer and critic for the Italian newspaper *La Stampa*, to whose memory the library is dedicated. The Museo del Cinema was transformed into a foundation in 1991, the year of its main founder's death.

Another very important institution in Italy is the Cineteca di Bologna, created in 1963 as a municipal institution, deeply rooted in the Bolognese local culture, and at the same time devoted to an international network. Since 1989 the Cineteca di Bologna is member of the Fédération Interna-

tionale des Archives du Film (FIAF) and of the Association des Cinémathèques Européennes (ACE). Its yearly festival, 'Il Cinema Ritrovato,' is one of the central events for scholars in the field of film heritage and film restoration worldwide, but also for all kinds of audience, since it includes sections dedicated to kids and entertainment. Thus, the Cineteca di Bologna holds a large film and non-film collection, including a rich library, and promotes exhibitions and workshops. Moreover, its building is located very close to the University of Bologna's department of Performing Arts and Communication Sciences, ensuring a strong connection with the city's educational institutions. Its library, dedicated to Renzo Renzi who was among the founders of Bologna's Commissione Cinema, supports the idea of the cinematheque as a public research centre. In 2012, the archive became a private foundation.

Gemona, a small town of the north-eastern region of Friuli-Venezia Giulia, has hosted the Cineteca del Friuli since 1977, following the 1976 earthquake that destroyed the region. From the ruins of the catastrophe, the film club Cinepopolare has given to the citizens a message of hope and re-birth through cinema. In 1985, the film club became a proper institutional film archive, and is currently among the five major ones in Italy. Furthermore, it is a FIAF member since 1989. The film collection has grown extensively over the years, including both fiction and documentaries, but also small format films. Since 1982, the Cineteca del Friuli organizes a very important festival in Pordenone dedicated to silent films: 'Giornate del cinema muto,' one of the most highly profiled events in the field.

Many other regions and local entities have established proper audiovisual heritage institutions, such as Sardinia, Tuscany, Apulia, Sicily, Calabria, and others. There are also other archives devoted to specific kinds of collection, such as the materials held by Home Movies (Italy's Amateur Film Archive) in Bologna, or those dedicated to performing arts, held by the Archive of the Spectacle, kept by Centro Teatro Ateneo at Sapienza University of Rome, just to name a few examples. Following this overview of the emergence of film archives in Italy, I will now focus on the institutionalization of moving image archiving education at Italian universities and the interrelations between universities and archives.

Archival Training: a Network of Institutions

Film archives promote the spread of film culture but, first of all, encourage and secure the correct practice for the conservation and preservation of their acquisitions, in order to prevent the chemical and physical decay of the delicate elements they safeguard. As film archives have grown and developed, a strong need for them to find qualified personnel has emerged in order for them to cope with all the complex tasks required. Very often, one of the best ways to cultivate professional skills is to offer traineeship opportunities, which allow potential employees to work with experienced staff. In the early years of film preservation, this was informally arranged between a film archive and an intern, whereas archival apprenticeship today is increasingly university-based and nurtured by the many recently founded programs which aim at developing professional skills in moving image archiving.

In Italy, one of the most well-known academic centres for film restoration that works closely with various film archives is the laboratory La Camera Ottica at the University of Udine's department in Gorizia. La Camera Ottica is dedicated to film and video preservation and restoration and shares its facilities with the lab CREA (Center of Researches and Audiovisual Processes), which is committed to digital production and post-production. La Camera Ottica has specialized equipment, and is run by a highly skilled team, with a thorough historiographical, methodological, and technical knowledge of film, covering a broad range of different materials, including small formats, experimental cinema, video art and amateur filmmaking. The lab occupies a central role in all of the University's educational activities related to moving image studies and forms the basis for the expertise developed by the students engagement with it. Adding to this expertise is the research of several international doctorate projects, which rely on La Camera Ottica, contributing fruitfully to the University's training in audiovisual archiving and restoration. The international character of these projects as well as the many internship programs arranged and promoted by regional fundings have also helped to open up a wide range of job opportunities in both national and international settings.

Between 2010 and 2016, one of the primary academic courses to offer a full master's degree almost

uniquely devoted to moving image restoration—in combination with postproduction skills—is the Italian-language M.A. in Restauro Digitale Audio-Video organized by the Sapienza University in Rome in collaboration with the laboratory of the research centre Centro Teatro Ateneo. Thanks to the organisers' keen commitment, the program has successfully established collaborations with the Cineteca Nazionale, the ICRCPAL (Istituto Centrale per il Restauro e la Conservazione del Patrimonio Archivistico e Librario), Cinecittà Luce, and with L'Immagine Ritrovata in Bologna, a state-of-the-art laboratory which works closely with the Cineteca di Bologna, and has been operating in the film restoration industry for over 20 years. The Digital Audiovisual Restoration M.A. is organised by Desirée Sabatini and comprises theoretical and technical classes with academics and professionals in the field, and has a laboratory for developing technical skills. I collaborated with this program in coordinating and developing internship programs for its student interns. For their internships, we could offer the students a good number of projects at Italian and foreign partner institutions, including both cinematheques and labs. Among the institutions abroad we have collaborated with include the George Eastman House in Rochester, New York, the Österreichisches Filmmuseum in Vienna, the Cinémathèque Royale de Belgique in Brussels, CNC–Archives Françaises du film in Bois d'Arcy, EYE Filmmuseum in Amsterdam, La cinémathèque de Toulouse, Filmoteca de Catalunya, and, very recently, Cineric in Lisbon. In Italy, we have mainly worked with the Cineteca Nazionale, Cinecittà Luce, L'immagine ritrovata and Augustus Color, while also occasionally collaborating with other Italian institutions and labs, such as La Camera Ottica in Gorizia and the Home Movies archive in Bologna. Each internship was supervised by the coordinator and I, and everything was registered through a portal, provided by the Lazio Region, designed to cover the interns' work insurance policy costs involved for the host institution or company. All these connections guaranteed several traineeship opportunities, in which students cooperated directly within prestigious preservation and restoration projects. Unfortunately, the CTA was shut down in 2016 due to a judicial lawsuit with the central administration of Sapienza[3], without current plans to reactivate, leaving a gap in the landscape of moving image archiving in Italy.

Since 2002, the Università degli Studi di Milano and the Cineteca Italiana have developed a program of scientific cooperation, under the supervision of professor Elena Dagrada and the general manager of the Cineteca Italiana, Matteo Pavesi. The aims of this scientific cooperation are to study, spread, and conserve cinema heritage. In particular, the agreement encourages the development of collaborative research projects by making archival materials held at the Cineteca di Milano available to teachers, researchers, PhD students, and graduate students of the university, following a detailed set of rules for access. In return for providing access for research purposes in both national and international projects, this agreement helps the Cineteca Italiana in cataloguing and analyzing its film material and thus contributes to the enrichment of its holdings. This collaboration also entails the Cineteca Italiana's participation in the University's teaching activities, announced through detailed syllabi well in advance. Furthermore, in 2014, the University of Milan successfully applied for funding from the Lombardy region for a valorization project on regional cultural heritage.[4] The project—submitted with the working title "Innovative methods and practices for the safeguarding and valorisation of film funds: The Carlo Pozzi fund in Sesto San Giovanni municipality, financed by Lombardy region" and carried out between November 2014 and November 2015—was coordinated by Dagrada, who was the supervisor and scientific manager of the project. This project has fostered follow-up research opportunities and projects, which allowed for developing additional expertise on the technical interventions necessary for preserving, digitizing and cataloguing the film elements researched (35mm and 16mm, and/or digital) and non-film material (paper, photographic, and audio elements). Consequently, the reconstruction activity, the study of historical memory and anthropology nurtured by these research activities have opened exciting new avenues for the researchers involved, and will further contribute to engaging citizens with the outcomes of this research, through a series of presentations and planned events.

In Turin, the university and the Museo Nazionale del Cinema have been collaborating for many years. This collaboration entails the organization of exhibitions and conferences. Both institutions have hosted screenings and workshops on film programming and archiving that were targeted at

students, who were involved in organizing shows, setting up exhibitions, and writing journals. For instance, students have organized specialized programs at Cinema Massimo and Bibliomediateca Mario Gromo. Furthermore, the university and the Museo also published a call for "young programmers" to create events in order to strengthen the ties between the Museo Nazionale del Cinema and the university students and with the aim to involve them in realizing programs, exhibitions, and screenings, which also to some extent experiment with new media.

Having outlined the different programs for moving image archiving education that exist in Italy, one immediately notices several differences. For instance, La Camera Ottica's initiatives and the Sapienza's M.A. share a more international outlook, while the programs in Milan and Turin have a predominantly regional focus seeking to engage the students with its cities' territory. Furthermore, Turin's program is less focused on technological innovation, but rather concentrates on the programming and presentation of the moving image heritage. Conversely, the Milan program aims to develop stronger technical skills, in particular by involving computer labs in the training phase.

In addition to this overview and discussion, it is also worth highlighting the role which educational initiatives organized primarily by film heritage institutions are increasingly beginning to play. In 2017, for the second consecutive year, the Cineteca di Bologna offers eight different courses within its training program "I Mestieri del Cinema" (which can be translated into Film Crafts), supported by the Emilia Romagna region and the European Social Fund, for inhabitants of the region. These courses aim at strengthening the field of audiovisual heritage preservation in the region, seeking to meet a demand for specialized skills from companies in the region. These courses are completely free; they offer a two-fold educational opportunity—both theoretical and practical—which comprises lecturing, project work and internships. Among the courses' partners (film festivals, associations and more), there are ACE, L'Immagine Ritrovata, and two different universities: Alma Mater Studiorum – Università degli Studi di Bologna and Università degli Studi di Parma.

Film archives have also initiated other kinds of apprenticeship programs without involvement from universities, which seek to nurture both methodological and technical skills in order to shape a new generation of film archivists. For instance, since 2007, Cineteca di Bologna has been promoting and hosting the "FIAF Film Restoration Summer School" in collaboration with FIAF and ACE. This summer school is not an academic project, but a primarily a hands-on training program which combines technical and professional development with thought-provoking theoretical classes led by some of the most highly profiled international archivists and professors in the field. The program hosts international participants coming from a great variety of countries and aims at spreading and improving knowledge on film archiving and restoration worldwide, relying on the expertise and infrastructure of L'Immagine Ritrovata and by employing both e-learning strategies and hands-on work of training sessions with restoration professionals. As Frappat highlights, the experience of the Cineteca di Bologna in the field of restoration is internationally recognized thanks to the dissemination provided by the festival, but also by its educational opportunities. As she writes,

> Cette position névralgique s'affirme d'autant plus aujourd'hui que depuis plusieurs années la FIAF Summer School of Film Restoration est hébergée par le laboratoire de L'Immagine Ritrovata où elle organise des conférences quotidiennes sur la question ainsi que des présentations de cas de restaurations. (Frappat 2013, 46).

Conclusion

Thanks to the number and the variety of their activities, the Italian cinematheques have become a hub for cultural and training initiatives, which involve universities as educational institutions. Education and training are also provided directly by the film archives themselves, both at the national and international level. This dialogue among institutions helps carry out innovative research on the conservation of materials and on the history of cinema. At the same time, it helps instruct the new generation of film archivists and film restorers who will take care of the cinematographic heritage, by molding their knowledge through diverse educational programs.

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Endnotes

1   I would like to thank Massimo Benvegnù (EYE Film Institute) for suggesting this citation.
2   http://www.fondazionecsc.it/context.jsp?ID_LINK=115&area=5 . Accessed 01 Nov. 2017.
3   Sapienza University suited the CTA due to issues related to the restoration and intended purpose of its theatre, which the central administration wanted to transform into a conference room. As a protest, the head of CTA resigned and the centre has been closed. The university theatre was founded in 1934, and has hosted shows, seminars and workshops by such names as Peter Brook, Eugenio Barba, Jerzy Grotowski, Judith Malina and others, inside a department which gave rise the first Italian chairs of History of Drama and Theatre. The research centre was set in 1981 and has promoted hundreds of initiatives dedicated to the research of performing arts, plus a video archive with thousands of pieces, including both the video recordings of theatre shows and worldwide experiences between rite and theatre, which influenced European theatre culture. Furthermore, CTA has participated also to the European project ECLAP - European Collected Library of Artistic Performance.
4   http://www.regione.lombardia.it/wps/portal/istituzionale/HP/DettaglioBando/servizi-e-informazioni/enti-e-operatori/cultura/beni-culturali/patrimonio-archeologico-siti-unesco. Accessed 01 Nov. 2017.

REVIEW SECTION

book review

Elsaesser, Thomas. **Film History as Media Archeology: Tracking Digital Cinema.**
Amsterdam University Press, 2016.

Giuseppe Fidotta

What is the place of film studies in a cultural, economic, and academic landscape in which cinema struggles to resist its own obsolescence, let alone to ignore its many reported deaths? This question, to which several representatives of the discipline have attempted to supply some cautious answers throughout the last two decades, has become obsolescent in turn. Extensive reflexivity is already a staple of contemporary film studies as much as of contemporary cinema. According to Thomas Elsaesser, the alleged marginality of cinema—an invisibility due to its ubiquity rather than to its actual disappearance—represents a challenge to be addressed with new tools, for today "cinema is ever more part of life, which is to say, ever more omnipresent, filling not only each available screen but every accessible space" (386). *Film History as Media Archaeology* constitutes a remarkable effort to redraw the borders of film studies, coming from a scholars who for almost half a century has irregularly but profoundly contributed to, if not shaped, a dazzling variety of debates within the field. Divided in six chapters ("Early Cinema," "The Challenge of Sound," "Archaeologies of Interactivity," "Digital Cinema," "New Genealogies of Cinema," and "Media Archaeology as Symptom"), this collection aims at proposing a different archaeology for the cinema, which, while acknowledging the multiplicity and changing functions of the medium, allows the reader to glimpse "a different future out of differently understood past" (66). Faithful to the belief that "cinema has many histories, only some of which belong to the movies" (259), Elsaesser reframes through the lens of media archaeology a consistent part of his writings on film history spanning over eighteen years—the least recent piece being the somehow prescient "Digital Cinema: Delivery, Event, Time" from 1998.

A penetrating general introduction addresses the main theoretical issues of the book, also providing an agenda and a project framework. Media archaeology, in Elsaesser's view, is a means to revitalize film history, reassess its potential for the future ("archaeology wants what it finds to be maintained, defined, and carried forward," 19), and rectify the beliefs of the late New Film History. Three, in particular, are the sites where the exploration of the possibilities of "film history as media archaeologies" are most intensely carried out throughout the volume—that is, early cinema, the digital turn, and moving-image-based art. The first, in many respects the most traditional, elaborates upon New Film History's main assumptions, whose scope is here extended to the point of encompassing cross-media configurations, overlapping and competing technologies, and various alternative "family resemblances." The digital, first and foremost, is a heuristic device and a moment of cultural rupture: Its overnight appearance caused a series of crises

(narrative, representation, causality) that challenged the old-fashioned conceptions of cinema straightforwardly derived from Renaissance perspective, modern optics, and photography, and paved the way to new historiographical models. Media archaeology itself, Elsaesser maintains, should be understood as a reaction to and a symptom of these crises. Nonetheless, it is also a set of principles for ordering knowledge with all the comforts of a professedly anarchical methodology, ultimately covering what perhaps might be considered as "the ideology of the digital" (383). Finally, moving-image-based art—that is, the museum's archaeological impulse in media and installation art—reflects some structural contradictions of media archaeology, such as its dialectical relation with capitalism and technology, the unquestioned fetishization of obsolescence, and its ethical and ecological dimension. Along these lines, original theoretical questions (narrative and interactivity, spectatorship and experience, new media epistemologies, energy and entropy) gain a centrality for media archaeology seldom recognized, while more conventional ones (memory and the archive, the cinematic dispositif, materialism, and the politics of media archaeology) benefit from the fresh perspectives engendered by positing the cinema at the center of this project.

Every essay, in fact, compels the reader to reconsider the relation between film history and media archaeology in challenging, though-provoking ways, even staking out the ground for a more radical reconceptualization of film theory—it is worth mentioning, among the most intriguing interventions, at least "Cinema, Motion, Energy, and Entropy," "Media Archaeology as a Symptom," and "The 'Return' of 3D." Yet, the fragmentary nature of the collection requires an effort of diligence, for not only recurrent themes and ideas surface repeatedly in many essays, but their connotations often bring to the fore the afterthoughts that a twenty-year-long reflection necessarily implies, even though it is the reader's task to trace back these shifts. The meaning of media archaeology, which Elsaesser can claim to have helped define, keeps assuming different shades from essay to essay, as reading the book in chronological order makes quite evident. For instance, in the 2005 pioneering essay "New Film History as Media Archaeology,"

the latter is defined as "nothing more than the name for non-place space and the suspension of temporal flows the film historian needs to occupy when trying to articulate rather than merely accommodate these several alternative, counterfactual, or parallax histories around which any study of the cross-media moving image culture now unfolds" (99). Ten years later, hinting at the extraordinary scholarship on the topic produced in the last decade, media archaeology becomes a "catchword" (351), "a travelling discipline without fixed boundaries," with "no discernible methodology and no common objective" (352), a candidate substitute and supplement for film history. Read against the grain, these shifts reveal a crystallization of the discipline (or the method, or the practice) during the last decade far from Elsaesser's own proposition but nonetheless participating in a vital exchange with it. This makes the reading all the more exciting.

A key aspect running throughout the book but hardly addressed as such is the political dimension of the project, to which Elsaesser points less often than expected, especially since many insights (on industry, commodification, new media technologies, scarcity and obsolescence, and so on) clearly suggest a materialist understanding of the potential of media archaeology. It is a project—and a political one, clearly—that requires broader and deeper outcomes that the applications presented by the book as case studies, since their reach cannot but indicate opportunities for future research, as the author willingly admits in numerous occasions. The seeds, however, have been sown: At the time when both media archaeology and film studies, in their own isolation, look like barren fields, their mutual interdependence might be able to produce a more vivid landscape.

book review

Hollywood and the Great Depression: American Film, Politics and Society in the 1930s. Edited by Iwan Morgan and Philip John Davies. Edinburgh University Press, 2016.

Andrée Lafontaine

The 1930s were a turbulent time in Hollywood. The costly implementation of sound technologies, experimentations with color film, the tug of war with moral crusaders and the PCA coming into its own all contributed—paradoxically perhaps—to the excitement and vitality of the era's best films (as well as the drabness of its "film-by-number" worst). All this occurred in the turmoil of the country's financial crisis, as savings accounts were wiped out and unemployment skyrocketed, placing almost all studios into receivership, and, for the first time, putting the entire industry into question. It is this rich period that *Hollywood and the Great Depression* investigates with its thirteen essays focusing on the era's values and politics (part 1), its stars (part 2), and exemplary films (part 3).

The volume's introduction does a commendable job at succinctly situating the reader in the financial and industrial context of the moment. Iwan Morgan summarizes how the financial crisis impacted Hollywood, how the studios adjusted and transformed themselves to survive, as well as how other actors—the government, special interest groups and moviegoers—played their part in affecting Hollywood's transitions. Additional section introductions would have certainly been welcomed, especially for the first two sections, which are much less accessible and considerably more disjointed than the last.

The ambitious first part on "Hollywood Politics and Values" covers much ground, from moguls' and writers' personal politics to working women, and congressional hearings. Mark Wheeler's chapter explores the nascent politicization of Hollywood, and his discussion of Louis B. Mayer and Irving Thalberg's manufactured "fake news" documentaries, aimed at discrediting Upton Sinclair's EPIC campaign, certainly does give the impression that a new era in American politics was indeed beginning. Ian Scott's makes a convincing case for paying more attention to how screenwriters infused Hollywood with their own values and politics, looking more particularly at Columbia writers Jo Swerling, Sidney Buchman and Robert Riskin. While entertaining, J. E. Smyth's chapter on working women seems too encompassing for its own good. Looking in turn at representations of working women on film, actual women working in various capacities off screen at Hollywood studios, not to mention actresses as models of independence and specific film treatment of women's independence, only allows for cursory treatment of this vast area of study. The most groundbreaking piece in this section is Catherine Jurca's close study of the 1936-1940 hearings to regulate film distribution. Jurca not only cogently highlights the tensions and dissent within allied groups opposed to the studio practices of block-booking and blind selling, but also examines the arguments put forth by small exhibitors in favor of these practices.

The shortest section in this collection, devoted to the stars of the 1930s, as mentioned above, remains somewhat disjointed. Ina Rae Hark's opening chapter examines Shirley Temple's daddy-quest films in the context of settler cinema, Mark Glancy's piece details Cary Grant's arduous journey into developing a coherent and appealing star persona, and Peter William Evan's chapter probes Fred Astaire and Ginger Rogers' *Roberta*. Going against the popular opinion that their film musicals served escapist purposes, the author shows how *Roberta* stages the lovers' courtship against obstacles and hardships reminiscent of those endured by the film's Depression audience. While convincing, this argument is somewhat curiously undermined by fellow contributors' comments to the contrary (176-177, 218 and 251).

The most approachable section, perhaps thanks to its greater length, is the last, examining specific films. It is also the section that deals most directly with the Great Depression. Here, two more chapters deal with musical comedies. Harvey Cohen opens with a piece on *Footlight Parade*, bringing to the fore the film's textual elements pointing to the labor disputes and studio's infighting occurring while making the film. Cohen also situates the film within the discussions—ongoing at the time—on how best to solve the financial crisis and overcome economic sluggishness. David Eldridge, for his part, contextualizes youth musicals (musicals featuring adolescents such as *Babes in Arms, Strike up the Band* and *Girl Crazy*) to show how the films help assuage fears regarding youth vagrancy and ultimately reassure parents that the kids would be all right after all. Brian Neve and Melvyn Stokes respectively offer straightforward production and reception history of two very different films critical of unbridled capitalism, King Vidor's *Our Daily Bread* and Chaplin's *Modern Times*. For his part, Iwan Morgan reads John Ford's *Young Mr. Lincoln* as a Popular Front hero. Morgan argues that Ford achieved this by emphasizing the "everyday man" Lincoln rather than the statesman, furthering the idea that anyone could emerge as a capable and sensitive leader. Finally, Anna Siomopoulos turns her attention to three films, *Gabriel over the White House, Mr. Smith Goes to Washington* and *The Talk of the Town* to show how focus in these films is put on iconic public buildings rather than romantic coupling, and how this may have supported New Deal infrastructure efforts. Siomopoulos additionally tackles the gender politics at play where, in all three films, the female character must—at best— recede in the background to allow white men to emerge as leaders.

Hollywood and The Great Depression effectively meets its stated goals of casting light on lesser-known but crucial aspects of the film industry during the 1930s. The book's heavy emphasis on musicals and complete ghosting of gangsters and woman's films (why?), however, will certainly provide a somewhat distorted view of the era to newcomers and undergrads. It should also be mentioned that, despite its name, many chapters only perfunctorily glance at the Depression. The real subject here is the film industry in the 1930s, and the "Great Depression" is quickly replaced by such terms as "Great Depression decade," "Depression-era" and "Depression years" to better reflect most of the articles' focal points.

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Ulrich Ruedel holds a doctorate in Analytical Chemistry from the University of Muenster, Germany and has worked on optical biochemical sensors and intellectual property rights before turning to the practice and science of film preservation. As a 2005 graduate of the L. Jeffrey Selznick School, he has explored heritage color systems such as Technicolor at the George Eastman House. Subsequently, he worked as Research and Development Manager at Haghefilm Conservation and Project Manager for the non-profit Haghefilm Foundation, and as Conservation Technology Manager at the British Film Institute, before accepting his position as professor for conservation and restoration of modern media (moving image and sound, photography) at HTW - University of Applied Sciences, Berlin.

Juana Suarez is the Director of the Moving Image Archiving and Preservation Program, at Tisch School of the Arts, New York University. She is a scholar, film critic, and media preservation archivist/activist. Her research deals with cinema studies, Latin American and Latino-a cinema, cultural studies, women´s and gender studies, and immigration Studies. She is the author of *Sitios de Contienda. Producción Cultural y el Discurso de la Violencia* (Iberoamericana-Vervuert, 2010), and *Cinembargo Colombia. Ensayos críticos sobre cine y cultura colombiana* (Universidad del Valle, 2009), published in English by Palgrave Macmillan in 2012. She is the co-editor of *Humor in Latin American Cinema* (Palgrave Macmillan, 2015). Currently, she is forwarding a digital humanities collaborative project, tentatively entitled *Kamani: Audiovisual Archives, Cultural History and the Digital Turn in Latin America*, and a research project entitled *Memoria Nacional/Movilidad transnacional: la experiencia fílmica colombiana en el extranjero en años recientes.*

Simone Venturini is Associate Professor at the University of Udine. He has been in charge for the preservation and restoration projects at the La Camera Ottica Laboratory till the 2014. He is the Udine International Film Studies Conference and Magis International Film Studies Spring School scientific coordinator. He is the Director of the Udine's MA "Scienze del patrimonio audiovisivo e Educazione Media / International Master in Audiovisual and Cinema Studies (IMACS)." He deals with history and theory of film archives, film preservation and restoration, media archeology, technological, cultural and economical history of Italian cinema. He is part of the scientific committee of *L'Avventura – International Film and Media Studies Journal* and of the steering committee of *Immagine* (the AIRSC's Journal). He is scientific director of the Plexus Book Series. He publish for Berghahn, Amsterdam University Press, Carocci, Il Castoro, Marsilio, and in Journals such as *Journal of Film Preservation, Cinéma & Cie, Bianco e Nero, Immagine.*

Pamela Vizner is a media archivist from Chile with international experience in film, video, audio and digital preservation, specialized in collection management and digitization workflows. Formed as an audio engineer, Vízner began her career in sound archives to later develop interest in moving image collections. She holds a BA in Music and Sound Sciences from Universidad de Chile and an MA in Moving Image Archiving and Preservation from NYU. Pamela has participated in NYU's Audiovisual Preservation Program (APEX) since 2013 and is a passionate member of the international archiving community. She is always looking for ways to integrate diverse dialogue for mutual collaboration. She currently works as a consultant for AVPreserve.

Caroline Yeager is Assistant Curator, Moving Image Department, the George Eastman Museum. Education: Certificate from The L. Jeffrey Selznick School of Film Preservation (1998); Master of Fine Arts, Temple University (1975); Bachelor of Science Degree, SUNY Brockport (1972). Ms. Yeager teaches Curatorial Administration in the Selznick School; develops and manages grants for the Moving Image Department; supervises special projects in the department such as the renovation of the museum's Dryden Theatre. She curated the exhibitions *Hollywood Lost: The Power of Louise Brooks* (2006); *Reel Histories: Motion Pictures and the Civil War* (2011); *Americana: Hollywood and the American Way of Life* (2011); the film component for *The Intimate and the Sublime* at the St. Louis Art Museum (2006), and acted as Dryden Theatre programmer for six months in 2014. Publications: "A Lovely Little Film: Orson Welles, The Mercury Theatre, and *Too Much Johnson*" (2016). She is a member of the Association of Moving Image Archivists and currently is co-chair of the Advocacy Committee.

CALL FOR PAPERS

Open Call for Submissions

Synoptique Vol. 7, no. 1

Deadline February 28, 2018

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Editorial Board

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Synoptique: An Online Journal of Film and Moving Image Studies is a double-blind peer-reviewed open access journal housed in the Mel Hoppenheim School of Cinema, Concordia University (Canada). Founded in 2008, the journal has promoted innovative research in film and media studies, combining a variety of theoretical and methodological approaches—publishing special issues on topics as diverse as queer media practices, Indian cinema, moving image archives and the digital transition, film festival networks, queer nationalism, humour and feminist media theory, the aesthetics of cinema technology, and archival film training.

This year the journal is undergoing deep changes in order to better reflect the most pressing research concerns and priorities within media studies. As the field has been recently affected by a profound reevaluation of its traditional paradigms, Synoptique intends to provide a platform for publication, discussion, and reflection on the new political-cultural formations shaping media studies discourse. In this respect, the journal aims to intervene in key debates within media studies while critically tackling the economies and politics of scholarly activity, addressing dominant trends in academic research conducted within the historical, ideological, and institutional limits of the neoliberal university. In addition to, and as an extension of, this impetus, the journal aims to showcase approaches that address the transnational and global dimensions of moving image media research.

We are inviting submissions that come to terms with the shifting ground of film and media studies discourse. As trends and key terms in the field come and go, and concepts are stretched to the edges of critical utility, we propose an intensified engagement with the politics of uptake and the critical value of knowledge production in our specific but wide-ranging field. The spatial, the archaeological, the infrastructural, the biopolitical, the geopolitical—such discourses both address key debates and political conditions as well as fall prey to a fashion system dictated by the „innovation" mandates of university research in an era of neoliberal governance. The historical conditions of knowledge production, and the forms in which it is performed, displayed, and distributed, are a key focus of film and media studies across its various historical and theoretical contexts. How does a journal contribute to these debates, move beyond instrumentality and trendiness, and participate in wider struggles situated on the changing foundations of film and media studies research?

Issue 7.2 intends to mark the new direction the journal will take in the future; laying the groundwork for a new research platform that will engage with, and intervene in, the ever-shifting topographies and genealogies of media studies research. To signal this shift, we have decided to make 7.2 an open call issue, thus moving away from our traditional "thematic" focus, intending to promote a wide variety of scholars pushing media studies research in new directions. By leaving the theoretical and topical boundaries somewhat "open," the journal aims to bring together a set of articles that reflect the mutable concerns and priorities of the media studies field.

Possible areas of inquiry include but are not limited to:

-Distribution/Circulation/(In)Formal Economies of Media
-Anthropological and Ethnographic Approaches to Film and Media
-Infrastructure and Logistics of Media
-Political Geographies
-Media Industries
-Emergent Media
-Digital Media
-Queer and Feminist Approaches to Digital Culture
-Decolonial Media Practices
-Critical Race Studies
-Labour and Media Industries
-Histories and Theories of Political Cinema
-Indigenous Media
-Activist Media
-Non-Institutional Cinemas
-Technologies
-Global Television
-Archival Practices

Essays submitted for peer review should be approximately 5,500-7,500 words and must conform to the Chicago author-date style (17th ed.). All images must be accompanied by photo credits and captions.
We also warmly invite submissions to the review section, including conference or exhibition reports, book reviews, film festival reports, and interviews related to the aforementioned topics. All non-peer review articles should be a maximum of 2,500 words and include a bibliography following Chicago author-date style (17th ed.).
All submissions may be written in either French or English.

Please submit completed essays or reports to editor.synoptique@gmail.com, and editors-in-chief Giuseppe Fidotta (giuseppe.fidotta@gmail.com) and Patrick Brian Smith (patrickbriansmith@gmail.com) by February 28, 2018. We will send notifications of acceptance by March 15, 2018.

Appel à contributions libres

Synoptique: An Online Journal of Film and Moving Image Studies est une revue en libre accès, à comité de lecture et double évaluation anonyme, hébergée à l'école de cinéma Mel Hoppenheim de l'université Concordia (Canada). Depuis sa création en 2008, la revue a soutenu des recherches novatrices dans le domaine des études cinématographiques et médiatiques, en combinant une variété d'approches théoriques et méthodologiques – publiant des numéros spéciaux sur des thèmes divers : pratiques queer des médias ; cinéma indien ; transition numérique et archives des images en mouvement; réseaux de festivals de film ; nationalisme queer ; humour et théorie médiatique féministe ; esthétiques des technologies cinématographiques ; formations en archivistique cinématographique.

Cette année, la revue subit des changements profonds afin de mieux refléter les préoccupations et priorités les plus pressantes dans le domaine des études médiatiques. Alors que celui-ci a récemment été l'objet d'une profonde réévaluation de ses paradigmes traditionnels, Synoptique entend fournir une plateforme de publication, de discussion et de réflexion sur les nouvelles formations politico-culturelles qui façonnent le discours des études médiatiques. A cet égard, la revue vise à intervenir dans les débats clés du champ, tout en abordant de façon critique les économies et la politique des pratiques universitaires, en interrogeant les tendances dominantes de la recherche académique conduite à l'intérieur des limites historiques, idéologiques, et institutionnelles de l'université néolibérale. Afin de prolonger et d'élargir cette dynamique, la revue entend mettre en valeur des approches qui examinent les dimensions transnationales et globales de la recherche médiatique dans le champ de l'image en mouvement.

Alors que les tendances et les termes clés dans le domaine des études cinématographiques et médiatiques fluctuent, et que les concepts sont étirés jusqu'au bout de leur utilité critique, nous proposons un engagement profond avec les politiques d'appropriation et d'assimilation, ainsi que la portée critique de la production de savoir dans notre domaine vaste bien que spécifique. Des discours concernant l'espace, l'archéologie, les infrastructures, la biopolitique, le géopolitique répondent à des débats clés et des conditions politiques, tout en étant victimes d'un système de "tendances" dicté par l'injonction à l'innovation adressée à la recherche universitaire dans une ère de gouvernance néolibérale. Les conditions historiques de la production de savoir, ainsi que les façons dont elle est réalisée, exposée, et distribuée, constituent le centre d'attention des études cinématographiques et médiatiques à travers leurs divers contextes historiques et théoriques. Comment une revue peut-elle contribuer à ces débats, échapper à une certaine instrumentalité et aux modes, et participer à des luttes plus larges engageant les fondations changeantes de la recherche cinématographique et médiatique ?

Le numéro 7.2 de Synoptique entend marquer la nouvelle direction que la revue prendra dans le futur ; jetant les bases d'une nouvelle plateforme de recherche qui engagera un dialogue, et interviendra dans les topographies et généalogies changeantes de la recherche sur les médias. Pour ce faire, nous avons décidé d'ouvrir ce numéro à des contributions libres, rompant avec notre traditionnelle approche thématique, et de promouvoir un large panel de chercheurs dont les travaux orientent les études médiatiques dans des directions nouvelles. En laissant les frontières théoriques et thématiques du numéro « ouvertes », la revue souhaite réunir une collection d'articles qui reflètent les intérêts et les priorités émergent.e.s du domaine des études médiatiques.

Nous attendons des soumissions explorant, entre autres, les pistes suivantes :

-Distribution/circulation/économies (in)formelles des médias
-Approches anthropologiques et ethnographiques du film et des médias
-Infrastructure et logistique des médias
-Géographies politiques
-Industries médiatiques/industries des médias et travail
-Médias émergents
-Médias numériques
-Approches queer et féministes des cultures numériques
-Pratiques médiatiques décoloniales
-Etudes raciales critiques
-Histoire et théories du cinéma politique
-Médias autochtones
-Médias activistes
-Cinémas non-institutionnels
-Technologies
-Télévision mondiale
-Pratiques archivistiques

Les soumissions pour la section avec comité de lecture doivent faire entre 5500 et 7500 mots et inclure à la fois les citations en note de bas de page et une bibliographie suivant les directives du Chicago Manual of Style (17ème édition). Les images doivent être accompagnées d'une légende et des crédits photographiques. Nous accueillons également chaudement critiques et comptes rendus de livres, conférences, festivals et expositions, et entrevues liées aux thèmes susdits. Les articles sans comité de lecture doivent faire au maximum 2500 mots, et inclure une bibliographie suivant les directives du Chicago Manual of Style (17ème édition).
Les contributions rédigées en français et en anglais sont acceptées.

Les articles et essais doivent être soumis par email, à l'adresse editor.synoptique@gmail.com, et aux rédacteurs en chef Giuseppe Fidotta (giuseppe.fidotta@gmail.com) et Patrick Brian Smith (patrickbriansmith@gmail.com) avant le 28 février 2018. Nous vous informerons de notre décision avant le 15 mars 2018.

Becoming Environmental: Media, Logistics, and Ecological Change

Synoptique Vol. 7, no. 2 Special Issue

Deadline April 30, 2018

Edited by Patrick Brodie, Lisa Han & Weixian Pan

Synoptique is inviting submissions for an upcoming special issue entitled "Becoming Environmental: Media, Logistics, and Ecological Change." The focus of this issue will be on the increasing entanglements of global economies of extraction and the circulation of media. The title of this issue is inspired by Jennifer Gabrys' "becoming environmental" of sensory technologies (2016), where computational media becomes constitutive to the very environment, and subject formation within it, rather than simply operating in the environment as a backdrop. We propose to expand this imperative to the distinctive ways media—from computation, infrastructures, screens, technologies of circulation, and different modes of visualization—become environmental, remaining attentive to how these emerging human/nonhuman relations are constantly reconfigured, if not naturalized, via the state, global market, or other ideological projects.

The call for papers, and the impetus behind this special issue, navigates through three primary threads. First, we propose a reconsideration of "ecocriticism." Ecocritical scholarship argues that film and media has always been environmental, in the sense that they articulate "the human-nature relation and its mediation through technologies" (Cubitt, 2014). However, the ways in which media becomes environmental exceeds a focus on modes of representation about climate change, but extends to the lived environments through which media circulates, and the ecological footprints they generate. Moving from this critical impetus, we are following Nicole Starosielski's call to extend "the environment to encompass the social, architectural, and natural ecologies" (21) through which information circulates and infrastructure surfaces. As these environments come to be saturated with media and information in material and immaterial registers, we must critically reevaluate categories that continue to place a premium on a so-called "natural" environment.

The second thread echoes a continuous effort to foreground the unimagined and disposable populations in growing discourses around climate change and environmental justice across the global South (Camargo and Ojeda 2017). Rob Nixon's (2011) provocation of the slow violence of environmentalism offers a crucial environmental model of economies of abandonment (Povinelli 2011), which centers on issues of resource access that are unevenly regulated by official institutions as well as activist groups and communities. This issue follows his incentives to address the wide spectrum of everyday violence and disappearance emerging globally, yet also hopes to re-emphasize the importance of uneven distribution of visual fields and modes of visualization to discussions of natural environments. These unevenly distributed "visual rights" (Hochberg 2015) are "rooted in the historical and geopolitical conditions" of the global economy and hold a complex relationship to violence, power, and spatial governance of everyday life.

Finally, dovetailing from the previous two threads, we want to bring the various meanings and uses of the term "extraction" into view. This issue hopes to mobilize the notion of extraction through both economic and elemental realms. Sandro Mezzadra and Brett Neilson (2013) posit the importance of the intersection of extraction, logistics, and finance in the global economy. The logics of extraction are embedded within

the destructive, flexible, and productive fluctuation of financial markets which determine the speed, contours, and functioning of global logistical movement. The production of extractive frontiers, as scholars such as Jody Berland, Anna Tsing, and Macarena Gómez-Barris have noted, involves a shaping of cognitive, cultural, cartographic, and temporal experiences. However,
these physical and epistemological infrastructures are nonetheless constantly frustrated by dynamic ecologies of weather, climate, media, labor, politics, and other elemental factors. Logistics is a method for managing these disruptions, and the realities of extraction mean that this disruption is integral to the continued functioning of the global economy. How is extractable value produced in material and immaterial fabrications of a smooth planet? How do images and data capture, mapping, and control of environments in the context of late capitalism align with industrial imperatives to extract and manage natural resources? How might the study of global circuits of people, goods, and information through what we may call a „logistical turn" proffer sustainable and oppositional alternatives to the capitalist acceleration of catastrophes?

We are inviting submissions from scholars of all disciplines taking a critical approach to the intersections between these various fields of study.

Topics can include, but are not limited to:

-Conceptualizing environmental media
-Climate change and (digital) media infrastructure
-Geopolitics, the War on Terror, and imperial climate discourses -Speculation on catastrophe
-Media ecologies
-Oceanic/Atmospheric approaches to global circulation
-Resource extraction
-Economies of waste
-Planetary futures
-Ruralisms and urbanisms
-Post-humanism and cross-species approaches
-Queering media and the environment
-Anthropocene or Capitalocene
-Marxism and the transformation of the environment
-Confronting Nature/Society divides and categories of liberal humanism (rights, sovereignty, justice)
-Infrastructural access and the "right to the city"

Essays submitted for peer review should be approximately 5,500-7,500 words and must conform to the Chicago author-date style (17th ed.). All images must be accompanied by photo credits and captions.

We also warmly invite submissions to the review section, including conference or exhibition reports, book reviews, film festival reports, and interviews related to the aforementioned topics. All non-peer review articles should be a maximum of 2,500 words and include a bibliography following Chicago author-date style (17th ed.).
All submissions may be written in either French or English.

Please submit completed essays or reports to the issue guest editors, Patrick Brodie (patbrodie337@gmail.com), Lisa Han (lisahan@umail.ucsb.edu), and Weixian Pan (hannahpan622@gmail.com) by April 30, 2018. We will send notifications of acceptance by May 31, 2018.

Devenir environnemental :
médias, logistique, et changement écologique

Synoptique appelle à des contributions pour son prochain numéro spécial, intitulé «Devenir environnemental: médias, logistique, et changement écologique.» Ce numéro sera centré sur l'enchevêtrement croissant des économies mondiales d'extraction et de la circulation des médias. Le titre de ce numéro s'inspire de l'expression de Jennifer Gabrys (2016), qui décrit la façon dont les médias informatiques deviennent constitutifs de l'environnement lui-même, ainsi que de la formation des sujets qui l'habitent, plutôt que d'opérer avec cet environnement en toile de fond. Nous proposons d'étendre cet impératif aux façons distinctes (de l'informatique aux infrastructures, écrans, technologies de circulation, et différents modes de visualisation) dont les médias deviennent environnementaux, tout en restant attentifs à la façon dont ces relations émergentes entre humain et non-humain sont constamment reconfigurées, sinon naturalisées, par l'État, le marché mondial, et d'autres projets idéologiques.

Cet appel à contributions, et l'intention de ce numéro spécial, sont traversés par trois fils conducteurs. Tout d'abord, nous proposons une reconsidération de «l'écocritique.» D'après le courant écocritique, le cinéma et les médias ont toujours été environnementaux, car ils articulent « la relation entre l'homme et la nature et ses médiations par les technologies » (Cubitt, 2014). Cependant, afin de comprendre comment les médias deviennent environnementaux, nous devons aller au-delà d'une discussion des modes de représentations du changement climatique, et nous intéresser de façon plus large à l'environnement habité dans lequel les médias circulent, et aux empreintes écologiques qu'ils génèrent. Partant de là, nous suivons l'invitation de Nicole Starosielski à étendre « l'environnement afin d'inclure le social, l'architectural, et les écologies naturelles» (21) à travers lesquelles les informations circulent et les infrastructures font surface. A l'heure où ces environnements sont saturés par médias et informations de façon matérielle et immatérielle, nous nous devons de réévaluer ces catégories qui continuent à accorder une importance primordiale à un environnement prétendument « naturel. »

Le second fil conducteur fait écho à un effort continu de replacer les populations négligées au premier plan de discours concernant le changement climatique et la justice environnementale dans les pays du Sud (Camargo et Ojeda 2017). La thèse provocatrice de Rob Nixon (2011) sur la violence lente du mouvement écologiste offre un modèle environnemental crucial d'une économie d'abandon (Povinelli 2011), centré sur des questions d'accès aux ressources régulés de manière inégale par les institutions officielles, les groupes activistes et les communautés. Ce numéro propose de suivre son incitation à traiter du large spectre de violence quotidienne et de disparition qui émergent mondialement, et tente de ré-insister sur l'importance de la distribution inégale des champs visuels et des modes de visualisation dans une discussion des environnements naturels. Ces « droits visuels » distribués de façon inégale (Hochberg 2015) sont « ancré dans des conditions historiques et géopolitiques » de l'économie mondiale, et ont une relation complexe avec la violence, le pouvoir, et la gouvernance spatiale de la vie quotidienne.

Enfin, en complément des deux thèmes précédemment évoqués, nous souhaitons mettre en lumière les sens multiples du terme « extraction. » Ce numéro espère mobiliser cette notion d'extraction dans les domaines à la fois économique et des matières premières. Sandro Mezzadra et Brett Neilson (2013) postulent l'importance de l'intersection de l'extraction, de la logistique et de la finance dans l'économie mondiale. Les logiques de l'extraction sont intégrées dans les fluctuations destructrices, flexibles, et productrices des marchés financiers, qui déterminent la vitesse, les contours, et le fonctionnement des mouvements logistiques mondiaux. La production de frontières d'extraction, comme l'ont noté Jody Berland, Anna Tsing, et

Macarena Gómez-Barris, implique un façonnage des expériences cognitives, culturelles, cartographiques, et temporelles. Cependant, ces infrastructures physiques et épistémologiques sont constamment mises à mal par les écologies dynamiques du temps météorologique, du climat, des médias, du travail, de la politique, et d'autres facteurs relatifs aux éléments. La logistique est une méthode qui permet de gérer ces perturbations, et la réalité des extractions veut que ces perturbations soient une partie intégrante du fonctionnement de l'économie mondiale. Comment la valeur extractive est-elle produite dans la fabrication matérielle et immatérielle d'une planète lisse ? Comment les images, la saisie de données, la cartographie, et le contrôle des environnements s'alignent-ils sur les impératifs industriels dans le contexte du capitalisme tardif, afin d'extraire et de gérer les ressources naturelles ? Comment l'étude des circuits mondiaux de population, de biens, et d'informations à travers ce que l'on peut appeler le « tournant logistique » offre-t-elle une alternative durable et oppositionnelle à l'accélération capitalistes des catastrophes ?

Les contributions attendues peuvent relever de toutes les disciplines dès lors qu'elles proposent une approche critique de l'intersection de ces différents champs d'études.

Les sujets peuvent explorer, entre autres, les pistes suivantes :

- Conceptualiser les médias environnementaux
- Le changement climatique et les infrastructures des médias (numériques)
- Géopolitique, guerre contre le terrorisme, et discours impériaux sur le climat
- Les spéculations sur les catastrophes
- Ecologies des médias
- Approches océaniques/atmosphériques de la circulation mondiale
- Extraction des ressources primaires
- Economies du gaspillage
- Futurs planétaires
- Ruralités et urbanités
- Post-humanisme et approches intra-espèces
- Queerification des médias et de l'environnement
- Anthropocène ou Capitalocène
- Le marxisme et la transformation de l'environnement
- Confronter la division nature/société et les catégories de l'humanisme libéral (droits, souveraineté, justice)
- Accès aux infrastructures et « droit à la ville »

Les soumissions pour la section avec comité de lecture doivent faire entre 5500 et 7500 mots et suivre les directives du Chicago Manual of Style (17 ème édition). Les images doivent être accompagnées d'une légende et des crédits photographiques.

Nous accueillons également chaudement critiques et comptes rendus de livres, conférences, festivals et expositions, et entrevues liées aux thèmes susdits. Les articles sans comité de lecture doivent faire au maximum 2500 mots, et inclure une bibliographie suivant les directives du Chicago Manual of Style (17 ème édition).

Les contributions rédigées en français et en anglais sont acceptées.

Les articles et essais doivent être soumis par email aux rédacteurs invités, Patrick Brodie (patbrodie337@gmail.com), Lisa Han (lisahan@umail.ucsb.edu), et Weixian Pan (hannahpan622@gmail.com), avant le 30 avril 2018. Nous vous informerons de notre décision avant le 31 mai 2018.