

Introduction.

The Magic Lantern: Open Medium.

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The magic lantern, a technology with a history stretching from the middle of the seventeenth century to the middle of the twentieth – at which point it was widely replaced in lecture theatres and homes by similar forms of projection media – has been regarded for some decades as an important component of various cultural and media histories. Some historians, dealing with the gothic entertainment landscape (or with features of the gothic more generally) have examined the medium's place in macabre, supernatural, or spectacular projections, emphasising its hidden role within spectral entertainments such as the phantasmagoria (Heard 2006; Otto 2011; Jones 2018). Others, tending to emphasise post-1850s trends especially, have remarked upon its widespread appearance in the popularisation of science, or other educational fields, where the presence of the lantern was very marked during proceedings, lending visual authority to the educational discourses most often delivered by lecturers (Morus 2006; Lightman 2007; Dellmann and Kessler, forthcoming). More recently, the role of the lantern as a tool within various forms of public persuasion, related to imperatives as varied as temperance, suffrage, and political propaganda, has been revealed by social historians seeking to understand the broad reach of these discourses (Vogl-Bienek and Crangle 2016; Eifler 2017). The medium, that is to say, functioned highly

successfully for radically different individuals and institutions across an extraordinarily long period.

Across this broad range of activity, it is possible to identify countless motifs, trends, themes, or *topoi*, as Erkki Huhtamo's model of media archaeology has it (2011). Equally, one might, drawing upon Siegfried Zielinski's formulation, seek to identify the lantern's purview as a 'variantology' – a massive accumulation of experimentations and teleological dead-ends from all sorts of disciplines.¹ After all, while the basic layout of the apparatus – illuminant, projector, and projection surface – remained much the same across these years, its mode of operation, in combination with all kinds of performances, did not. Moreover, on many occasions, these new functions inspired modifications of the apparatus, with more powerful sources of light enabling projection of larger and larger images, for example, or new types of projector, such as fantascopes, epidiascopes or megascopes, each projecting new and spectacular visions and adding significantly to the cultural and technological reach of lanterndom. Such perspectives present the magic lantern as a constitutionally hybrid medium: less a stable technology and *dispositif* than a series of inventions, reinventions and interventions taking place not only in relation to the apparatus, but also in the course of managing it for a varied public.

Attempts to attribute medium-specificity, always an ideologically-loaded and critically-fraught task, therefore appear especially reductive in relation to this technology. For example, at the turn of the nineteenth century, when the British lantern industry sought, via vehicles such as the trade journal the *Optical Magic Lantern Journal*, to define the lantern primarily as a vehicle for uplifting, educational or instructive discourse, this was only accomplished by the too-easy dismissal of other modes of operation as childish, amateurish, or naïve (Kember

2009, 60-68). Modern theorisations of medium-specificity have been obliged to advance similar arguments, asserting that each medium possesses something akin to a character, a mode of operation natural to it, organically part of its make-up, as if all of the other potential uses were in some way incorrect or invalid. For André Gaudreault and Phillippe Marion, for example, ‘a medium does not really impose itself as an autonomous medium, one worthy of the name, until it has rendered its own opacity tangible and visible; in other words until it has defined its own way of re-presenting, expressing and communicating the world’ (2005, 3). Leaving aside the broader ontological debates this raises, and also the extent to which a medium may be said to possess its own internal energetics, or even its own intentionality, the centuries-long history of the lantern, and its persistent ‘failure’ to define a single mode of operation or to ‘impose itself as an autonomous medium’, presents us with a far less coherent – and more exciting – field of research, one that is necessarily open to the contingencies of practice not merely as precursors to or distractions from a medium’s ‘personality’, but as constitutive elements of its long-term existence.

All of which poses a different kind of problem. For, if studies of the lantern are to remain open, in principle, to the intrinsic variance of magic lantern use without seeking to prioritise any one mode of operation, and without taking heterogeneity itself as the guiding principle, how should they operate within this massive and diverse cultural field? This question might be asked with equal felicity of any medium, but in relation to scholarship concerning the magic lantern specifically, which is still in its infancy, the simpler question in the face of this bewildering empirical field is: where should we begin?

Of course, the first answer to this question is that we are not, in fact, just beginning. For sure, publications concerning the lantern have been thin compared to media such as film, which

has attracted decades of dense scholarly attention from within academia (especially in relation to forms of art or entertainment film, as opposed to amateur, local, industrial or educational productions). But across the past 25 years, there has been a steady flow of research concerning the lantern, especially from the Magic Lantern Society of the UK (MLS), which, alongside sibling organisations across the world, has embodied the bulk of knowledge and enthusiasm within this subject area. Moreover, the interests expressed by lantern researchers have been extraordinarily wide, with all aspects of entertainment, education, and social propaganda represented, a form of open-ended study which might provide an important impetus for disciplinarily entrenched work in other media. To this extent, MLS publications, including their own journals, *The New Magic Lantern Journal* (1978-2014) and *The Magic Lantern* (2014-present), and also the landmark volume of essays, *Realms of Light: Uses and Perceptions of the Magic Lantern from the 17th to the 21st Century* (2005), have served as models for trans-historical and trans-cultural forms of media study.

A different type of beginning is suggested by the substantial and ongoing work of compiling a definitive corpus of lantern slides and other materials. Whereas moving image or photographic archives often exist as discrete national or regional collections, the vast majority of lantern slides exist in large or small pockets of materials within other archives, museums and library or educational collections, as well as within countless private collections. Perhaps for this reason, there are, as yet, no definitive scholarly catalogues for lantern slides to match the provision of, say, the American Film Institute catalogues. Nor is it usually possible to track down a slide set should a researcher encounter a reference to it in a newspaper article or lecture review. In the wave of digitisation that has taken place in the last ten years, there have, of course, been numerous ‘rediscoveries’ of lantern collections. Once opened, boxes of slides recovered from the vaults often prove visually interesting for modern

audiences, too; after all, they had almost always been intended for public exhibition in the first place. As individual repositories have set about digitisation of such slides, following very varied institutional imperatives, the accessibility of slide images has risen dramatically, enabling scholars to develop a partial understanding of the massive and diverse *corpus* of such materials. No longer only dependent on the accumulation of private collections or access to fragile and usually uncatalogued public archives, digital resources enable scholars working in many countries to begin a process of aggregation, building up a picture of international production trends.

Relatively early among these digital resources, but not tied to any one institutional location, has been the Lucerna Magic Lantern Web Resource, an open access repository and catalogue founded and designed by Richard Crangle, who has also created the bulk of the digital images and metadata for the site, and who now chairs the Community Interest Company in the UK that manages it.² Lucerna has proven especially valuable as a research tool not only because of the large number of images it collates (over 38,000 at time of writing), but also because it incorporates an even greater number of slide records (over 145,000) drawn especially from surviving commercial catalogues of lantern slides, enabling scholars to locate materials, even if they cannot always see images. Its digitisation policy is inclusive: one of the great advantages of working in a relatively new area of media enquiry is that there does not yet exist anything like a ‘canon’ of lantern texts, and Lucerna seeks to preserve this open embrace of all types of lantern materials, whether commercially or privately produced, serving educational or entertaining ends, or produced and distributed in any national contexts. In addition, the database provides a wealth of contextual information concerning lantern slide sets, producers and exhibitors, locations, organisations, and events. In incorporating this

growing body of metadata, Lucerna also addresses the problem of making sense of lantern slides when their exact original contexts are long-forgotten.

This last concern with contexts for lantern study represents in many cases an extension of existing scholarship on the lantern, but has also initiated a series of projects that have picked up pace since 2014, and which have created a third type of ‘beginning’ in studies of the magic lantern. Opening up an increasingly broad range of national contexts for lantern study, these projects have generated substantial new scholarship and new resources. To some extent, the advance, here, is a purely practical one: resources such as Lucerna require considerable investment of time, and this is accomplished far more effectively during periods of funding, such as those provided by private funders or national research councils. But these projects are about far more than digitisation, vital as this is: they have enabled the dedication of unprecedented stretches of research time on the lantern and have therefore developed our knowledge in multiple national contexts across numerous fronts. They have also advanced technologies for public dissemination of this research, funded modern forms of performance and re-use of slides and apparatus as a type of experimental media archaeology, and have broadened public interest in this widely overlooked medium. And perhaps most significantly, so far as scholarship is concerned, they have demonstrated the significance of lantern use across a wide variety of disciplines, well beyond the niche interest of the lantern for earlier generations of media historians.

This issue (and the next) of *Early Popular Visual Culture* represents some of the work generated by three of these recent projects. It began as a series of conversations, taking place over several years, within two of the projects I have been involved with as an Investigator: the Joint Programming Initiative on Cultural Heritage-funded European project: ‘A Million

Pictures: Magic Lantern Slide Heritage as Artefacts in the Common European History of Learning' (MP) (2014-17), led by Frank Kessler at the University of Utrecht in the Netherlands, with other Investigators in the UK, Belgium, and Spain³; and the Australian Research Council Discovery Project, 'Heritage in the Limelight: The Magic Lantern in Australia and the World' (HitL) (2016-19), led by Martyn Jolly at Australian National University, with other investigators at ANU, the University of Western Australia, and myself at the University of Exeter in the UK.⁴ Both of these projects have had broadly exploratory aims: they have sought, through traditional scholarship and creative re-use, to generate knowledge regarding magic lantern use in all of the countries involved, as well as new understanding concerning international networks and trade. They have also both employed databases as substantial repositories of research materials: MP has permitted a substantial expansion of the Lucerna database, with new materials from each of the four contributor countries; HitL has created a new repository, accessible via the project website, of slides digitised during the project, and is now collaborating with digital partners through the National Library of Australia's database aggregator, Trove, to share these more widely. In addition, both projects have generated new models of performance employing the magic lantern, working with a series of contemporary showmen and show-women, heritage professionals, and other creative practitioners (some examples of the Australian shows can now be seen on the HitL website). Given that these are sibling projects, sharing many objectives, and hosting workshops and conferences that regularly have brought key personnel together, the current volumes seemed a natural endeavour, representing an important opportunity for reflection on the state of the field, and a consolidation of the increasingly international enterprise of lantern study.

These are by no means the only projects that have focussed on the lantern in recent years. The eLaterna platform hosted at the University of Trier, which preceded both MP and HitL, contains a wealth of materials, including both an archive of slides and apparatus and a ‘Companion’ comprising surveys and essays on aspects of projection.⁵ More recently, major new projects have begun in Europe, including ‘Projecting Knowledge – The Magic Lantern as a Tool for Mediated Science Communication in the Netherlands, 1880-1940’ (2018-23) at the University of Utrecht, which focusses especially on aspects of the history of science⁶; and ‘Performative Configurations of Projection Art in Popular Knowledge Transfer. Media Archaeology Case Studies on the History of Working Media and the Screen’ (2019-21), at the University of Marburg in collaboration with the University of Trier, which, among other ambitions, seeks to consider projection devices such as the magic lantern as ‘useful media’.⁷ The third project represented by articles in this volume is ‘B-magic: The Magic Lantern and its Cultural Impact as a Visual Mass Medium in Belgium’ (2018-2022), coordinated by Kurt Vanhoutte at the University of Antwerp, with numerous other investigators in Belgium and the Netherlands. B-magic has sought nothing less than to ‘write the as yet unwritten history of the magic lantern as a mass medium and cultural practice in Belgium’, with six project teams working on themes from media history to urban studies, and reaching extensively between disciplines in the manner that study of this medium has always needed.⁸

Activity on this scale (and one might add to this list, to my knowledge, at least three other projects in the offing) is indicative of the burgeoning interest occasioned by this medium in the past five years from scholars working in multiple disciplines, most of whom have very different research specialisms in mind. These two volumes of *Early Popular Visual Culture* bring together a sample of this work, seeking to represent not only some aspects of the MP, HitL and B-magic projects, but also some sense of the intrinsic variability of magic lantern

use between the eighteenth and early twentieth centuries. Emphasising the adaptability of the medium rather than its potential autonomy, this collection of articles implicitly resists the creation of a new subject area akin to ‘lantern studies’, at least insofar as such a discipline might seek to canonise particular texts, practices, and functions at the expense of others. A better definition of the field of study emphasises instead the lantern’s mercurial identity as an ‘open medium’, underlining its intersections with institutional and performative practices, as well as other media, and thus enabling us to track and reconsider its pervasive presence across countless cultural locations, from the fairground to the schoolroom. All media, that is to say, are less consistent and more capricious in their institutional and performative alliances than is often apparent within discipline-led enquiries, but open media like the lantern seem especially well suited to constant reappraisal, reinvention, and re-use, and our enquiries into them should be careful to acknowledge and match this openness.

Responding to this fluid definition, these articles cover historical material ranging from the mid-eighteenth to the early-twentieth centuries, but with an emphasis on the ‘golden age’ of the lantern between 1880 and 1910, at which point it may legitimately be said to have possessed the characteristics of a fully mass medium, still working across a wide variety of radically different contexts. Still more significantly, however, they also address an international range of contexts for lantern use, something which recent and current projects, including MP, HitL and B-magic, have also begun to consider. As this work concerning the lantern continues to coalesce, I would like to argue that a fundamental principle of the lantern’s openness was its constitution as an international medium, serving exhibitors and audiences from many very different cultures. The point here is not only that the lantern played important functions in a wide range of national contexts, though it most certainly did, but also that transnational patterns are threaded through all aspects of lantern use, whether

textual, technological, performative, or institutional. Research questions concerning the international constitution of the lantern might therefore be addressed at several levels, including, at minimum, the following:

- **National centres for global slide and apparatus production:** Which were the main centres for lantern slide production, and in what types of slides did they specialise? Which other nations or regions were also making slides, and how did these differ?
- **National and regional exhibition of the lantern:** Which countries made use of the lantern, and when and how did this occur? What cultural variations were there between nations and cultures in respect to lantern exhibition?
- **Transnational dissemination of lantern slides and apparatus:** In which other countries did lantern producers and distributors market and sell their apparatus? To what extent were these networks governed by colonial or institutional frameworks?
- **Transnational movement of lantern slide performers and exhibitors:** Which performers and types of performance became popular on the international circuit? Were there commercial or other networks that maintained this type of mobility and trade? What cultural and linguistic restrictions were there upon movements of this kind?
- **International content of lantern slides and shows:** Where and how did lantern shows present slides concerning other countries to ‘home audiences’? What was the content of these shows and how did they negotiate aspects of cultural identity for diverse audiences?
- **Work in international archives:** Where are slides to be found in international collections? How can they be brought most effectively to the attention of curators and to the general public?

- **Digitisation, databases, and creative re-use:** What are the most effective ways of digitising and organising lantern slide material that we uncover internationally? How can we develop new models for creative re-use likely to engage new audiences?

This list is far from exhaustive and, given the amount of buried detail in each of these queries, it verges on the simplistic. Yet though these are all basic questions, they each require far more attention: some, like the third and fourth, have barely been considered.

Unsurprisingly, given these fundamental gaps in our knowledge, most of the articles in these issues take on an exploratory tone, partly because the material uncovered is necessarily drawn almost entirely from new primary research. Taken as a whole, they are also necessarily approaching this material in a piecemeal fashion, adding to the recent aggregation of scholarship on the international lantern represented by databases and project-led modes of enquiry as well as by existing scholarly writing and creative practice. However, in order to track some important trends emerging in work of this kind, I have found it useful to break up the material in both issues into different sections. The first volume, addressing varied cultural contexts for lantern use, includes a first section focussed upon national and regional histories drawn from Australia, Belgium, Britain, France, and Russia. The second section incorporates two brief articles addressed towards new, and equally international, practices of creative re-use. The second volume is more directly focused on issues of mobility, with a first section addressing historical transnational movements of slides, personnel, and shows, and a second section that includes articles dedicated to contemporary transnational phenomena, considering from a digital humanities perspective the digital capture, archiving, processing, and creative dissemination of lantern slide imagery to modern viewers.

The present issue begins with Martin Bush's careful study of the relationship between astronomical lantern slides and earlier exhibition technologies, especially the Eidouranon, making the case that lantern technologies, which have frequently been read as an important influence upon subsequent media, should also be understood in terms of their own intermedial and performative borrowings. Whereas Bush is especially interested in the experience of colonial Australian audiences in response to these materials, Lina Novik has in mind the audiences of Imperial Russia across an even longer period. Presenting a survey of the role of the lantern in this country across 150 years, Novik describes the gradual transition between different applications of the lantern, finding that a conversion towards scientific topics was accomplished unevenly across this period. In the following two articles, both Karen Eifler and Emily Hayes address very different aspects of lantern use in Britain during the late nineteenth early twentieth centuries, exemplifying the versatility of this open medium. Eifler discusses the strongly affective content of lantern slide presentations delivered by religious and political bodies, showing that the lantern was effective in this context because it proved capable of contributing to shows that routinely delivered sensational, moving, and intimate material to audiences. By contrast, Hayes' detailed study of the lantern lectures delivered by Vaughan Cornish to the Royal Geographical Society suggests that in this, relatively rarefied, educational context, the lantern contributed in a quite different way, playing a part in a broad collaboration between various members of the Society from the processes of lecture-writing and slide production to the eventual performance given alongside and to fellow members, but also extending out from the Society in the form of a cooperation with the commercial slide distributor Newton and Co. Frank Kessler and Sabine Lenk's contribution maps out one further, radically different kind of territory for lantern study, this time addressing the work of French and Belgian Catholic priests in employing the lantern for purposes of education and propaganda. Besides a

consideration of the more aggressive forms of propaganda to which the lantern could sometimes be applied, the article also considers an institution, in this case the Catholic Church, which worked extensively across borders, a concern that will be further developed in the following issue.

In the final section, aspects of creative practice are considered within a short portfolio dealing with contemporary experimentations in making lantern slides. Jeremy Brooker reflects upon his career as a modern-day, collaborative lanternist, in which showmanship, musical composition, and slide design have all played an important part. Providing a modern-day reflection upon the connections between slide production and exhibition, Brooker's article also offers important archaeological insights into the historically collaborative processes of lantern showmanship. Finally, Martyn Jolly, a modern-day showman in his own right, describes two further case studies of experimental modern slide design, this time by contemporary Australian artists. Once again, in these cases, Jolly demonstrates the significance of considering during the production process the eventual exhibition of the slides, describing some of the detailed technical processes that were employed to ensure their effectiveness in front of audiences.

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¹ For an introduction to the Variantology Project, see the project website: <http://variantology.com/>

² Lucerna: The Magic Lantern Web Resource: <https://www.slides.uni-trier.de/>

³ Million Pictures website: <https://a-million-pictures.wp.hum.uu.nl/>

⁴ Heritage in the Limelight website: <http://soad.cass.anu.edu.au/research/heritage-limelight>

⁵ eLaterna website: <https://elaterna.uni-trier.de/#/>

⁶ For information on this project see: <https://www.nwo.nl/en/research-and-results/research-projects/i/60/31760.html>

⁷ For information on this project see <https://www.uni-marburg.de/de/fb09/medienwissenschaft/forschung/projekte>

⁸ B-magic website: <https://www.uantwerpen.be/en/projects/b-magic/>