

**Developing ‘An Eye for Country’: The Photographic in the
Production and Transmission of Geographical Knowledge in the
University of Oxford, 1906–1939.**



*R. Cherwell at Bletchington (Enslow Bridge) :- Excellent meander
Note Flood plain, and gentle slope towards river*

**Thesis submitted to the School of Geography and the Environment,
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Abstract

The proposition of thinking geographically and, thus, how to observe a landscape can be encapsulated in the phrase “an eye for country”. This thesis investigates how such a fundamental praxis of the discipline was transmitted both within a university and a secondary school context in the early twentieth century. Here, I concentrate on the specific relationship between photographic imagery and its role in the dissemination of geographical knowledge, an area that, hitherto, has not been foregrounded. However, photographic imagery was available in a variety of genres, including both lantern slides and pictorial view postcards. This research examines the content, audience(s) and intention of imagery within two university collections.

The construction of two detailed catalogues of archival material from the Oxford School of Geography, presented in Appendices One and Two, revealed the wide ranging and eclectic sourcing of available imagery with which to construct and disseminate geographical knowledge. This archival material is composed, firstly, of glass lantern slides compiled and used by the School’s academics in their lectures from the inception of the Oxford School in 1899. The second archive emerges from the students’ regional descriptions of areas within the British Isles which derived from their personal interaction with the landscape and was a compulsory component of their diploma examinations from 1906 until 1939. By abstracting data from the catalogues, the impact of developments in photographic technology on the university

student body, both as recipients of illustrated university lectures and as producers of their own geographical knowledge, is examined in this research. By engaging with the student body this research enlarges the institutional biography of a university department beyond the well-rehearsed canonical.

By constructing mini-biographies of the Oxford student body, presented in Appendix Three, it became possible to investigate the careers of those students. That over two thirds of the cohort pursued teaching careers enables further understanding of the connections between the visual experiences of the university student and the onward transmission of geographical knowledge to a broader secondary school public.

This thesis, thus, provides insights into a broader understanding of the everyday history of geography by investigating the spaces of both production and transmission of geographical knowledge with particular regard to the use of the photographic and the encouragement to observe geographically with an ‘eye for the country’.

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My former colleagues in the Radcliffe Science Library and the Social Sciences Library in Oxford have continued to welcome me into those buildings. Thanks are also due to all the S.o.G.E. professional services staff, in particular the Research Degrees Coordinator, Caroline Anderson, and her predecessor, Ruth Saxton. Special mention, here, must be made of the Facilities team under Alex Black who made space available for the slide collections which enables me to work on them uninterrupted whilst I continue to catalogue them. I promise I will finish that task and vacate the space.

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Abbreviations

BAAS	British Association for the Advancement of Science
COVIC	Colonial Office Visual Instruction Committee
HEIR	Historic Environment Image Resource
RGS	Royal Geographical Society

Notes on Imperial units

1d (one penny) - 1/12th of a shilling (1/-), 20 shillings to 1 pound (£1)

1/- = 5p

1inch (1") - 1/12th of a foot, 3 feet (3') to 1 yard, 1,760 yards to 1 mile

1" = 2.5 cm.

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Chapter 1

Introduction

*“The role of vision in constituting geographic knowledge is fertile terrain”
(Crang: 2003: 238)*

In 2005 one went into the Lower Reading Room of the Oxford School of Geography Library in Mansfield Road, continued right to the stairs at the end but then turned left and entered the space under those stairs to locate the wooden cabinets containing glass lantern slides. A decade later those same wooden cabinets were now located in the Lower Reading Room, also known as the Lankester Room, of the Radcliffe Science Library on Parks Road, Oxford. Fast forward another decade and the cabinets have moved again to a temporary location in the basement of the current home of the Oxford School of Geography and the Environment in the Dyson Perrins Building, South Parks Road. The eventual home of the contents of the cabinets will be in the Bodleian Offsite Storage facility in Swindon. But what, exactly, are the contents? The staff of the departmental library had a typed list entitled ‘Teaching slide collection’ which gave a short title and an accession number. Was this an example of an obsolete format taking up valuable space or was there more to discover about these glass lantern slides?

Similarly in 1995, during a refurbishment of the basement of the University of Oxford Examination Schools on the High Street, a large number of boxes, containing unclaimed copies of student examination submissions, were returned to the School of Geography Library. Once again, the library

staff had a typed list to hand giving title and author with an occasional date of submission. It transpired that the boxes contained copies of the required 'description' dating from its incorporation into examinations in 1906, which over time morphed into the undergraduate student dissertation. As the library staff explored the contents it transpired that a significant proportion of these descriptions contained illustrative material which could prove useful in future studies of the areas described by those early students. As descriptive regional geography had lost ground to other paradigms in geographical pedagogy, including the quantitative revolution of the 1960s, a decision to retain only those with illustrative material was made and the boxes were transferred to the Lower Reading Room of library. Two decades later, those same boxes were now located in the Lower Reading Room of the Radcliffe Science Library. Fast forward another decade and the contents of those boxes have been individually catalogued and sent to the Bodleian Library Offsite Storage facility. But textual cataloguing does not minutely detail all of the illustrations so what of that rich source of illustrative material dating from nearly a century ago? Was this an example of a 'pile of paper' never looked at and destined to be destroyed or a valuable resource awaiting discovery?

So, there are two library collections, (or should that be archives?), awaiting further investigation and exploitation. Both collections contain photographic material and the cultural geographer Michael Crang's epigraph leads me to consider what questions I should be asking of this material.

Primary Research Question of the Thesis

The primary question which my research sets out to answer is: ‘Did photographic imagery play a significant role in the production and transmission of geographical knowledge in the Oxford School of Geography before World War II?’ My thesis argues that this is indeed the case as the concept of the ‘eye for country’ emphasized the value of the visual in geography in the UK. I discuss the emergence of this concept below. However, there is no one single site of production nor of transmission and I show how traditional, canonical histories of the discipline can be augmented by a parallel history, aligned with the everyday

Empirical Questions which flow from the Primary Question

The first site of production is to be found within the glass teaching slide collection so that from the primary question emerges the first empirical question: ‘Who produced the photographic images used by the academics in the Oxford School?’ In line with the first site of production is the first site of transmission, namely the lecture theatre within the Oxford School of Geography. This provides the context for a second empirical question — ‘What use was made of photographic imagery by early Oxford geography staff?’ By projecting glass lantern slides from the teaching collection, the rationale for the creation of the collection is evidenced. As the photographic historian Frizot has noted, photographs can be “considered as working objects in their own time” (Frizot 1998: 12). The work that the photographic imagery

was expected to perform could, and did, vary as the image was employed in a variety of settings. For the historical geographer James Ryan, this involved considering “how we might best begin to map these meanders of photographic meaning it is perhaps appropriate to begin at that complex institutional space: the archive” (Ryan 2000: 119). I discuss the construct of ‘what is an archive?’ in chapter 3.1.

In a recent handbook on historical geography, the photographic archivist Joan Schwartz asks the following questions concerning photographic imagery, namely: “what are the photographs of, what are they about, what were they intended to do, who saw them, and what impact did they have” (Schwartz, J.M. 2020a: 979). By interrogating the teaching slide collection, I seek to understand how an eclectic sourcing of photographic imagery by Oxford academics was repurposed into a cohesive whole designed to transmit geographical knowledge. Chapters 4 and 5 are principally concerned with generating an understanding of the content, audiences and intentions of the images within the lantern slide collection, which by my cataloguing becomes an archive. However, geographical knowledge was also both produced and transmitted in the more informal, yet regarded as essential, setting, namely the outdoor field excursion. This setting is also discussed in chapter 4.

From the main, overarching question flows a further empirical question, namely: ‘What use was made of photographic imagery by early Oxford geography students?’ In chapter 6, I discuss a second site of

production of geographical knowledge as revealed by the scrutiny of the students' fieldwork results. These were presented for examination in the regional descriptions prepared by both diploma and certificate students, and which form the second archival collection noted in my introductory vignettes. These descriptions not only invoke the production of geographical knowledge through the use of photographic material but also give an indication of the reception of the geographical knowledge transmitted by the academics in the lecture theatre. In my scrutiny of the imagery presented by the students, I examine the content, audiences and intentions of the range of imagery amassed by the students.

By providing evidence of their work in the field these descriptions also showcase the emphasis on outdoor involvement in the production of geographical knowledge. In doing so, they provide a context for the use of photographic imagery in that second site of knowledge production. This context is important as it also provides the evidence for the students' understanding of the 'eye for country' and which is presented in the photographic imagery they included in their descriptions. Within conventional library and archival practices, illustrative material is frequently assigned a minor supporting role where a brief acknowledgement that such material exists within a text is considered sufficient. Increasingly, such practices are being questioned, as Schwartz has noted, beyond enlivening text, photographs

“can do far more when they are returned to and understood in the context(s) in which they were taken and initially circulated” (Schwartz, J.M. 2022: iii).

By scrutinizing the students’ use of photographic imagery in their regional descriptions, I set the scene for the introduction of the second site of transmission discussed in chapter 7. In that chapter, I trace the use of photographic imagery beyond the confines of the Oxford School of Geography, as the second site of transmission is the setting for the teaching careers of the majority of the Oxford students. In developing mini-biographies for the students, I identify my second site of transmission which entails a cascading of geographical knowledge created in the first and second sites of production.

Methodological Questions which flow from the Primary Question

The principal methodological question which emerges out of my primary research question is: ‘What are the actual and desirable practices concerning photographic images in geographical archives?’ The answer to this question involves an understanding of the concept of ‘uniqueness’ which I discuss in chapter 2.7. Acknowledging the value of the supposedly mundane leads to a further methodological question: ‘How can visual sources be used to enrich geographical enquiry?’ By framing my research within the broader range of archival research occurring in geography, I show the significance of the photographic within the production and transmission of geographical knowledge.

Other methodological questions which flow from the primary question concern variety in biographical genres. The first such question is: ‘What are the advantages and challenges of studying an entire cohort of students, vis-à-vis selected canonical academics?’ This question I address in chapter 7.

In chapter 3.8 I answer a further methodological question, namely: ‘What are the opportunities and limitations offered by the variation in biographical genre that must be applied to a group, or collective, as opposed to an individual?’ Throughout this thesis I, also, investigate the use of other biographical genres, including that of the object, discussed in chapter 4, and the institution, developed in chapter 5

My research, therefore, returns to the context in which photographic imagery was both created and employed in the early twentieth century Oxford School of Geography in order to promulgate an emerging discipline. In doing so, I endorse the concept that photographic imagery was, indeed, a working object.

Within conventional library and archival practices, illustrative material is frequently assigned a minor supporting role where a brief acknowledgement that such material exists within a text is considered sufficient. Increasingly such practices are being questioned, as Schwartz has noted, beyond enlivening text, photographs “can do far more when they are returned to and understood in the context(s) in which they were taken and initially circulated” (Schwartz, J.M. 2022: iii). My research returns to the

context in which photographic imagery was both created and employed in the production and dissemination of geographical knowledge in early twentieth-century Oxford. Beyond this specific locale, I draw attention to a broader context in which photographic imagery was employed in the promulgation of an emerging discipline.

An Everyday History in parallel to a Canonical History

Historical geographers have, hitherto, directed more attention towards academics and their assessment of what constitutes geographical knowledge.

As the historical geographer Hugh Clout recently remarked:

“The shaping of [disciplinary geography] is best illuminated by charting the lives and works of individual geographers and by identifying how their career stories have been guided by ideas and advice received from influential others.” (Clout 2024: 23)

Less attention has been directed towards other actors within the discipline, such as the university student and those promulgating geographical knowledge beyond academe, in particular schoolteachers. However, Maddrell’s 2009 work on the many locations in which women performed geographical work, opened up the field by highlighting areas that deserved greater attention. Can these two Oxford collections be curated so that they become archives to be fully explored and exploited in the furtherance of the study of the history of geography? This thesis will show that, in so far as a single institution can act as an exemplar for a national outlook, my investigation into the Oxford School of Geography will rise to this challenge.

Previously, in work examining the history of geography and the creation of geographical knowledge, most attention has been focused on the role of leading academics. The work of Goonewardena on Harvey (2023), Powell, R.C. on Boaz (2015), and Ó Tuathail (1992) and Kearns, G. (2009) on Mackinder exemplify this approach. In this, historical geographers have followed the Carlylean exposition of the ‘great (white) man’ to create ‘canonical’ histories of the discipline. Baigent and Reyes Novaes (2020) give a cogent rebuttal to this view. However, in 1830 Thomas Carlyle asserted that “social life is the aggregate of all the individual men’s lives who constitute society; history is the essence of innumerable biographies” (Carlyle 1830: 414) before apparently restricting this concept in his 1840 public lectures *On Heroes, Hero-Worship, and the Heroic in History*.

Lorimer challenged this canonical view in 2003 when he propounded an alternative way of studying the history of geography — one which moved away from “high academic debate to explore the discipline's modern intellectual provenance” and away from “grand, scholarly stories set in the quasi-mythological and exclusive spaces of the academy” (Lorimer 2003: 200). Sidaway has situated a review of a number of alternative ways as being “beyond canonical histories” (Sidaway 2024). In his article, Lorimer changed the scale from the ‘grand’ to the ‘small’ story, thereby introducing a micro perspective into the history of geography. This change in scale has also opened the history of geography to a consideration of intermediate scales.

Such scales are often the result of an aggregation of multiple small stories into a composite picture. Such aggregation was seen in Dando's (2014) consideration of the geography enacted at the Hull House in Chicago whilst Clout (2016) moved beyond the mainstream of French academia to investigate some of the contributors to the *Géographie Universelle* publishing project under the guidance of Paul Vidal de la Blache. In this thesis, I aggregate the multiple small stories of Oxford School of Geography diploma students before World War II into a composite picture of the careers of those students and, thus, provide evidence for the dissemination of the geographical knowledge promulgated by the Oxford School.

By acknowledging the role of the others in the creation of geographical knowledge and wishing to construct a history from below, the examination of the students' work enables me to explore a subaltern history at an intermediate scale that is only now beginning to be investigated (e.g. Bruinsma 2021a). In this context, I use the concept of subaltern, not in a colonial or post-colonial way but in a more generalised way to consider "axes of social difference, such as gender, age [or] class", whereby "previously hidden, unfamiliar, and mundane aspects of [the] creation and dissemination" of geographical knowledge can be elucidated (Jöns *et al.* 2017: 656).

The Variety of Biographical Genres employed in this Thesis

By moving beyond the work of the students to a consideration of the students themselves I employ a biographical methodology. Biography is a

research area which has expanded beyond the study of the single personage as Baigent (2024) has discussed. As I noted above this expansion can include the move from the single to the collective, but Baigent further moves such considerations from the people involved to the institution itself (Baigent 2024: 26). Further, Bruinsma (2024a) demonstrated, in turn, the use of collective biography for a subaltern group — a university student body — to elucidate trends in the production of geographical knowledge. However, the exploration of the student body as a fruitful area for research is one that occurred both simultaneously and independently in Glasgow and Oxford.

Moreover, other material categories are now considered as being available for a biographical approach. Appadurai's (1986) seminal construct of the 'social life of things' has resonated across many research fields, including geography. According to Appadurai, the remit of biography is expanded to consider the 'life' of objects from creation — to use — to disposal — to rediscovery. In the case of lantern slides Sonnleitner's argument that "things come to be biographic objects because they afford agency in specific socio-historic constellations" (Sonnleitner 2024: 361) resonates with my research as I uncover the biographies of some of the images. Sandweiss concurs with this assessment stating that "photographs have histories of their own and [we] need to pay attention not just to the visual information they contain, but to their contexts, their materiality, and their shifting uses" (Sandweiss 2020: 7). Archival collections of glass lantern

slides, including that of the Oxford School of Geography, demonstrate such agency and as I investigate the biography of some individual images the various meanings attached to particular images as they shift across audiences is revealed.

However, the possibility of using reception history as a means to further elucidate the biography of the imagery present in the Oxford collections is limited by the absence of contemporary textual material commenting on the imagery. This is implicit in the emphasis that the historian Harold Marcuse has placed on the role of perception by the recipients (participants, observers or retrospective interpreters) in the production of a reception history (Marcuse 2003). Brönnimann and Frei's work using citation statistics in their discussion of a reception history for early North Atlantic climate variability papers highlights the highly textual aspect of this concept (Brönnimann and Frei 2008). Such a textual element is also present in Keighren's 2006 use of marginalia to analyse the reception of Semple's 1911 seminal work on the *Influences of geographic environment*.

The specific socio-historic placement of these collections in Oxford enables a further, more recent, biography to be excavated — that of the biography of the institution. This can be regarded as focusing on an institution as a social construct as well as a specific place and on the interactions that people, both internal and external, have with that construct and place, and which enable the institution to be created, maintained and represented.

Institutional biography moves beyond the canonical history of an institution, focusing on leading academics, to a consideration of a more inclusive and practical interpretation. By exploring both the contents of the archival collections of visual imagery and the collective biography of the students of the Oxford School of Geography my thesis provides an insight into a student-focused history of that institution. My research, thus, develops the biography of an institution which can serve as an exemplar for further such studies.

By further researching the subsequent careers of the students, I engage in a different aspect of the history of geography, namely the creation of the geography specialist schoolteacher. My work in this thesis, therefore, also addresses the question posed by Schurr *et al.* as to “who makes geographical knowledge?” (Schurr *et al.* 2020: 317). Here, though, I expand the answer to include a much broader cohort of geography specialists whose influence extended beyond academia. By this expansion, I also engage in a different disciplinary history — that of the perception of scholastic (i.e. school) in relation to academic (i.e. university) education.

The Variety of Photographic Genres investigated in this Thesis

There are many ways of knowing, or forms of understanding, a particular discipline which have been reflected in recent geographical literature, more particularly since the beginning of the twenty-first century. In 1992 Livingstone articulated that “geography [means] different things to different people in different settings” (Livingstone 1992: 347). This is a

statement which has attracted attention including the introductory chapter to Jakobsen *et al.* 2022 and the six papers which comprise the 2019 themed intervention around ‘Reappraising David Livingstone’s *The Geographical Tradition*’ under the editorial auspices of Boyle *et al.* These ways of knowing include the bringing together of both professional and amateur knowledge (e.g. Toogood 2011 and Veale *et al.* 2014). At the beginning of their studies, geography students can be regarded as ‘amateurs’ in their understanding of the discipline, whilst their academic lecturers can be equated to the experts or professionals within the subject. Similarly, school pupils are amateurs whilst their specialist teachers are the professionals. This cascading of geographical knowledge, from the academic lecturer to the university student and then from the specialist schoolteacher to their pupils, is a process I explore in this thesis. During their studies to become geographical professionals students are the recipients of previously created knowledge. They engage with that knowledge in a variety of ways, e.g. via written texts, such as textbooks and journal articles, as well as via the auditory experience of the academic lecture or school classroom.

However, there are other modes by which subject knowledge can be both created and disseminated. Often regarded as being supplementary to the written word, the visual image can both enhance and explicate a text. In their article on canonical geographies Keighren *et al.* note that text should not necessarily be privileged “over geography’s practical and non-textual

practices” as by doing so is to “risk obscuring geography’s practical, quotidian, and bodily practices” (Keighren *et al.* 2012: 298). They further note that:

“Much of what geography is ... is a question of methodology, of work done in the field, of techniques learned and passed on ... and of the production of visual outputs: maps, photographs, diagrams.” (Keighren *et al.* 2012: 298)

It is just these methodological practices of field work and visual techniques, in particular those relating to photography, that I bring to the fore in this research.

Frequently, the most iconic visual image associated with geography is the map, constructed using cartographic techniques, but this is not the only type of imagery available to the practitioner of the discipline. By engaging with one particular mode within the visual my research brings into focus the photographic image as a vital element within the creation and dissemination of geographical knowledge. The pictorial image has played a significant role in presenting to the viewer a landscape with which they may not be familiar, e.g. a glacier or a desert. The pictorial may be an artistic re-presentation, a field sketch or a print from such works reproduced in a text. With the advent of photographic technologies in the nineteenth century, the photographic print and its derivatives — the lantern slide and the picture postcard — enabled the realm of the pictorial to be greatly enlarged. As the cultural geographer Denis Cosgrove remarked it is the ability of imagery to “represent geographical vision [by] communicating eyewitness knowledge and interpretation of

geographical realities” (Cosgrove 2008: 3) that enables its use to extend the aural and literary transmission of knowledge. Such imagery has, therefore, played an important part in enlarging the horizons of the viewer who may not be able to experience the reality in the field. The urban geographer Rickie Sanders has, similarly, noted the “usefulness of photographs lies in their ability to construct knowledge ... [as] photographs are a mechanism of discovery” (Sanders, R. 2019: 100). In this thesis, I follow Sanders by investigating the construction of geographical knowledge from photographic imagery.

In this regard, photography is employed as an objective recording technique. Cosgrove noted that there is a:

“Fundamental distinction [in English] between seeing and looking; the former suggests the passive and physical act of registering the external world by eye; the latter implies an intentional directing of the eyes towards an object of interest.” (Cosgrove 2003: 253)

As such, the notion of a correct spectatorship of photographic imagery corresponds to the desire to develop, in geographers, an ‘eye for the country’ a phrase I explore below. With such a disciplinary proficiency the student would be enabled to move from the status of an amateur to that of a professional geographer, as I alluded to above.

Geography, as an academic discipline, was considered a modern innovation in Great Britain at the end of the nineteenth century despite efforts by the RGS from the 1860s to alter the situation (as noted by e.g. Dodge 1899: 486 and Mackinder 1895a: 377). As such it was regarded with

suspicion, if not hostility, in traditional milieux, including the older universities such as Oxford. Within what was perceived to be an ‘elite’ institution geography was regarded as being inferior to other academic fields within that institution. This is exemplified by the fact that until 1932 the study of geography at Oxford did not lead to a degree but to a diploma (Baigent *et al.* 2020, Currie 1994:117). Geography academics, however, saw their discipline as embracing the attitudes of the scientists whose own disciplines began to flourish in the nineteenth century. To promulgate geographical knowledge, practitioners of the discipline used modern technologies, including photography, to reinforce their arguments. The particular attribute of photography which enabled the alignment of geography with natural sciences, including biology, which had developed from natural history, and geology, was the belief that, by demonstrating an objective eye outside the fallibilities of the human eye, photography’s mechanical origin enhanced its scientific applications. As McQuire states:

“the unique evidential force of the photograph depended equally on the belief that here, for the first time, representation achieved parity with direct perception” and, again, that “in an age in which machines held the promise of the future, the development of photography perfectly fulfilled the desire to invest truth in the disinterested gaze of an optical machine” (McQuire 1998: 29, 33).

It was not just the photograph *per se* that was employed by scientists to disseminate their knowledge as Lightman (2012) and Marshall (2021) have discussed in regard to other forms of Victorian visual culture. Ryan (2005) also explored the role of photography and its derivatives but specifically within the context of the dissemination of geographical knowledge. Whilst

Hayes (2018) investigated a particular derivative of photography, the glass lantern slide, within the milieu of the Royal Geographical Society (RGS). However, as Hastie and Saunders have noted that while “geographers have long been interested in popular culture” there “remain some gaps in the field with some of the biggest and most widely consumed genres of popular culture suffering from neglect” (Hastie and Saunders 2024: 685). Whilst these authors were concerned with the impact of digital media on geographical studies, there have been earlier genres which have also been subject to just such a neglect. One of these genres, the picture or view postcard, is one which I interrogate in this research. As has been noted elsewhere the postcard has, for a long time, been relegated to the ephemeral within the growth of mass culture and a widening dissemination of images (Flint 2020:184). Yet, precisely because of the wide dissemination of the postcard it was regarded in the early twentieth century as an ideal means of creating and disseminating geographical knowledge as I demonstrate in this thesis.

The ephemeral, including the postcard, is an area of research which, particularly since the beginning of the twenty-first century, has attracted attention. However, problems can arise due to the intended transitory nature of the material and its mass production. As Akerman noted in his recent discussion of cartographic ephemera “the types and formats of these objects are almost unlimited, and their numbers are prodigious” (Akerman 2021: 229). But, if the material has survived, the study of ephemera can lead to fresh

insights into canonical histories as Brownson demonstrated in her exploration of a sub-collection within the archives of the Duke of Devonshire (Brownson 2023). It is this history against the grain of the canonical, with an emphasis on the student body, that I explore in my research.

By looking at the intersection between the history of the geographical discipline and its pedagogy and aspects of the history of photography, in particular the movement into the educational setting of what was regarded as ‘popular’ visual culture, the Oxford School of Geography becomes an iteration of something more generalisable. The start and end dates of the time period under examination have been dictated by developments within the School itself, namely the introduction of the fieldwork description element into the examination for the Diploma in Geography in 1906 and the final examination for the said diploma in 1939. Since 1945, a gulf has arisen between university geography, which increasingly researches specialist areas, and non-university geography, including the scholastic arena (Bonnett 2003). By moving beyond the university itself and examining the biographical outlines of the students’ lives I narrow that gulf and explore the more intimate relationship between academic and scholastic geography before 1939.

As such, the emphasis of the Oxford School’s curriculum, and in particular its visual aspects, was directed towards the much more proximate goal of acquiring and improving skills which could be repeated in the classroom and inculcated in pupils, rather than determining a more abstract

notion of ‘what is a geographer?’ Thus, an overarching aim of this thesis is to explore that now neglected but interconnected transmission of geographical knowledge. In doing so I aim to investigate the transmedial or multimodal in pedagogical practices (Friesen 2011), that is the integration of both the visual and the verbal in the lecture theatre and the school room. However, the internal arena was not the only venue for the production and transmission of geographical knowledge and in this thesis I will make a contribution to the role of fieldwork in this enterprise. In both the university setting and the school curriculum fieldwork, or more generally outdoor work in relation to nature study as well as geography, was the location for a greater emphasis on the visual as the eye was trained to observe and interpret the landscape. These visual observations could then be correlated to knowledge acquired from written texts and the aural instruction given by the academic and the schoolteacher

An ‘Eye for Country’

The phrase an ‘eye for (the) country’, introduced above, is one which recurs throughout reflections on the sense of being a geographer, and which first occurs in the geographical literature in 1909 (Davey 1909: 93). But an appreciation of the value of sight to geographers was enunciated by Herbertson in 1896 when he asserted that in addition to the aural lesson “the eye must be trained as well” (Herbertson 1896a: 579). Prior to this, the phrase was attributed to skilled engineers establishing the best route for a railway

(Parry 1895: 573) and to field archaeologists wringing evidence “from the very daisies” (Anon. 1905: 611). A version was also applied by Harrison to the development of a “pair of geological eyes” arrived at by “much walking” (Harrison, W.J. 1878: 9–10). However, the most frequent use of the term in the nineteenth century appears in conjunction with military tacticians assessing their field of activity. What is apparent from a study of the geographical literature from the late nineteenth and early twentieth centuries is the emphasis on moving away from the repetition of lists of names to an understanding of the interconnectedness of the physical world with the human environment (e.g. Editors 1902). This understanding was to be reached by engaging in informed observation and thereby incorporating an ocular aspect of the visual into geographical knowledge. The lantern slides of distant landscapes were used to demonstrate the applicability of informed observation in all situations. But within the context of the geographical fieldtrip, the term ‘country’ refers to the “actual land surface” (Herbertson 1896a: 579), that is the landscape or topography or terrain presented to the viewer and an ‘eye for country’ becomes the outcome of a geographical training in the interpretation of the view so presented. As such a trained eye becomes a “skill in ‘regional synthesis’ and reading the synthesis in the landscape in front of you” (Bruinsma 2021a: 228 quoting Philo interview 2019). However, the acquisition of a trained eye went hand-in-hand with the acquisition of skills necessary to record and report the visual observations.

These skills involved the various means by which a geographer was enabled to see the country before them in a disciplined and disciplinary manner by taking time to observe in the field and consider the ways that would allow for a geographical interpretation of what was observed, e.g. field sketching and photography as well as map-making.

In order for school pupils to acquire such a visualized geographical knowledge it was realised that first it would be necessary to train teachers “to do the things his [*sic*] pupils should learn to do” (Herbertson 1896a: 582). The RGS had been concerned with the lack of sound geographical education in British schools and the report submitted by Keltie in 1885 highlighted the deficiencies in this area when compared to the situation on the European continent. In America, also, there was perceived to be a need for the “well-trained eye of a good teacher” (Dodge 1896: 154).¹ This thesis will contribute to an understanding of what was entailed in training the specialist geography teacher. Attention will thus be given to the onward transmission of a visual literacy and its contribution to the promulgation of a wider disciplinary outlook

Although there have been investigations into the textual history of geographical knowledge with regard to school textbooks (Marsden 1988, Maddrell 1998, Sidaway and Hall 2018) and an aspect of the visual

¹ Richard Elwood Dodge (1868–1952), professor of geography, Teachers’ College, Columbia University, New York 1897–1916, founding editor of *Journal of School Geography*, 1897.

production of geographical knowledge in the form of models (Ploszajska 1996, Tobin *et al.* 2024), there has been little attention to the role of specific aspects of the photographic, in particular the appropriation of popular cultural imagery, in the British geographical knowledge production arena. Those that have investigated this area have tended to concentrate on an imperial aspect (Ryan 1995, 1997, Moser 2017a, Meneghini 2021, 2022) rather than consider a more general use of a variety of photographic products. Recent work on museum collections has also addressed the “shifting meanings and uses of objects as they [have] travelled through institutional networks” (Driver *et al.* 2021: 8). Such shifts of meaning inform the biography of objects as I discussed above. The thesis aims to address the lacuna of the more general use of the variety of products by investigating the sources of photographic images that are present in both archives of the Oxford School of Geography. Recent attention to the categories of visual material in geographical textbooks (Hilander 2023) is shown, in this thesis, to be an extension of the visual material present in both Oxford archives. Here, I build upon work defining a category of photographic imagery as ‘disciplinary vernacular’, that is visual material derived from direct personal experience in the field by exponents of a discipline. I also seek to expand the discussion of the range of visual material that derived from commercial photography and was exploited by early twentieth century geographers, both academic and scholastic.

The extensive holdings of photographic material held by institutions, such as the RGS and the Geographical Association, create opportunities for investigating what, recently, has been termed the “Geographers’ Gaze” {<https://geography.org.uk/the-geographers-gaze-project/>}. The phrase ‘geographers’ gaze’, in the context of the visual, is, surely, an updated and expanded version of the phrase an ‘eye for country’ and an indication that geographers have a particular way of viewing their surroundings. Although the Geographical Association holds some 10,000 slides only a very few, just 25, have been digitized to provide teaching material for contemporary lessons investigating themes such as coastal erosion and changes in both agricultural practices and urban retailing. The RGS, meanwhile, has discovered the commercial potential in their ‘Picture Library’ of some 500,000 photographic images, including negatives and slides, and artworks {<https://images.rgs.org/>}. However, the research potential of the RGS’s collections has been investigated by Ryan, as he noted in 2000, and Hayes (2016) amongst others {<https://www.rgs.org/our-collections/research-using-our-collections/collaborative-doctoral-research>}. Ryan’s comments relating to the “re-exposing [of] photographs” whereby “new configurations and narratives” can be explored (Ryan 2000: 123) highlight the potential of such large national collections. Within research in a photographic archive attention to the contextual aspect can yield results on “the status and circulation of photographs as both [a] form of visual representation and material objects”

(Ryan 2000: 123). The Oxford geography teaching collection of lantern slides is more modest, at just over 3,000, but I intend to give attention to the contextual aspect of the Oxford archives and reveal information concerning the status of the visual in the production of geographical knowledge in the early twentieth century.

By exploring the photographic in the archives, I engage with the members of the *Antipode* 2003 roundtable on geographical knowledge and visual practices. In particular, with Ryan and his discussion of the “interconnected domains of production and consumption” together with the roles of the “author, image, audience and space of display” (Ryan 2003: 233). Above all, Driver’s assertion that “integral to the theory and practice of geographical knowledge” is the “thinking about what to observe and how to observe” (Driver 2003: 227) becomes central to my research. This thesis explores some of the techniques developed “to capture what the eye could or should see in a landscape” (Driver 2001: 49). In his contribution to the roundtable, Matless draws attention to a 1902 article by Herbertson in which the inclusion of a ‘lantern’ was regarded as an essential piece of equipment for a university geography department (Herbertson 1902a: 131). As Darroch observed in 1906 “by the use of models, of pictures, of lantern-slides, and other concrete means we may widen the intellectual horizon of the child” (Darroch 1906: 489).² By investigating the use of varied visual media in the

² Alexander Darroch (1862–1924), professor of education, Edinburgh.

production of geographical knowledge, I extend the study into a more general consideration of the visual in the training of the specialist geography teacher.

Early Canonical Figures in the Oxford School of Geography

Here it is necessary to introduce two people who are regarded as central in the canonical history of the enterprise of Oxford geography. It is probable that the most widely recognised is Halford John Mackinder (1861–1947) who was appointed ‘Reader in Geography’ (equivalent today to a university associate professor) at Oxford in 1887 and as the first director of the Oxford School of Geography in 1899. Withers has raised doubts about Mackinder’s “degree of commitment to Oxford” but not about his “zeal for geography” (Withers 2001: 86). Those doubts are understandable, or as Scargill noted he was regarded as “having too many irons in the fire” (Scargill 1976: 450), when it is considered that as well as holding his positions at Oxford Mackinder was giving university extension lectures throughout England, principally in the north, from 1885. He was also appointed as lecturer in geography at the newly founded London School of Economics in 1895. In addition, he was holding the post of principal, between 1892 and 1903, at the University College of Reading, founded in 1892 as the centre for the Oxford University extension lecture scheme.

Such academic appointments were augmented in 1900 by his standing, albeit unsuccessfully, as a parliamentary candidate for the constituency of Leamington and Warwick. He also became involved, from 1902, with the

Colonial Office Visual Instruction Committee (COVIC) based in London as well as becoming a director of the London School of Economics in 1903. These activities, all located away from Oxford, led to his formal resignation from the Oxford School of Geography post in 1905. It has been noted that Mackinder was originally a proponent of a London-based institute of geography, modelled on continental lines (Cantor 1962: 31) which was not taken up and was shelved in favour of extending the involvement of Oxford and Cambridge Universities. Mackinder only ever delivered one course of lectures per term whereas his assistant was, by the autumn of 1902, delivering three such courses in addition to providing weekly practical classes in both regional geography and geomorphology.

Mackinder's assistant, appointed in 1899 and who succeeded him as director in 1905, was Andrew John Herbertson (1865–1915) and is the other central protagonist in the canonical early history of the Oxford School of Geography. Withers, having questioned Mackinder's commitment to Oxford, goes on to consider that it was "the energies and scholarship of Herbertson" that enabled geography to become established at Oxford (Withers 2001: 86), whilst Scargill has made clear that the "day-to-day running [of the School] came to depend increasingly on Herbertson" (Scargill 1976: 451).

This thesis will demonstrate that under Herbertson's directorship not only was the curriculum enlarged to specifically include and examine field work but also that the membership of the student body was radically enlarged

beyond Mackinder's original intention of "a select few" (Mackinder 1895b: 26) which in his mind was most likely to be "two or three men with a strong inclination to geography" (Scargill 1976: 445 quoting Letter from Mackinder to the Council of the RGS, 1 November 1888). Herbertson was also active in the Geographical Association, an association specifically founded for geography teachers. This institution is one which I show to be important in the promulgation of geographical knowledge beyond academia and in particular with regard to the use of the lantern slide.

In challenging the received canonical history this thesis will engage, not just in the biographical collective of the students but also in the institutional biography of the School. By extending recent work which investigated student production of geographical knowledge in the second half of the twentieth century (Bruinsma 2021a), the thesis not only contributes to this field of research but also to the ongoing extension of biographical studies in the history of geography, both collective and institutional as outlined by Baigent (2024). Part of this contribution will be to include the male students, a cohort which has not attracted as much attention as researchers have sought to uncover the specific history of the female cohort (e.g. Baigent *et al.* 2020).

Resumé of Chapters

Following this introduction, Chapter 2 reviews the literature in both the field of the history of geography and of the history of photography. The first part considers the evolving geographical pedagogy of the early twentieth

century as well as the emergence of new paradigms within the discipline. It then moves to a consideration of firstly micro-history and archival research within geography before reviewing some of the practical problems that are encountered in such research. The second part transfers the attention to the history of photography and its relation with popular visual culture. In relation to the presence of overseas photographic imagery the concept of the 'picturesque' within photography is explored. Particular aspects of popular visual culture are then interrogated, namely the educational use of the lantern slide and the more recent exploitation of the picture postcard. Finally, I move into a review of the use of 'disciplinary vernacular' photography.

Chapter 3 expands on the sources used to undertake the empirical research upon which this thesis rests. In considering the methodology involved, a review of recent developments in collective biography is undertaken. From a methodological perspective the data collection effort in itself constitutes a significant and original contribution within this thesis. Each substantive chapter of the thesis, elaborated below, develops aspects of the constructed databases presented in the appendices. The databases, in themselves, will provide extensive supplementary material to augment traditional library cataloguing methodologies and will enhance the possibilities of further research.

The next four chapters and first two appendices present the results and analysis of my empirical research with chapters 4 and 5 discussing the glass

lantern slide teaching collection. These two chapters investigate the sources used to compile the collection. In them, I elaborate various themes which emerge including the mobility of images across presentation modes and the differences in captioning within those modes which influenced the reception of the image according to the audience involved. Photographs, therefore, are shown not as static and fixed images with a singular meaning, but as objects which circulated within multiple contexts and as such a contribution is made to the biography of the image. Commercial, artistic and academic contexts are explored, with particular attention paid to the relationship between text and image as photographs were repurposed by different users. As such, I contribute to an understanding of the concept of ‘visual literacy’ within geography and the development of ‘informed observers’ for the new regional geography as practised and promulgated by the Oxford School of Geography in the early twentieth century. Other themes which emerge include the role of the Geographical Association in the creation of lantern imagery for the use by schoolteachers. Concomitant with this role is the repurposing of photographic imagery held by the RGS as a record of the travels of its members into material considered suitable for presentation in school geography lessons.

Chapter 6 investigates the material present in the archive of student regional descriptions. In doing so I invoke a student-focused aspect to the institutional history of the Oxford School of Geography. The work expected of the diploma students in the compilation of the material required for their

regional descriptions would, now, be regarded as being illustrative of Marcus's (2023) concept of 'autogeography' with regard to engaging with geographic thought and knowledge via personal field work. This chapter also continues to develop the concept of a disciplinary vernacular photography as evidenced by the use of students' personal photographs. It, also, brings to the fore a pedagogical use of the pictorial view postcard, a genre of popular culture which has received little attention by geographers to date.

Chapter 7 diverges into a more quantitative assessment of the Oxford School of Geography student body and their subsequent careers. To enable such an assessment, I engage in creating a collective biography for this student body, which is tabulated in Appendix 3. As well as using traditional genealogical archival material I pay attention to quasi- or semi-legal archival sources including documents from the Teachers' Registration Council, 1914–1948 and the official gazette of Oxford University. This collective biography enables me to record the transmission of geographical knowledge beyond Oxford to the wider educational stage, principally but not exclusively England and Wales. As Johnston noted in his introduction to a discussion of the relationship between academic and scholastic geography “geography emerged as an academic discipline in British universities in response to demands for trained teachers of the subject in the country's burgeoning secondary schools and their curricula formed a seamless transition from one to the other” (Johnston, R.J. 2019: 682). I, therefore in this chapter, present a 'pyramid of

transmission' to represent the ever-widening influence of the small number of academics that constituted the staff of the Oxford School, never more than four before 1939.

Finally, chapter 8 brings the thesis to a conclusion where I draw together the various strands of research and suggest possible future investigations that could be made within these archives. My research illustrates the value and necessity of paying attention to physical archives, whilst acknowledging the value of digitization programmes. It, also, extends the consideration of the student body as an important reservoir of geographical knowledge which, in the early twentieth century, was being disseminated throughout the scholastic arena by teachers trained within the universities. As Bruinsma has said “not the individual small voice of every single student” but the “choir of them all together” (Bruinsma 2021a: 20) is the distinctive aspect of collective biography which is employed in this research. My thesis will, by paying attention to the photographic within the creation and dissemination of geographical knowledge, demonstrate the value of knowing ‘how to look’ and how academics sought to develop an ‘eye for country’ within their students.

Chapter 2

Literature Review I: Geographical Aspects

Introduction

My thesis draws together several strands within both the history of geography, in particular the paradigm of regional geography, and the history of photography, in particular the development of various forms of popular visual culture — namely the lantern slide and the picture postcard — as well as considering the pedagogical implications of the use of photographic material in geography during the early twentieth century. This review provides a consideration of the broader context of the contemporary European development of the concept of regional geography and places the Oxford School at the forefront of the discipline in the UK.

I referred in the introduction to the concerns of the RGS with regard to the state of geographical education within the United Kingdom. These concerns led to the Oxford appointments of Mackinder, also noted in the introduction, and resulted in the Oxford School of Geography being established as the first dedicated geography department in the UK in October 1899. By offering a Diploma in Geography, not a degree, the Oxford School was able to attract female students as the requirement to be a full member of the University of Oxford was not applied to diploma students. In chapter 7 I investigate in more detail the make-up of the student body, based on my

research tabulated in Appendix Three. The first cohort of just four students was examined in 1901 but the compulsory field work description was not introduced until 1906, after Mackinder had relocated to London and Herbertson became the School's director. Following the introduction of the undergraduate degree in geography in 1932 interest in obtaining the diploma waned and the last student was examined in 1939.

By concentrating on this single university department, which can be regarded as a pioneer for university-based geography in the UK, in the early twentieth century I am able to uncover, what might be considered, a small history. This concept, discussed further below, has come to the fore as disciplines, including geography, consider the local in their focus as well as the global or national. However, this change in focus does not exclude the larger scale as both are intertwined and in Oxford's case the 'small' history has much wider implications for the discipline, due to the employment of the majority of the students in the secondary school sector throughout the UK.

As my research investigates two departmental archives it is necessary to consider the use of archives in general within geographical research, an extremely extensive field which I briefly interrogate. I, also, consider the literature around the practical issues that can arise when dealing with archives and archival material.

The archives I investigate in the following chapters are explored for their photographic content and various aspects of photography. This

exploration has resulted in what was formerly regarded as popular visual culture, lantern slides and picture postcards, being highlighted in the second part of this review. As the department developed so too did the technology available to its members so that it becomes possible to explore the development of a disciplinary vernacular genre of photography, a genre I investigate further below. This genre is in contrast to the initial use of commercial overseas, including colonial, photography but both genres contribute to the available imagery present in the departmental glass lantern slide teaching collection. The students, meanwhile, used both their own photography as well as the imagery available on commercial picture postcards in their regional descriptions which I discuss in detail in chapter 6.

2.1 History of the Discipline of Geography and Geographical Education

My research is looking at an intersection between the history of geography as an academic discipline and the history of the teaching of geography and both of these areas have an extensive literature within a UK as well as a global setting. Within a broader overview, Withers discusses the ‘emergence’ of geography in Britain from the appointment of Mackinder to a readership in the subject at Oxford in 1887 until the establishment of the Institute of British Geographers in 1933 (Withers 2001: 83–98). When I introduced both Mackinder and Herbertson in the introduction, I noted Withers’ doubts over Mackinder’s “degree of commitment to Oxford” and the more practical role played by Herbertson (Withers 2001: 86). Hayes (2025)

has re-examined Mackinder's contribution to geographical knowledge in general by considering his entire life span, but my thesis concentrates on his, relatively brief, only five years, involvement with the Oxford School of Geography.

Johnston, similarly, reviews the early developments at Oxford in some detail within a larger perspective of the emergence of the academic discipline (Johnston, R.J. 2003: 49–52). He describes an almost symbiotic relationship between the grammar and other secondary schools which employed the majority of the university graduates and notes that across all UK geography departments the principal role was “to train individuals to become teachers in the country’s grammar schools” (Johnston, R.J. 2003: 55–56).

Patmore, in giving a personal perspective on the state on geography in Britain in the interwar years, notes the pervasiveness of a regional orientation concerned with “a very real world” which engendered a “sense of place”. He concludes that “geography was concerned with the tangible landscape, and an eye for country was the most valued of the geographer’s tools” (Patmore 1987: 183). My research looks at this concept of the ‘eye for country’, a phrase the origin of which I reviewed in the introduction, and investigates how the students in the Oxford School of Geography were trained in its acquisition. Putnam noted in his 1951 exposition on “geography as a practical discipline” that there were “three principal processes involved in the gathering of geographical knowledge, namely, observation, recording and

interpretation” (Putnam 1951: 396). It is with the training of Oxford students to become geographical observers that this thesis is concerned. In the matter of recording those observations Putnam advocated the “cultivation of the art of field sketching” and notes that maps do not “constitute a full geographic record but should be supplemented by pictures” (Putnam 1951: 403). His observation that “it is a particularly foolish geographer who neglects to take plenty of illustrative photographs including the common and more or less monotonous features of the area under study” (Putnam 1951: 403) strikes a chord with my research as I investigate the adoption of the photographic image in the early twentieth century by both academics and students. It is the evidence of the photographic archives from the Oxford School of Geography that enables me to consider this adoption in depth.

Although not explicitly concerned with school geography curricula my research does concern the transmission of geographical knowledge from the university to the school classroom as I discuss the careers of the Oxford School of Geography students in chapter 7. Marsden has noted that in order to “gain recognition for [geography] in the secondary system” lecturers in geography departments entered the textbook market (Marsden 1988: 328) and that the “critical name was Herbertson” (Marsden 1988: 331). However, it was not Andrew John Herbertson alone who authored school textbooks as he was joined in this venture by his wife, Fanny. Her contribution, both to the production of school texts and to the Oxford School more generally, is

discussed in detail in Baigent *et al.* (2020: 56–59) and in Maddrell (2009: 127–129). In her examination of geography school texts before 1918, Maddrell refers to the “early 20th-century collection of school texts at the Oxford School of Geography” (Maddrell 1998: 82) and notes that “these texts also reflect the teaching interests of geography lecturers in universities where their main foothold was as part of [...] education courses, such as Oxford” (Maddrell 1998: 96).³

Walford (2001), in his discussion of *Geography in British schools* from 1850, devotes more space to Mackinder than he does to Herbertson. However, he has recently been criticized for not paying “sufficient attention to [geography’s] problematic treatment of people and places” (Puttick 2023: 29–52). In chapter 5 I discuss the presence of overseas imagery within the lantern slide collection and the probable provenance of that imagery. However, due to the lack of lecture notes or transcripts I am unable to place this imagery in the context of a verbal discourse and do not, therefore, address Puttick’s concerns around an imperialistic geography.

Ploszajska does address this concern in her 1999 volume concerning *Geographical teaching and learning in English schools, 1870–1944*. Although primarily interested in the textbooks of the period she also considers the use of the lantern slide (Ploszajska 1999: 165–169) as she asserts that

³ As part of the relocation of the Oxford School of Geography’s library into the Radcliffe Science Library this collection of over 400 items was redistributed into the main collection during 2005 and 2006. (S. Bird, pers. comm.)

there was agreement, at the time, that an “appeal to the eye was among the most effective means of capturing pupils’ interest in the subject and conveying geographical ideas with clarity” (Ploszajska 1999: 178). It is just such an ‘appeal to the eye’ that I am investigating in this thesis. Ploszajska, also, devotes a whole chapter to the role of fieldwork in school geography in her period (1999: 221–271; see also Ploszajska 1998) and fieldwork formed an essential part of the academic timetable for the Oxford students as well as a compulsory part of their diploma examination as they developed their ‘eye for country’.

2.2 History of University Geography in the UK

For individual British university geography departments general histories often appear at significant milestones in their existence, e.g. Clout (2003a) for the centenary of geography at University College, London and Stoddart (1989) for the Cambridge centenary. Similarly, the centenaries of several Scottish departments were marked by specific publications, e.g. Withers (2008) for Edinburgh, Lorimer and Philo (2009) for Glasgow and for Aberdeen, Philip and Edwards (2019). Since the late twentieth century there has been an increasing awareness of the role of women in these histories, although Tylecote was exploring the early female presence at the University of Manchester decades previously (Tylecote 1941). One milestone for women was the centenary of their full admission to the University of Oxford in 1920 and thus their ability to obtain degrees from the institution. This perspective,

wider than geography which did not institute a degree for geography until 1932, will be discussed in Baigent (forthcoming).

In discussing female academics at the University of Cambridge, where women did not become full members until 1948, Jöns notes the limitations of contemporary social mores and the widespread societal expectations of the role of women in the domestic realm (Jöns 2017). I explore the impact of these expectations, in particular the ‘marriage bar’, on the careers of the Oxford female students in chapter 7. In *Complex locations* Maddrell (2009) discusses a number of arenas in which women, principally British women, contributed to geographical knowledge. These range from overseas travellers, such as Isabella Bishop (née Bird), to their inclusion in official war work, such as Mary Marshall’s involvement with the Naval Intelligence Handbooks of World War II. I do not discuss specific imagery from Bishop’s travels in China although some are present in the lantern slide collection, whilst Marshall obtained the degree in geography from Oxford in 1939 rather than the diploma. Of the seven early university academics Maddrell discusses (Maddrell 2009: 152–187) three were holders of the Oxford Diploma in Geography, i.e. MacMunn, Hosgood and Taylor.

However, of greater relevance to my research is the chapter devoted to “women in geographical education” (Maddrell 2009: 123–151) where a quarter of her examples are former Oxford School of Geography students. She notes that one of these students, Gladys Maud Marten (1878–1955, diploma

with distinction 1912) is an example of a “mature teacher of geography gaining subject accreditation” (Maddrell 2009: 137), an observation that is relevant to my research. She also notes that the “Oxford School played a formative role in shaping geographical knowledge and how it was taught, not least with Andrew Herbertson heading the GA” (Maddrell 2009: 148).⁴

Maddrell's comment that MacMunn's 1907 publication of a study of Essex and Cumberland reflected the “central place of regional survey in the Oxford diploma course” as well as the “demand from teachers for good regional data” (Maddrell 2009: 156) highlights an important aspect of the Oxford students' curriculum and the onward transmission of the geographical knowledge they acquired.

I noted above the founding of the separate university department of the Oxford School of Geography as the first dedicated university department of geography in the UK. Its histories have included both the centenary milestone of its establishment (Scargill 1999) and the role of individual male academics, e.g. Gilbert on Herbertson (1965) and both Gilbert (1951a) and Coones (1987) on Mackinder. In addition, some male academics have been memorialized in *Geographers: Biobibliographical Studies* volumes, e.g. Kearns, G. (1985) on Mackinder, Jay, L.J. (1979) on Herbertson, Freeman, T.W. (1979) on the second incumbent of the chair in geography, E.W. Gilbert, and Smith, C.G. (1997) on the climatologist W.G. Kendrew. Both Gilbert and

⁴ The Geographical Association founded in 1893 and discussed further below.

Kendrew were also holders of the Oxford diploma. More recently there has been an exploration of the presence of women in the department from its inception (Baigent *et al.* 2020). This exploration took the form of a collective approach with representative biographies to illuminate the whole. Collective biography forms an important part of my methodology as I explore the subsequent careers of the Oxford students.

As part of his edited review of the state of British geography in the inter-war years Robert Walter Steel (1915–1997, first-class honours degree 1937, member of academic staff 1939–1957) includes a personal account of the expertise expected of Oxford students at that time. This included a thorough knowledge of the French language as the reading of original texts containing the French concept of regional geography was standard (Steel 1987: 63). I allude to this expectation of language expertise in regard to the visible captions of the lantern slides in chapter 5 (also in Squibb forthcoming). Steel also comments on the extent to which fieldwork was incorporated into the Oxford curriculum (Steel 1987: 69–72) and this forms the basis of the second archive I am investigating in my research.

Whilst all of these historical studies have concentrated on either the institution itself or the influence of leading academics, principally men, there have been very few which highlight the student body as an area suitable for research. This has recently been redressed by Bruinsma in her work in the archives of the geography department at Glasgow (Bruinsma 2021a, 2021b).

By concentrating on the period after World War II, she has been able to investigate the students' reception of new and developing trends in geographical thought. In contrast, by concentrating on the first part of the twentieth century, I am able to explore in detail the students' use of illustrative material as there is a uniformity of conceptual approach to their fieldwork.

Because Oxford was the UK's first university department of geography its history also intersects with those of major national institutions devoted to the subject, e.g. the Royal Geographical Society (Mill 1930; Cameron 1980) as the RGS was the catalyst for the founding of the department (Scargill 1976). Other institutions, such as the British Association for the Advancement of Science (BAAS) and the Geographical Association, also intersected with members of the Oxford School. I discuss the role of the BAAS below as well as interrogating the role of photographic imagery emanating from this institution in chapter 5. The role of the Geographical Association is highlighted in the next section. Early Oxford academics, including Herbertson and Ogilvie, were often both Scottish and also had strong ties to Edinburgh and Geddes's Outlook Tower, associations which helped to foster links to the Royal Scottish Geographical Society (Adams *et al.* 1984). This enabled Herbertson, in particular, to promote the work of the diploma students in the pages of its journal, the *Scottish Geographical Magazine*.

2.3 The Emergence of a New Pedagogy in Geography

The rationale for the founding of the Oxford School was the necessity, as the RGS perceived it, to establish geography on a firm subject footing within the education system of the country. The Oxford Diploma in Geography was, therefore, envisioned as providing a recognised subject qualification for secondary schoolteachers. In tandem with this push from the RGS was the establishment in 1893 of the Geographical Association, specifically for geography teachers (Balchin 1993). Although conceived, initially, by elite public schoolmasters with a remit to collaborate on the circulation of visual materials, within seven years it had opened its membership to all teachers of geography irrespective of age, gender or type of school. This was a development of particular relevance to the Oxford School as among the founding members of the Geographical Association were the first two directors of the Oxford School of Geography, Mackinder and Herbertson. Herbertson was also the editor of the association's journal, the *Geographical Teacher*, until his death in 1915.

Within the pages of the early volumes of the *Geographical Teacher*, there are allusions to the new style of teaching that Oxford was engaged in promoting to its students. These references contrast the former style of lists with the new style which encouraged “all progressive teachers” to train their pupils to “observe for themselves” and further that “all competent teachers of geography” should begin by giving their pupils “direct personal knowledge

and not a mere book knowledge” (Bryce 1902: 52). The former style was lambasted by Lomas⁵ when he referred to the fact that:

“Still in many schools we may hear vain repetitions which are and can be only empty and meaningless names to the reciter, perhaps in no subject is this vicious method practised so much as in the teaching of geography.” (Lomas 1904: 158)

The editors, A.W. Andrews⁶ and A.J. Herbertson, gave the following rationale for their publication:

“The [*Geographical*] *Teacher* in fact exists as a protest against the dry-as-dust teaching of geography, in which names of towns and lists of products are supposed to give an adequate knowledge of the subject, and no attempt is made to picture to the learner the constantly varying outward conditions with which men fight for their living in every quarter of the globe.” (Editors 1902: 172)

The incorporation of excursions into the new method of teaching was a topic of several articles including one by Beveridge in which he refers to Herbertson’s involvement in “an experiment in education by the method of Regional Survey” undertaken in the Board Schools of Dunfermline, (12 miles north west of Edinburgh across the Firth of Forth).⁷ Herbertson was involved in this ‘experiment’ between 1897 and 1899 when he was appointed to the newly instituted Oxford School of Geography (Beveridge 1902: 79–80). One of the first cohort of diploma students who was both the only female and already a practising teacher, Joan Berenice Reynolds, extolled the use of both

⁵ Joseph Lomas (1861–1908) obituary *Birkenhead News* Dec. 23 1908, 31(2930): page 2, col. 2.

⁶ Arthur Westlake Andrews (1868–1959) University Extension Lecturer in Geography; Lecturer at the Oxford Summer Vacation Courses 1908, 1910 and 1914; founding member of the Diagram Company, discussed in chapter 5; Biographies: *Climbing Club Journal* 1960, 13(85): 105–108 and 1997, 23(116): 65–74.

⁷ Board Schools were local education authority schools set up in the late nineteenth century to provide free education for all children up to the school leaving age initially set at 12 later raised to 14.

the class excursion and the regional method of teaching in her articles (Reynolds 1901a, 1904).

The use of new technologies as aids to the new method of teaching was also the subject of articles in the *Geographical Teacher* including the use of the lantern to display photographic images to a class. As Carter noted when he stated that although “many teachers still delight in the long lists of the old-fashioned text-books, yet many are trying to vivify their work instead of presenting a mass of disconnected dry bones” (Carter 1901: 27). Carter was taking advantage of the democratization of both photographic technology, with the advent of the roll film camera, and of transport technology in the form of the bicycle — “with these two machines the teacher of Geography can do some good solid work” (Carter 1901: 27). Keltie, when reviewing the work of the RGS in 1917, summed this up as follows:

“The old dull text-books and featureless maps have almost disappeared and others modelled on the reformed conception of the subject have taken their place; other appliances, unknown here before, photographs, slides, models, simple instruments, have been introduced, and in many cases the pupils are taken into the field for practical work.” (Keltie 1917: 364)

Steel (1987) referred to the emphasis placed on regional geography and the role of the Oxford School of Geography has been explored in the context of the wider promulgation of this concept, a disciplinary approach which Oxford championed into the second half of the twentieth century (Clout 2003b).

2.4 Regional Geography

Regional geography emerged during the late nineteenth century as a concept, not necessarily labelled as such, which was the result of growing dissatisfaction with the status of geography within educational establishments at all levels. This ‘new geography’ was espoused across Western Europe and North America with Germany taking the lead in the expansion of geography within the university sector from the 1870s.

In German the term ‘*Länderkunde*’ was used when discussing “the appreciation of the influence on the state and conditions of culture in a country by its physical character” (Keltie 1885: 133 quoting Partsch).⁸ In Great Britain this term was usually translated as ‘regional geography’ although an earlier word ‘chorography’ was available. Chorography, (as a term derived from the Greek *χῶρος* (*khōros*), place and the Latin *graphia*, writing), was principally used by writers of English county histories in the seventeenth and eighteenth centuries but continued to have currency into the nineteenth century. Platt explored this tradition in his introductory chapter concerning the writings seeking to identify and place the Thames estuary in relation to London (Platt 2017). The German born Ernst Ravenstein was ‘happy’ for “regional geography to be employed when we really mean chorography” (Ravenstein 1905: 311).⁹ However, on more than one occasion

⁸ Joseph Partsch (4 July 1851–22 June 1925), University of Breslau, 1885–1905; University of Leipzig, 1905–1922.

⁹ Ernst Georg Ravenstein (30 December 1834–13 March 1913), born and died in Germany but a naturalized British subject and lived in England from 1855.

Mackinder asserted that “chorography, our nearest English equivalent to *Länderkunde*, is a clumsy expression” and that it was “a heavy word that will never take root, and the nearest approach to it is regional geography” (Mackinder 1895a: 371; 1905: 312).

In France, in the last quarter of the nineteenth century, Paul Vidal de la Blache¹⁰ espoused a ‘new geography’ which he defined as:

“The study of the interaction of physical and human processes, best appreciated at specific locations on the face of the Earth and giving rise to particular ways of life [*genres de vie*], landscapes [*paysages*] and spatial configurations, commonly recognised as ‘regions’. He insisted that this [...] was rather a science that demanded personal experience of, and investigation in, the field.” (Clout 2009: 1)

This led to approaches which inquired into the uniqueness of particular regions and by integrating the study of place, work and family or folk looked to establish the ‘personality’ of a region.

In the British Isles Mackinder’s paper on the “scope and methods of geography” (Mackinder 1887) also laid the foundations for a new approach to geography which emphasised the interconnectivity of people and the natural world. As one of the discussants of the paper commented “geography helped to teach the interdependence of knowledge” (Dunn 1887: 167).¹¹ D.W. Freshfield in an address to the Geographical Section of the BAAS in 1886 had already asserted that “geography is the comprehensive name for the study of man's physical environment on the surface of this planet and of the interaction

¹⁰ Paul Vidal de La Blache (22 January 1845–5 April 1918), University of Nancy, 1872–1877, *École normale supérieure* (Paris), 1877–1898, Sorbonne, Paris, 1898–1909.

¹¹ Thomas William Dunn (1837–1930) Classics Tripos, Cambridge, 1864; Assistant master, Clifton College, Bristol, 1868–1878; Headmaster, Bath College, 1878–1897.

between it and the human race” and that the subject “co-ordinates the sciences which deal with different classes of natural objects, such as anthropology, zoology, botany, geology, meteorology” thus supplying a “frame in which to exhibit and review the local relations and interaction of these natural sciences” and enabling an understanding of the “reciprocity between the physical constitution of countries on the one hand, and the development of their people and States on the other” (Freshfield 1886: 699).¹² Joan B. Reynolds, referred to above, endorsed Dunn’s comment when she stated that “one of the great aims of regional geography is to aid the correlation of school subjects” (Reynolds 1904: 226).

Herbertson was more influenced by German methodology and the development of geography as a science as he had graduated PhD from the University of Freiburg-im-Breisgau in 1898.¹³ The regional concept was elaborated by Herbertson in his papers on ‘natural regions’ (Herbertson 1905a, 1913), and his work in this area has recently been revisited by Simpson, T. and Hulme (2023).

His ideas led to attempts to classify and divide the planet’s surface into large regions in which climate, soils, and vegetation were similar. From the seminal papers by Herbertson in 1905, 1912b and 1913 through its extension

¹² Douglas William Freshfield (27 April 1845 – 9 February 1934); president Geographical Association, 1897–1911; president Geographical section, BAAS, 1904; president RGS, 1914–1917.

¹³ PhD (Philosophy Doctor) - This degree was not introduced in Oxford until 1917 where it is known as DPhil (Doctor of Philosophy).

into vegetational regions (Selwood 1925), and ‘human’ regions (e.g. Fleure 1919) the region was examined from many angles. It was also pressed into service for a variety of end uses such as the political units suggested by Fawcett which could be exploited by planners (Fawcett 1919).¹⁴ All of these regions would then form the basis for a more scientific understanding of differences between human societies.

In the 1901 Hilary Term, H.N. Dickson was lecturing on “Climatic regions of the globe” and in that autumn Herbertson, now with the specific title of ‘Lecturer in Regional Geography’, lectured twice weekly on “Regional geography”.^{15,16} During the 1910 Vacation Course for School Teachers Herbertson gave a series of lectures on “Major natural regions and their significance in teaching geography” (*Oxford University Gazette*, 31(1005): 257 (1901); 32(1026): 31(1902); 41(1326): 537(1910)). However, Herbertson had been lecturing on the concept of the region for over a decade as the *Geographical Journal* reported in 1895 that at the Edinburgh Summer Meeting:

“Mr. A. J. Herbertson, the lecturer on geography at Owens College, Manchester, will give six lectures on ‘Edinburgh and its Province’ a course on regional geography which

¹⁴ Charles Bungay Fawcett (1883–1952) Oxford Diploma in Geography (with distinction) 1912; full details of academic career in *Geographers Biobibliographical Studies* 6: 39–46.

¹⁵ Hilary is the University of Oxford’s nomenclature for the Spring Term.

¹⁶ Henry Newton Dickson (24 June 1866–2 April 1922) Observer, Ben Nevis Meteorological Observatory; Physicist, Royal Aquarium Plymouth, 1891; Doctor of Science, New College, Oxford 1903; Professor of Geography, Reading University, 1906–1920; President, Royal Meteorological Society, 1911–1912; President, Geography Section of British Association, 1913; Head, Geography Section of Naval Intelligence, Admiralty, 1915–1919.

should stimulate the hearers, many of whom will be teachers, to obtain a firmer grasp of the principles of geography.” (Anon. 1895b: 599)

In the time period under consideration the Oxford School of Geography’s geographical praxis was uniformly that of regional geography. Consequently, a key element for Oxford students was the ‘Geographical account (or description) of a selected area’, which was introduced in 1906 and formed a compulsory part of the Diploma and Certificate courses offered by the Oxford School of Geography. It remained compulsory in the Oxford Geography Honours School until 1969 and a specified option until 1980. However, the regional approach was seriously challenged in the wider discipline from World War II onwards. Regional geography, by emphasising the integration of both the physical and human aspects of the subject, presented an holistic approach to the discipline producing a synthesized outlook.

In his 1923 inaugural lecture as Reader in Geography at Edinburgh University, Ogilvie, who had been a staff member at Oxford before World War I, declared that regional geography was an “immense field for new work” as “attention is concentrated upon an area more or less restricted”; he also asserted that such research could “only be carried out on the ground — it is a field study” (Ogilvie 1924: 66). This assertion by Ogilvie was emphasised in Oxford as the students were expected to conduct the research for their regional description in the selected area and to illustrate the subsequent text. It is this practice which has resulted in the material present in the second archive

I investigate in this thesis. As a former president of the Geographical Association, E.J. Russell, noted in his introduction to Ogilvie's 1930 volume of regional essays that the purpose of regional geography was "to describe the regions of a country as they are and to discover the causes that have made them what they are" (Russell, E.J. 1930: xvii).¹⁷

By 1913, therefore, it was possible for Keltie and Howarth¹⁸ to assert that:

"The principle of regional division ... has become a leading principle of geographical research, in regard not only to fauna and flora, but to man as well; to the physical characters of the land, and to climatic conditions." (Keltie and Howarth 1913: 176)

The region was, thus, seen as "one of the basic 'building-blocks' of geographical enquiry" which could be regarded as "both partitional (the world can be exhaustively divided into bounded spaces) and aggregative (these spaces can be fitted together to form a larger totality)" (Gregory 2009: 633).

By the mid-twentieth century, a movement, using statistical methodologies and quantification, was emerging in many geography departments across Europe and North America which saw an increasing trend towards specialization. The practitioners of this 'new' geography felt that the praxis of the region had become formulaic and principally descriptive and, thus, an outmoded methodology which did little to advance the discipline (e.g. Kimble 1951).

¹⁷ Edward John Russell (1872–1965); director Rothamsted Experimental Station, 1912–1943; president Geographical Association, 1923; president BAAS, 1948.

¹⁸ Osbert John Radcliffe Howarth (1877–1954) Oxford Diploma in Geography (with distinction) 1902.

However, the regional concept is being revisited, as with Maddrell's work on Hilda Ormsby where she quotes Ormsby on the "importance of encouraging the power of visualisation" (Maddrell 2006: 1743). Agnew's reflections on the evolution of the concept from the nineteenth century down to the early twenty-first century show how the lack of defined boundaries enable the region to be re-purposed for a myriad of uses (Agnew 2018). His comments also create a perspective on the use of 'regionalism', particularly for administrative and planning purposes in the UK, as exemplified by Gilbert (1939, 1951b) where he moves away from Herbertson's conception of the 'natural region'. The region is, thus, being reinterpreted, what Jones has described as a 'temporary permanence' that is "something stable, [but] not fixed and absolute" and which is constituted at "different points in time, for different purposes" so that there is "no single reading of a region" (Jones, M. 2017: 1). Such re-interpretations acknowledge the region as an embodiment of an everyday understanding of the world and reflect the original intention of the Oxford School which sought to equip its students with a methodology of the interconnected nature of the human and the physical that they could use in their teaching careers.

2.5 Concept of Small History

The region is, today, being re-examined and, in doing so, geographers have moved beyond the descriptive phase discussed above to a consideration of the explanation as to why "global developments take on a different, highly

variable character in local settings” (Murphy and O’Loughlin 2009: 241). This has resulted in the region now being regarded as the embodiment of an everyday understanding of the world and in turn has involved a change of scale from the global to the local. However, local should not necessarily be taken to mean studying only the parochial or things of minor interest. As Sillitoe points out his study of a university department, here anthropology at Durham, is provincial as opposed to metropolitan but it also bears on the national (Sillitoe 2018). Short and Godfrey introduced the concept of microhistory, a term borrowed from historians, into their discussion in order to relate the local to wider issues. In order to establish their use of this concept, where they use it to investigate the land wealth debate in Edwardian England, they discuss its use by historians in some depth (Short and Godfrey 2007: 46–48). They conclude that although unique the situation was not insignificant as “it was a constituent part of the national land discourse” (Short and Godfrey 2007: 69). This chimes with my research where the case of the Oxford School of Geography, in particular with regard to the paradigm of regional geography discussed above, coincides with a national concern for a re-invigorated approach to the teaching of geography.

Matti Peltonen, a Finnish modern historian, notes in his overview of the term, in relation to biography, that:

“The concept of new micro-history supposes that macro level phenomena are also present in the events that are illuminated in the micro approach ... it is not the case that microhistory as a methodological approach would be interested only in ‘little-known’ or ‘obscure’ individuals.” (Peltonen 2014: 114, 116)

He, also, writes that “a single village or an individual person as such is not ‘micro’ because they also participate in social processes that are understood as ‘macro’” (Peltonen 2014: 113) and that the “reduced scale of observation is the most obvious characteristic of microhistory ... [because it] reveals social structures that are relevant on a larger scale than the person or locality under view” (Peltonen 2014: 112, 113). Such an approach informs my investigation of individual students who pursued teaching careers in the wider educational setting of the United Kingdom, thereby spreading regional geography beyond a single university department.

Naylor’s progress report on historical geography in 2008 highlighted calls for work “into ‘small stories’ and ‘micro-histories’” (Naylor 2008: 266) and made reference to Lorimer’s seminal paper on ‘small stories’ (Lorimer 2003). By confining my research to both a specific space and time the construct of a ‘small’ or ‘little’ history comes into play, what Keighren would consider to be history at the ‘parochial’ or ‘micro-scale’ (2017: 259).

Bruinsma, in her study of student work in a single geography department in the later twentieth century, has further developed this concept of the ‘small’ by considering “the small locations, the small life stories, and then the ‘small’, yet many, knowledge productions of geographers-in-the-making” (Bruinsma 2021a: 46). My research, which looks at the student production of geographical knowledge in relation to small areas of the United Kingdom explores this aspect of the concept of ‘small’.

2.6 Archival Research in Geography

In order to investigate such small histories researchers are turning to archival material to explore the details contained therein in order to understand the relationships between the local and the national / global. Such an exploration can in turn lead to a re-evaluation of the material and the light that it can shed on themes including the role of the colonial powers in creating the original archives. Armston-Sheret exemplifies this when he re-examines the writings, both published and archival, of expedition leaders, including Isabella Bird Bishop in China, in order to excavate subaltern stories (Armston-Sheret 2023). As I noted above, I do not discuss Isabella Bishop's imagery when referring to overseas photography in chapter 5, although it is present in the lantern slide archive.

Some archival researchers in geography are also revisiting existing archives to re-interpret the material held within them. Morin, for example, considers 'unpopular' archives, defining unpopular as "something more akin to 'not widely known' by the people at large, or unfashionable" and which refer to "archived lives that have been forgotten, neglected, or dismissed as unimportant" (Morin 2010: 536). Further, she considers that some voices latent within an archive "are silenced because they are considered mundane, commonplace, of no consequence i.e., unpopular" (Morin 2010: 537). In one respect the archive of the glass lantern slides I investigate in chapters 4 and 5 is mundane as the contents were routinely used in academic lectures in the

first half of the twentieth century before being superseded by technological developments. Morin also asserts that archival unpopularity can occur as a result of the institutional processes, such as cataloguing and indexing, which take place within an archive and which can result in “inclusion, exclusion, foregrounding and marginalization” (Morin 2010: 537), an aspect of the Oxford School archives of relevance to this thesis as they were uncatalogued at the start of my research. Diaz, in her discussion of archival photographs of Puerto Rico, notes that “archives must always be considered in the context that someone, somewhere decided to keep the particular documents, texts, correspondence, and photographs available in archives” (Diaz 2023: 326). This is pertinent to my research as the archive of student descriptions I discuss in chapter 6 is now limited by the decision of a former librarian to retain only those with illustrative material.

Documentary sources are, also, being interrogated in order to investigate phenomena not initially considered as the reason for the creation of that documentation. A case in point is the study of school attendance records for a consideration of the effects of extreme weather on social vulnerability (Naylor *et al.* 2022). Increasingly, such research has led to considerations of the sensitivity of the material and questions surrounding its presentation e.g. Ashmore *et al.* (2012) and Knapp (2020) with regard to personal archives from still living people. Whereas Moore (2010) addresses the issues surrounding changes in social mores which now enable public

discussions of previously taboo subjects, in her case abortion. Wideman (2023), in his analysis of the relationships present within an archive, reflects on the notion of care both in the interactions between the researcher using, and the custodian of, the material and between the humans and materials in the archive. This resonates with my research in that, in some respects, I am both the researcher and the custodian of the archives involved, custodian in so far as the archives are collections from the former School of Geography Library and, until retirement, I was a staff member of that library and I, therefore, have a “deep knowledge of the institution” (Wideman 2023: 404).

As archival research moves away from the documents produced within the official / governmental domain it is the diversity in the type of material available that attracts the researcher to investigate unusual or unconsidered sources, recently exemplified by Bruinsma in her work on later twentieth century undergraduate dissertations (Bruinsma 2021a, 2021b). There has, also, been a reviewing of the nature of the ‘geographical archive’ and its role as a “site of knowledge making” (Withers 2002: 304). Additionally, such a review has looked to its incorporation into the history of the discipline (Johnston, R.J. and Withers 2008). These initiatives feed into the concept of small histories discussed above and because of its role in the national promulgation of the discipline, archives from the Oxford School of Geography are also important in the disciplinary history of geography.

2.7 Practical Issues with Archival Research in General

Archival practice has expanded as the range of material considered for inclusion in an archive has also expanded to include more than simply textual material. Formal government archives, both national and local, have concentrated their efforts in curating textual material but this has expanded and, in particular, non-governmental archives are more likely to include material beyond the documentary, e.g. Oxford University Press archive contains artefacts relating to its printing history, including sets of type { <https://global.oup.com/uk/archives/12.html> }. This has led archivists and other professionals to re-evaluate the place of non-textual material, such as photographs and photographic slides, in their collections and to formulate policies for the collection and preservation of such items. Geographical archival research is, similarly, frequently divided into two broad categories: textual research or the “engagement with inscriptions on paper” (Keighren 2013: 571) with its attendant challenges, including “fragmentary records, uncertain provenance, illegible handwriting, etc.” (Keighren 2013: 570) and photographic research. In the latter case imagery, often early aerial photography, is used as the baseline for environmental change as there is the possibility of revisiting and re-photographing the locations. By re-using existing images in this manner, e.g. Bjørk discussing the Greenland Ice Cap and Boerma investigating deforestation in Eritrea (Bjørk *et al.* 2012; Boerma 1999) researchers ensure that the worth of early imagery is fully recognised.

In this thesis I am considering the original contemporary use of photographic imagery, thereby broadening the perspective of its role in the history of the discipline. Research using archives of photographic lantern slides, discussed below, is a relatively new development in both geographical and pedagogical studies but one I investigate in the following chapters.

One concept that is frequently referred to in archival collection policies is that of 'uniqueness'. O'Toole's exposé (1994) of the idea revealed four aspects to this concept of which two are of relevance to my research.

Commercial lantern slides and postcards cannot be said to be unique in and of themselves as they were re-produced in considerable numbers and acquired by an unknown number of institutions and individuals. However, within the context of the Oxford School of Geography the lantern slide collection is unique in that the collection in its entirety was formed for the specific purpose of supplying relevant images for the academics to use within their lectures. Such a purpose was not, in itself, unique to Oxford but the composition of such collections would vary between universities as it depended on the preferences and outlook of the academics present in each university, this corresponds to O'Toole's uniqueness of process and web of interrelated information. Similarly, the students' assemblages of postcards within their descriptions are unique to each student, even when they are discussing the same region, i.e. uniqueness of aggregation (O'Toole: 1994: 639).

When strictly applied, the uniqueness concept can lead to the decommissioning, if not the destruction, of entire slide collections as Krivickas and Meyer (2012) demonstrate in their discussion of a large 35mm slide collection where, although only a third were found to be replicated in large digital databases, the wider university decision not to maintain the technology necessary to use the slides in a lecture setting meant that the entire collection was discarded. They also discuss the problems associated with the lack of ‘source’ information which is deemed to render the cataloguing and, therefore, accessioning unviable. This presented a, not insuperable, challenge in my research but did highlight the amount of time required to remedy such a lack. This process of decommissioning can be particularly prevalent in former teaching collections which have been overtaken by the rapid development of digital technology in the lecture theatre, as exemplified by the rise of the ‘PowerPoint’ presentation. Old teaching slide collections are, therefore, coming under threat of such decommissioning, in particular where the forces of lack of space, finances, image decay, copyright issues, and the perceived redundancy of old media forms in the digital age are combined. Muller and Taichman have described this process in one university where the values of “completeness and local availability” which had previously made a teaching collection viable were perceived to have been superseded by the “availability of the images online or at other institutions” (Muller, L. and Taichman 2012: 2–3). They discuss the shift in emphasis when a teaching slide collection

becomes an archival collection and the contents are re-evaluated in terms of “provenance and uniqueness rather than usefulness for teaching” (Muller, L. and Taichman 2012: 2).

However, an archive should not be seen as simply a repository for the safe keeping, curation, and preservation of scholarly materials but, as Withers has argued, as a ‘knowledge space’ in its own right (Withers 2002). The question of location impacts upon the construct of the archive as has been discussed by Lorimer and Philo in relation to their work collating material for the Glasgow centenary (Lorimer and Philo 2009).

This locational question also impacts when a seemingly cohesive archive is dispersed, possibly for operational reasons. Punzalan has termed such dispersal an ‘archival diaspora’ and drawn upon work in transnational studies to explore the concept with particular reference to photographic material (Punzalan 2014). As Punzalan notes, “photographs can appear in multiple copies, versions or formats [and] photographs of the same provenance are often found in various locations or housed in several institutions” (Punzalan 2014: 326). This comment is particularly relevant for the contents of teaching slide collections from the early twentieth century when the output of commercial operations was used as a main source for the contents of those collections. My research into the sources of the Oxford School of Geography glass teaching slide collection will reveal that the majority of this collection was obtained from sources that were generally

available to all academic geographers in the UK. The Oxford School of Geography collection of glass lantern slides can, therefore, be seen as an archive formed by the reconstitution of photographic imagery from a wide range of sources which will have been replicated in a variety of ways and by a variety of institutions and which may, or may not, still be extant. In one sense, therefore, the Oxford collection is unique in that it reflects the teaching of particular academics at a particular time, but the same collection can also be regarded as an exemplar for similar collections across the UK.

Elliott and Pritchard have supplied a detailed description of the metadata compiled as part of a project which both catalogued and digitized part of an extensive photographic collection which also included lantern slides (Elliott, J. and Pritchard 2020: 783–784). The collection they were describing was known to have originated from a single person although more than one photographer was involved in creating the imagery. Its provenance was, therefore, readily ascertained and because it documented research undertaken in the field fulfilled the archival definition of ‘uniqueness’. The compilation of the metadata necessary to provide an adequate catalogue of the Oxford teaching collection entailed an extensive research process which is detailed in the next chapter. Without my research the further research possibilities of the collection are limited and could render the collection liable to decommissioning.

Lorimer and Philo discussed not only the locational aspects of the Glasgow archive but also the ordering of the deposits within it. They queried that ordering by asking whether it “can be assumed, however, that an ordered archive necessarily should give rise to an orderly account based upon this order?” and suggested that “the researcher needs to be suspicious of the apparent order, and instead to seek out ‘cracks’ in the façade” (Lorimer and Philo 2009: 229). Ordering and re-ordering are commonplace within working collections as they are augmented and as their pedagogical use alters through time. I discuss such ordering and re-ordering within the Oxford School of Geography archives in chapter 3 and note that the appointment in 1953 of a professional librarian ensured that a handlist of the lantern slide collection was compiled which has formed the basis of my research and the construction of Appendix 1.

I suggested above that the Oxford School of Geography teaching collection of glass lantern slides, now within the collections of the Bodleian Social Sciences Library, is both unique and an exemplar of teaching collections in other UK geography departments. It is perhaps fortunate that the School’s librarian from 1953, Elspeth Buxton, was always reluctant to discard material from the library (Baigent *et al.* 2020: 77) with the result that not only the slide collection, but also that of the student examination descriptions, remained largely intact. This contrasts with part of the slide collection of the University of Oxford, Institute of Archaeology which formed

the initial core of the HEIR archive and which was saved from disposal into skips in the 1980s (Katharina Ulmschneider, pers. comm.). This Historic Environment Image Resource (HEIR) project is a separate initiative conceived in 2014 and based in the Institute of Archaeology at the University of Oxford. The project has sought to “rescue neglected and endangered photographic archives” and seeks to unlock the research potential of historic lantern slides and glass plate photographs and make them available to the public by a programme of digitization (Kinory and Ulmschneider 2024) { <https://heir.arch.ox.ac.uk/pages/home.php> }. I discuss the HEIR project in more detail in chapter 3.

Hayes has discussed the loss of material from the slide collections of the RGS during early 1950s when slides deemed to have become badly faded were destroyed (Hayes 2016: 195–199). She does, however, note that the date and number of de-accessioned items was recorded on the catalogue record card for the full set, although these cards contain no detailed information as to the contents of each set. Sassoon (2000) comments upon the apparent destruction of an entire photographic collection originally housed in Australia House in London. She attributes this to a lack of “awareness of photographs as documentary records” and a perception that “space used for storage of documents is wasted” and must, therefore, be re-purposed for more useful aspects of the institution’s functions (Sassoon 2000: 123, 122).

Meanwhile, the lack of a dedicated archivist at the Geographical

Association has meant that the process of creating a full listing of the contents of their slide collection is still ongoing (Isabel Richardson (2022) E-mail to Susan Squibb, 7 July). Another factor in the re-assessment of a slide collection has been highlighted by Kessler and Lenk (2018) when they discuss the perception of the contents as being obsolete due to the rise of digital media and its re-use in online presentations. As they state:

“Art historical institutes had built enormous collections which now are considered made obsolete by digital media, part of the Hamburg collection studied by Anke Napp, has been thrown away already, and one can only hope that the rest will be preserved.”
(Kessler and Lenk 2018: 56)

In addition, the analogue technology of slide projection equipment is also becoming difficult to source rendering the slides themselves increasingly unusable in their original mode of presentation {<https://www.hamburger-kunsthalle.de/en/long-term-project-conservation-slide-based-artworks-2015-2018>}.

Slides and photographs are not the only archival mediums that are threatened with disposal or destruction as evidenced by fate of a significant part of the archives of Ruskin College, Oxford relating to past students.¹⁹ There, the then principal, Audrey Mullender, is reported to have described the student files as “a load of old paper that no one ever looked at” and further that they were “of scant historical value, being extremely thin and boring and not a complete record” (Kean 2012). Referring to email correspondence

¹⁹ Founded in 1899 to provide higher education for working class students. Now part of the University of West London, not University of Oxford.

between various parties Kean further notes that Mullender records her opinion as “I think we must live by our future” whilst others considered the matter solely as an “internal administrative matter” (Kean 2012).

Craggs discusses the former library space at the Royal Empire Society in London as a site of both knowledge creation and preservation which was informed by the processes “by which materials are collected, ordered and displayed”, including the library specific practices of cataloguing and classification (Craggs 2008: 49–50). These processes were tailored to the specific needs of the institution and as Craggs states:

“This way of approaching and classifying knowledge reflected and reproduced the academic approaches to geography prevalent at the end of the nineteenth century and continuing beyond the 1930s.” (Craggs 2008: 58)

Such a specific approach to knowledge is pertinent to all the contents of the former Oxford School of Geography Library and informs the arrangement of the glass teaching slide collection examined in this thesis. Craggs also comments on the impact of relocation on the formation of knowledge spaces, again resonating with the experience of the Oxford School of Geography Library and which also links with Punzalan’s work on the ‘archival diaspora’ noted above.

I now turn to a consideration of the various aspects of the history of photography which have informed my research.

Literature Review

II: Photographic Aspects

2.8 Photography and Popular Visual Culture

When O'Toole explored the concept of 'uniqueness' with regard to archival material, discussed above, he included photography in his exposition. He alluded to Mitchell's analysis of 'visual truth' which had been weakened by the emergence of digital imagery manipulation (O'Toole 1994: 650; Mitchell, W.J. 1992: 28). However, photographic imagery had always been subject to the possibilities of manipulation in the dark room during the developing processes. More generally, photography, in particular topographic photography, was inscribed with a signification of reality, which has endured. In his resumé of the use of the camera in geography for the centennial volume of the American Association of Geographers, Jakle noted the "continued faith in photography's realism as a means of documenting truth" (Jakle 2004: 231). This aspect of the photograph avoids other questions which can be asked, for as the communication and media scientist Lena Jayyusi noted "are photographs art form or communicative object; sign or mirror; record or artifact; cultural construction or objective rendition?" (Jayyusi 1992: 25). In this thesis I view the topographic imagery present in the archives as objective renditions which record the landscape being viewed by the photographer. Jakle also highlighted that photography was used to "reinforce other narratives" to be, following Goin (2001), supplementary and supportive (Jakle 2004: 228). This aspect of the use of photography is pertinent to my research

as both archives, lantern slides and student descriptions, employ imagery in support of either academic lectures or the students' texts.

Vuković and Fischer have also explored the use of the “camera as a tool in geography” from the nineteenth century until the present, in particular with regard to visualizing climate change (Vuković and Fischer 2022; Fischer and Vuković 2023). They discuss the expansion of the geographer’s toolkit from painting and sketching in the field to the inclusion of photography as the technology developed during the nineteenth century. The technological developments included the introduction of the dry plate glass negative in the early 1870s which gave photographers greater freedom as they did not need to carry a portable darkroom into the field as they did with the wet collodion plates. In discussing Friedrich Simony they note that he embraced the attribute of *Naturtreue* [fidelity to nature] assigned to the medium (Fischer and Vuković 2023: 205).²⁰ I address the expansion of the geographer’s toolkit both in regard to the Oxford academics demonstrating the various components and, in the students demonstrating their understanding and personal use of those components, particularly the photographic.

The technological developments in photographic equipment and processes during the nineteenth century enabled publishers to link the resulting imagery with developments in printing technologies, in particular wood block, and later steel, engraving, lithography and half-tone

²⁰ Friedrich Simony, 1813–1896, Austrian geographer specializing in Alpine research.

reproduction. The *Illustrated London News*, in London, and the *National Geographic Magazine*, in Washington, D.C., were two of the leading exponents of the inclusion of photographic imagery in their pages, thereby seeking to enliven the textual content. As Lutz and Collins noted “in *National Geographic*’s continuing efforts to locate itself on the boundary between science and entertainment, photographs became an increasingly significant tool” (Lutz and Collins 1993: 27). They also were aware that, initially, photographs were subordinate to the text as Jakle noted above.

The association of imagery with entertainment was one which exercised many people in their attempts to introduce the visual into scientific and educational arenas. Tucker has noted that the BAAS was “careful not to be too entertaining” (Tucker 2020: 134) whilst in their study of the introduction of imagery into Belgian classrooms in the late nineteenth century Egelmeers and Teughels report the contemporary acknowledgement that:

“In line with the traditional pedagogical aversion to blending instruction with amusement, the still widespread use of the lantern as an instrument of popular entertainment was causing many of his colleagues to object to its implementation in education.” (Egelmeers and Teughels 2021: 793)

I look more closely into the use of lantern slides below but note that such concerns were repeated when the moving imagery of film was presented as being suitable for educational purposes (Teughels 2022: 562). Such concerns about the value of photographic imagery add to its precarity in the archive as I discussed above.

Beegan (2008) has explored the phenomena of illustrated media in the last decade of the nineteenth century, whilst Belknap (2016) has considered the use of photography as an authenticator of science. Lightman (2000), however, looked at the role of photographic imagery used in the popularizing of science in the second half of the nineteenth century. Concomitant with these technological developments is the rise of compulsory schooling in Great Britain for children to the age of twelve by the end of the nineteenth century. This enabled the majority of the population, regardless of financial circumstances, to be literate and take advantage of the surge in publications.

As well as being exposed to imagery in the classroom, if only in the use of the blackboard, as Wylie (2012) has discussed in relation to ‘nature study’, the use of the lantern slide in Sunday School teaching and public entertainment would have increased the exposure to visual imagery. Mackinder, in his address to a conference arranged by the Technical Education Board of the London County Council and the Geographical Association, was concerned with the “development of geographical teaching out of nature study” (Mackinder 1904) and as Wylie noted nature study had arisen from “popular science, hands-on education and school reform” (Wylie 2012: 59).

Continued innovations in photographic equipment rendered the camera less expensive, less cumbersome and more accessible to users and I discuss the impact this had on the students in chapter 6 and the subsequent influence

in their teaching careers in chapter 7. Ryan, in a review article, noted that photography had become a “popular pursuit as well as a scientific technique”, that not only was photography “a scientific tool of the geographer” but also a major commercial activity through [the] “ephemera, such as the stereoscope and the lantern slide” (Ryan 1994a: 335). These ‘ephemera’ enabled the “distant ‘realities’ of different places and peoples [to be] brought into the homes and consciousness of a mass audience far wider than Britain’s scientific community” (Ryan 1994a: 336). Dominici (2018) has related the ‘popular pursuit’, enabled by such innovations as the compact camera and roll film, to the expansion of travel, partly as a result of increased leisure time due to government acts regulating working hours and partly as a result of the increased rail network, followed by the introduction of an extensive local bus network in the twentieth century. However, these photographic innovations and the expansion of the transport network also enabled the students to move around their study areas and re-present those areas in photographic imagery in their descriptions. In chapter 4 I reflect on the contemporary understanding of photography and its role in geographical education. Whilst two particular aspects of the popular use of photography, the lantern slide and the picture postcard are further discussed below.

2.9 Overseas and Colonial Photography

Although not engaging with a critical reappraisal of the overseas imagery present in the teaching slide collection, which I discuss in chapter 5,

work in this area, since the 1980s, has contributed to a deeper understanding of the context in which the overseas photographers operated. One of the earliest of the colonial photographers, Samuel Bourne in India, has attracted the attention of several authors as he publicised his operations and photographic expeditions in articles in the *British Journal of Photography* between 1863 and 1870 (Bourne 2004). Ryan has explored Bourne's career in relation to the British Empire (Ryan 1997: 47–61). Others, meanwhile, have examined Bourne's relationship with the artistic concept of the picturesque and his attempts to portray the Indian landscape in a mode that was both understood and accepted by his principal consumers, the colonising residents in India and their circles in Britain. As Banerjee notes Bourne, and other photographers in India, attempted to “tame the sublimity of the mountains by representing them as similar to the Alps” (Banerjee 2014: 351). Sampson, whilst only considering a small subset of Bourne's photographic output, draws out the picturesque in his work by noting that “the scene should not allow for serious social or cultural discourse, but rather foster an emotive vision” and “should aim to please” (Sampson 2002: 90, 84). I briefly discuss the use of the adjective ‘picturesque’ in relation to commercial photography in the Indian sub-continent in chapter 5.

In Britain the artistic concept of the ‘picturesque’ was introduced in the late eighteenth century by writers such as William Gilpin and Uvedale Price. They sought to move landscape painting and appreciation away from an un-

natural, principally classical, ideal to a genre which presented the actuality of the scene. However, it was an actuality which was selective as it was presented as an artistic composition which conformed to subjective views of what constituted an appropriate landscape. Hussey (1927) discusses the picturesque as an amalgam of aspects of ‘beauty’, such as serenity and symmetry, with aspects of the ‘sublime’, such as grandeur and the ability to inspire awe. The picturesque, by including a degree of roughness and irregularity, was, therefore, on a spectrum between the beautiful and the sublime. However, it adhered to compositional formulations such as a distant, more sublime background and a foreground framed, or enclosed, by elements, such as trees, to enhance the visual perspective. Although outside the remit of this thesis the use of such picturesque compositional elements in early cinematography is explored in detail by both Peterson (2013: 175–205) and Blom (2021) and serves to provide an exposition for the concept in photography more generally.

Photography, in the nineteenth century, sought to establish its credentials in both a scientific mode, where the depiction of reality was asserted, and in an artistic mode, where the composition conformed to established concepts, such as the picturesque. Ackerman, although concentrating on the rise of the picturesque in photography, draws attention to the other accepted mode, which he describes as ‘documentary’. He defines this as “utilitarian and modern, a manifestation of a faith in the scientific”

(Ackerman 2003: 91–92). This dichotomy between scientific and artistic photography is one I consider in my discussion of the use of commercial photography in chapter 4. The picturesque developed in the late nineteenth and early twentieth centuries into a commercial genre exploited by, for example, postcard manufacturers as they fed into a perceived nostalgia for a rural idyll. The use of such postcards by the Oxford students pushed against the publishers' intentions and provides some interesting examples of the more prosaic and pragmatic approach expected of the geographer when viewing the landscape.

The commercial imperatives of overseas photographers have been addressed in the case of Felix Beato by Wong. She explores his enterprises, including photographic studios, in both Japan and Burma (Myanmar) and highlights the value of creating picturesque views to appeal to non-Burmese or non-Japanese patrons (Wong 2008). She also notes that he entered the postcard market to stay abreast of communication developments and maintain his profitability (Wong 2008: 7). These commercial imperatives enabled the international traffic in overseas photography which in turn enabled the creation of lantern slides in Britain depicting overseas localities.

But it was not solely British colonial photographers who supplied the source material for educational lantern slides. In the Middle East and North Africa French or Armenian practitioners, such as Leroux in Algeria, Lékégian and Sébah in both Constantinople (Istanbul) and Cairo, dominated the

commercial photographic market in the late nineteenth century. They were exploiting the increasing tourist market for their views, including ensuring the images fulfilled the western sense of the picturesque (Behdad 2016: 57). However, they were also engaged in creating images which played into the European sense of the 'Other' (Behdad 2016). In the Middle East, local photographic studios created images which conformed to an "ethnological system of differentiation and classification that made them both legible and desirable as images of cultural alterity" (Behdad 2016: 5). Such images not only re-presented ethnic types, usually in a 'traditional' costume, and workers, including street vendors, but also a different architecture and streetscape to that encountered in the Western European milieu. These images engendered a sense of the exotic in the European travellers, both actual tourists and those who remained in the West but consumed the images in reproduced forms. A sub-genre of the exotic found within Middle Eastern and North African photography is the erotic imagery of women, including the concept of the harem. However, within the Oxford School of Geography slide archive this aspect of the 'other' is not encountered. Bell has explored both the exotic and the erotic in photography taken in Samoa in the late nineteenth and early twentieth centuries which envisioned "culturally distinctive activity" located within a western perception of a tropical paradise (Bell, L. 2005: 163). But again, it is the exotic in the form of indigenous architecture

that is present in School's collection of imagery from Oceania rather than the ethnographic or erotic.

Parallel to the development of geography as an academic discipline in Oxford was the development of anthropology. Although the examination for a diploma in anthropology was not instituted until 1905, six years after that in geography, a readership had been established in 1884, three years before Mackinder's appointment to that in geography. Henry Balfour (1863–1939), curator of the Pitt Rivers Museum from 1890, was active in the acquisition of anthropological and ethnographical photographic material for the museum as it formed an “important adjunct to a museum” as he wrote to a friend in 1898 (Petch and Larson 2013). As Edwards noted in 1984 the “acquisition of good commercial photographs” was seen by Balfour as supplementing the museum specimens, especially if the objects, such as houses and large sea craft, “were difficult to collect and store” (Edwards, E. 1984: 29). As early as 1876 E.B. Tylor was writing that “the science of anthropology owes not a little to the art of photography” (Tylor 1876:184).²¹ Edwards also notes that the commercial photographs were acquired in conjunction with photographic imagery obtained both as tangential to colonial administration and as a result of overseas fieldwork. The establishment of two new disciplines in Oxford in the later nineteenth century, both with a strong visual component, meant that for

²¹ Edward Burnett Tylor (1832–1917); Keeper of the Oxford University Museum 1882–1902; Reader in Anthropology 1884; Professor of Anthropology 1895–1910.

the most part ethnographic photographs are to be found in the Pitt Rivers collections rather than within the lantern slides of the School of Geography. This separation of material, however, also reflects the close ties between the two subjects as the Department of Social Anthropology occupied the same premises as the School of Geography from 1920 until 1939, whilst the joint Faculty of Anthropology and Geography was created in 1938. Students for the geography diploma could offer ‘geography of man (ethnological)’ as a special option from 1921, and lectures on the ‘distribution of man’ were included from 1905, whilst after the introduction of the honours degree in 1932 lectures in physical anthropology and general ethnology were given to geographers by members of the School of Anthropology.

2.10 Lantern Slides and Education

Having suffered a period of eclipse as developments in technology caused the lantern slide to be relegated to the archive, if not the skip, as I noted above, this material, as with imagery from colonial photographers, is now being rediscovered and re-evaluated. Initially the medium of the lantern slide was viewed as being a source of entertainment and Shepard (1987) has provided an overview of this in America together with its transition to an educational tool. Within the RGS there were concerns that “the medium would vulgarize learning” (Hayes 2018: 28). In his reminiscences of working within the RGS Keltie referred to concerns about maintaining the “dignity of the Society” not only in connection to the use of slides in meetings (Keltie

1917: 358) but also with regard to the updating of the Society's publication in 1893 from *Proceedings* to *Journal*, whilst eschewing "anything in the nature of a magazine", this included allowing advertisements in the publication to assist with the finances (Keltie 1917: 371–372).

However, both Mackinder and Herbertson were using lantern slides to illustrate their lectures before the inauguration of the Oxford School of Geography. Herbertson, during his incumbency of the position of lecturer in geography at Owens College, Manchester between 1894 and 1896, addressed the Manchester Geographical Society and illustrated his talk using "a series of fine photographic slides, lent by Professor Geddes, of Edinburgh" (Anon. 1895a: 207). Meanwhile Mackinder was using an "oxy-hydrogen lantern" to illustrate his first university extension lecture in Rotherham in 1885 (Garnett 1967: 21, quoting *Rotherham Advertiser* 19th December 1885). The use of the phrase 'oxy-hydrogen lantern' in the report is indicative of a desire to emphasise the scientific nature of the public lecture. Reiser, in his discussion of the use of the lantern in biology lessons in American schools, notes that:

"The name "magic lantern" sufficed during the years when it was a parlor entertainment device, but announcing to a class in the sciences that "today's lecture will be presented with the aid of a magic lantern" didn't sound terribly professional. Projectors advertised to educational institutions were given impressive high-tech aliases such as the Stereopticon." (Reiser 2010: 557)

But it was not only the visual which was exploited by lecturers in the nineteenth century and both Hewitt (2012) and Finnegan (2017) have explored the role of the voice in the delivery of public lectures and how it was the overall performance of the speaker that influenced their popularity. Such

popularity and ability to engage the audience, frequently composed of the genteel and the middle-class who would expect what has been termed ‘rational recreation’ (Hewitt 2012: 80), was necessary if the lecturers intended to make their living from their lecturing. As Hewitt has noted it was in the “spectacle of the platform” that the lecturer “became the exhibit” so that a “powerful platform presence became almost a prerequisite for lecturing success” (Hewitt 2012: 86–87). Finnegan, in his consideration of the public scientific lecture, also, notes a shift during the nineteenth century towards “prioritising the charisma of the speaker” and attributes part of the concern of the “art of presence” of a lecturer to a “rapid expansion in the availability of the printed text” (Finnegan 2017: 194). In this respect Zwierlein has elucidated that:

“The 1855 repeal of the Stamp Act made mass print more widely available and affordable, and the 1870 Education Act boosted literacy rates across the population, with both the working classes and women turning into avid readers of magazines and periodicals.” (Zwierlein 2022: 374)

Finnegan also asserts that the location of the lecture had “a significant influence on their form, functions and impact” (Finnegan 2017: 193).

Livingstone had already noted that the venue was important in generating ‘knowledge-claims’ and then wielding those claims differently according to the venue. Livingstone also asserted that “where ideas and theories are encountered conditions how they are received” (Livingstone 2007: 73).

Keighren developed this when he followed Livingstone in discussing the diffusion of knowledge as depending on the transfer between venues

(Keighren 2008: 198). This discussion of the location of the lecturer, in addition to their orality, is relevant to my research as I investigate the Oxford lecture theatre as a space both of geographical knowledge production and transmission.

From various accounts it would appear that Mackinder was acknowledged as an “inspiring lecturer” (Kearns, G. 1985: 77) with a “gift of clear, incisive and forceful speech” (Unstead 1949: 52). In his biography of Mackinder, Blouet speaks of “his erect bearing, flashing eyes, and strong presence” (Blouet 1987: 202). Whilst one attendee of the 1902 Long Vacation Course at Oxford recalled Mackinder’s “distinctness of speech, the clearness and precision of the language, and, perhaps, above all, the sympathy and infectious enthusiasm of his manner” (Carter and McGregor 1902: 175). This is in contrast to Herbertson who, according to one who was both an early student and subsequently a fellow academic, “was not in any sense a ‘popular’ lecturer” (MacMunn 1915: 145) as he “lacked the compelling magnetism of Mackinder” (Jay, L.J. 1979: 86) and was described as having “no dramatic gifts of speech or manner” (Gilbert 1965: 328).

Some public lecturers did not rely solely on their oratorical skills but incorporated visual elements into their performances. These could include extempore sketching on a blackboard or large prepared canvases as did the

natural history lecturers, B.W. Hawkins and J.G. Wood.^{22,23} Hawkins is reported to have had a “peculiarly felicitous way of rapidly sketching and talking” (Fallon 2023: 360), whilst Wood described his performances as “sketch lectures” (Wells 2024: 6; Lightman 2007: 168). Increasingly, during the nineteenth century this method of visualization declined as the technology of projection improved and became “less risky” in its use (Hewitt 2012: 94), in particular with the adoption of electricity as a safe light source for the projection lantern (Kessler and Lenk 2022: 49). Nelson has noted that being able to “speak about an image that is equally accessible to speaker and audience permits a deeper and more detailed visual analysis than was possible before photography” (Nelson 2000: 423).

An early adopter of lantern technology was the BAAS, which, from its foundation in 1831, had an “institutional goal of promoting public understanding of science” (Tucker 2014: 200). The BAAS has been described as a “hotbed for contemporary practices that linked scientific method to visual culture” (Tucker 2014: 213). This, in part, is due to the BAAS being peripatetic and not based in London so that it helped to forge links between leading exponents of the various scientific fields and the local, often amateur, organisations and their members (Tucker 2020: 133). This is exemplified in the setting up of various committees for the compilation of national banks of

²² Benjamin Waterhouse Hawkins (1807–1894) now famous as the sculptor of the Crystal Palace Park dinosaur models.

²³ Rev. John George Wood (1827-1889), popular writer and lecturer on natural history, a quintessential parson-naturalist.

photographs in specific disciplines, such as geology (Tucker 2020: 136–137).

The use made by the Oxford School of Geography of imagery from these BAAS collections is discussed in detail in chapter 5.

Recently there has developed an interest in the pedagogical use of lantern slides within schools around the world. Hollman (2016) looked at its role in the teaching of geography in Argentina where she examines c. 17% of an archive of lantern slides used in a teacher training institution. She notes that this institution, *Escuela Normal de Paraná*, was regarded as a “model institution of education in Argentina and known nationally for the modern quality of its teaching” in which lantern slides were part of a “modernizing pedagogy” (Hollman 2016: 9, 7). Hollman also draws attention to the highly structured use of the lantern slide in conjunction with the text supplied with the slide (Hollman 2016: 6). This practice is echoed in the COVIC lecture texts and slides as explored by Meneghini (2021, 2022). In the United States Cain (2015) has also looked at the use of the lantern slide in relation to geographical teaching and noted the concurrent use of the stereographic image, a medium not present in the archive I am researching.²⁴

In England, Fox has provided a useful summary of the history of the use of visual material within the geography classroom and in particular the

²⁴ Although aerial stereoscopic imagery is present in a separate Oxford School of Geography archive and was used to teach landscape evaluation after World War II. (Geography stereoscopic photographs 43 boxes containing 308 folders, Catalogue ID: Alma: 990214165140107026); [There is also a separate archive: Geography aerial photographs 15 boxes, containing remote sensing imagery, Catalogue ID: Alma: 990210169990107026.]

relevance of the lantern slide (Fox 2005: 7–9). Fox presented his review as his presidential address to the Geographical Association and I explore the role of this body in the promulgation of the use of the lantern slide in detail in chapter 5 (also Squibb forthcoming). The Geographical Association not only encouraged the use of the lantern slide in the classroom they also provided a source of suitable material, to supplement that provided by commercial slide companies.

The emergence of new pedagogical theories, which I alluded to above in relation to geography specifically, laid an emphasis on the visual and the experiential and were current not only in Great Britain but also in continental Europe. Bucchi (1998) has discussed these theories in relation to the dissemination of, initially, German natural history wall charts.²⁵ Whilst Butler was urging the construction of large wall maps to assist in geographical teaching within the London University Extension scheme and discussing this within the BAAS (Anon. 1880: 649–651). The Oxford School of Geography was active not only in acquiring and creating such maps but also in encouraging other departments, in particular history, to borrow this resource (Merry 1905: 370), a practice which continued into the 1990s (S. Bird, pers. comm.).

²⁵ Examples of such botanical charts can be seen on the walls of the Department of Plant Sciences, Oxford (now incorporated into the Department of Biology) "There are about 400 in total of which about half are from commercial sources (German, Swiss and French), the other half were made internally in the late-19th/ early-20th century." (S. Harris pers. comm.)

On the continent, in Belgium, this new, more visual, approach to pedagogy was evidenced by a move to introduce the optical lantern into schools. However, as an initiative of the government it met with slow progress as Egelmeers and Teughels (2021) discuss. They note that teachers often preferred less expensive media such as wall charts and maps (Egelmeers and Teughels 2021: 786–787), media I discussed above. Teughels (2022) gives further examples of the media that were introduced into Belgian classrooms to create a multimodal space including the collection of suitable postcards (Teughels 2022: 557, 562), a medium used by the Oxford students and which would reward further research into its pedagogical use. But the Belgian government persisted in its efforts to incorporate the lantern into the educational milieu, even in 1899 issuing “a circular stating that secondary school lessons in history, geography and natural sciences should make use of the optical lantern” as geography teaching in particular would “become a thousand times more interesting and fruitful” (Egelmeers and Teughels 2021: 796).

However, Teughels draws attention to various problems which hindered the incorporation of the lantern, not least the fact that slide series available from “commercial producers often failed to meet teachers’ needs” so that teachers “mixed and matched slides from disparate series and from various producers” (Teughels 2022: 568), a practice which this research will show also obtained within the Oxford School of Geography. One way in

which Belgian schoolteachers could reduce the cost associated with the lantern slides was to avail themselves of national slide libraries created to facilitate their use through the hire of sets as discussed by Egelmeers (2024). Within the UK such centralised facilities did not exist, but *ad hoc* arrangements within local education authorities to supply sets to schools under their authority augmented initiatives made along disciplinary lines. Harlan refers to one such initiative within archaeology and the lending of the Hellenic Society's collection to members of the Teachers' Guild (Harlan 2005: 206).²⁶ In a later chapter I investigate another such initiative from the Geographical Association, an organisation originally conceived as a means of sharing slides between public schoolmasters (Balchin 1993: 3).

Research is also taking place into the role of the lantern slide within the university because as Nelson asserts “when lecturers comment on slides, they tacitly make the claim that while all present may be looking equally at the image, they know it better” (Nelson 2000: 421). Kessler and Lenk (2022) have looked at the general emergence of the lantern slide in Western European higher education and noted that certain disciplines, including geology and botany, were active in their acceptance and use of the lantern slide (Kessler and Lenk 2022: 38). They also note that institutions with long-standing traditions could be resistant to the adoption of newer pedagogical methods. In

²⁶ Professional organisation active in England 1883–1929 (https://www.ucl.ac.uk/bloomsbury-project/institutions/teachers_guild.htm, accessed: 27 June 2024).

Oxford this manifested itself in a reluctance to accept newer disciplines, such as geography, anthropology and archaeology, which embraced the visual as a core component (Baigent *et al.* 2020: 45). Continental universities did not rely solely on commercial producers of lantern slides but used a range of sources, including internal photographic laboratories (Kessler and Lenk 2022: 41), and I explore the setting up and use of a darkroom in the Oxford School of Geography in chapter 5. Harlan, in her examination of the history of the teaching collection of archaeological lantern slides originally housed in the Ashmolean Museum, University of Oxford, notes the contributions made by a succession of academics within the discipline (Harlan 2005) and concludes by asserting the images that were originally conceived as ‘teaching aids’ have now become ‘research tools’ (Harlan 2005: 210). As Kessler and Lenk state the “study of existing slide collections” can “further our understanding of the material infrastructures that facilitated the adoption of the optical lantern”, whilst acknowledging that although “commercial suppliers of slides did play an important role” there was also an advantage in having an “ability to have images reproduced locally” in order to “broaden the range of illustrations available” (Kessler and Lenk 2022: 48). By examining all the sources used to create the teaching slide collection of the Oxford School of Geography I extend that understanding. In all of this there is also an assumption that students, whether in a school or a university setting “had to learn how to see in the ‘right’ way” (Teughels 2022: 570), that is to acquire a visual literacy

which I discuss in chapter 4, and is a core theme in this thesis as the Oxford geography students developed their ‘eye for country’.

2.11 Picture Postcards as a Research Source

In the same way that photographs, and the reproduction of such imagery in lantern slides, are being re-evaluated, picture, or view, postcards are now being considered as a suitable resource for academic research. Whereas the lantern slide moved from being regarded as an artefact of popular entertainment to a useful adjunct in an educational setting at the turn of the twentieth century, the postcard continued to be seen as a popular and mundane, everyday item until the late twentieth century. Basing his analysis on a study of his own collection and secondary sources, Rogan identified four main factors to account for their popularity: aesthetics of the picture; function as souvenir; collectible object; and means of communication (Rogan 2005). In this, postcards epitomize the complex history of visual culture. They straddle the line between ‘high’ and ‘low’ art, between an earlier modernist art history and more recent work in visual culture (Prochaska and Mendelson 2010). Ferguson (2005) has discussed the prejudices against the postcard which inhibited its use in academic research until the 1980s and which derived from a perception that the picture postcard, like the lantern slide, was a medium of popular culture and was, therefore, an unsuitable format for research. This attitude has altered over time and the use of the postcard is now evident in many and varied research fields.

Many areas of geographical research now use the pictorial postcard image, as they do other photographic images, to track changes over time, in particular if the view is a popular one reproduced and rephotographed over a number of years, if not decades. Within the field of environmental change Thornbush (2008) demonstrated their value in her examination of the vegetation cover on the walls of Oxford colleges throughout the twentieth century. However, Sawyer and Butler (2006) cautioned against an uncritical use as popular destinations, in their case Yellowstone National Park, might provide coloured images which heightened the drama of the view for the visitors. Similarly, Spennemann (2021) has highlighted the problems encountered in heritage studies due to the potential for postcard manufacturers to manipulate the original image, for example by retouching in order either to enhance particular features or to remove details perceived to be extraneous to the desired end result. In Slovakia the historic postcard has been used as a basis for digital processing in order to explore landscape evolution and here the authors warn of the difficulties of determining even relative scale due to perspective distortion present in ground-based photography (Weis and Hronček 2017; Hronček *et al.* 2011).

Tourism studies, similarly, have embraced the medium, although in 2000 Cohen was still able to dismiss postcards as a “useful but minor source of historic documentation” (Cohen 2000: 456). He suggested that because postcards were a “ubiquitous form of imagery”, which as time progressed

began to depict not “local views and events” and the “ordinary flow of life” but to concentrate on “touristic sites and sights”, their research potential was limited to “content analysis and the semiotic” (Cohen 2000: 456). However, in 2015 Foltête and Litot extended the geographical perception of postcard from the locality they portray and their mobility, as defined by the postal journeys they are sent on and discussed by Andriotis and Mavrič (2013), to a consideration of their commercial range as defined by the distance from the portrayed locality to the actual point of sale. Although I do not explore this in detail it is implicit in the abundance of very localised producers and outlets that are encountered in the student descriptions. Postcards have also been considered with regard to aspects of colonialism, not just British, as with the portrayal of South Africa, as an empty land for white people, discussed by van Eeden (2011) but also the difference in subject matter of cards from German (Spennemann 2006) and British (Harrison, D. 2015) possessions in the Pacific region.

Other areas which have ‘discovered’ the value of the picture postcard are garden history where postcards can record both gardens that have been substantially altered over time or have vanished altogether (Elliott, B. 2003). The study of the street landscape is another area where the publisher of local postcards would commemorate new housing developments and infrastructure and their output can be scrutinized for changes in e.g. road surfaces, lighting, modes of transport and the use of trees to enhance the street. Johnston has

used postcards from the early twentieth century to document the impact of the Victorian street tree movement in cities and towns throughout Great Britain (Johnston, M. 2017: chapters 5 and 6). In his research he uses what Rogan describes as the local topographical postcard where it serves as an “icon of modernity” (Rogan 2005: 1, 7–9) and I discuss the use of such postcards by the Oxford students in chapter 6.

The value of postcards to the local historian has long been recognised as a visual record of a locality in the past. However, social historians are now exploring the research potential inherent in the images as Kearns has in relation to strikes and political agitation in Ireland, the images being in juxtaposition to official documents of the events (Kearns, S. 1997). Within the Irish context Wilson has used postcards to examine their use in a developing sense of Irish identity, including the campaign for the recognition of the Irish language (Wilson, A. 2015, 2018). In doing so, Wilson has investigated not just the image and its official caption but also the text added by the sender and other marks added by postal workers, particularly when names and addresses had been written in Irish rather than English as insisted by the postal service and which were then translated into the ‘official’ postal language (Wilson, A. 2015: 113). Such attention to mark making will inform my scrutiny of the annotations made by the students and whether they subvert the intention of the postcard publisher.

The use of the postcard in academic research has, also, led to its renewed consideration as a pedagogical tool. Allen and Molina consider the postcard as a “high-interest instructional material” which can engage the student (Allen and Molina 1992: 106), a refrain also heard in the promotion of the lantern slide. James, K. *et al.* consider the use by university undergraduates using close observation techniques of both sides of the postcard to determine, amongst other factors and echoing Wilson on Ireland, how ideas about Scotland circulated (James, K. *et al.* 2019: 9). Articles in the *Geographical Teacher*, from the early twentieth century, show that the postcard was regarded as a suitable source for illustrative material which could be exhibited in the classroom, along with wall maps and lantern slides (e.g. Simmons 1908: 269). More recently the medium has re-emerged in education as an active learning tool in the realms of “archival skills, analytical thinking, visual literacy, cultural competency, historical and locational awareness”, all skills of relevance to the historical geographer (Wissner 2022: 67).

My research considers a further dimension to the postcard, that of a contemporary educational use, briefly touched upon by Simmons in his requirements for the ideal ‘geographical laboratory’. The ability of the commercial photographer to choose his time and position to achieve the best light and location for the resultant view postcard ameliorated the Oxford

students' dependence on their own photographic skills and the vagaries of the British weather.

2.12 Concept of Vernacular Photography and Disciplinary Vernaculars

In the above sections, looking at the role of photography within geographical practices, I have explored the use of professionally taken and commercially supplied lantern slides and photographs in the form of postcards. However, not all photographs are taken by professional photographers and, particularly within the student descriptions I explore the role of the non-professional or amateur which must be taken into account. In her article on the photographs taken by O'Sullivan in 1868 for use in a book on geology, Krauss began to explore the problems encountered in trying to force practical, scientific images into the, then predominant, category of 'high' art photography (Krauss 1982). This dichotomy between photography as an art form and its use in other fields, including science and education, has led to the formation of other photographic genres, including that of the vernacular.

Since the late 1980s scholars have turned their attention to those photographic images that have not been labelled as 'art' and in doing so they have begun to excavate a history of photography which embraces the everyday. Coleman (1992) uses the term, vernacular, almost interchangeably with the term 'quotidian' to signify the popular, everyday or even mundane. He, therefore, concentrates his attention towards the 'snap shot' and the

family photo album and places his discussion of vernacular photography in the domestic realm. Indeed, much has been written on this aspect of vernacular photography in terms of the familial and the personal album. Rose discusses this aspect of the genre in terms of emotional affect but notes that the imagery was also regarded by the producers as “banal and trivial” (Rose 2004: 549). Indeed, Zuromskis has asserted that “snapshots often seem designed to be as stylistically unremarkable as possible” (Zuromskis 2008: 53). Whilst Sandbye (2014) has sought to include both photographic and cultural theories in her analysis of the family photo album. She regards snapshots and family photographs “not just as images but as social objects that are entangled with the nature of photography itself” (Sandbye 2014: 14).

Advances in computer technologies, including machine learning, are enabling researchers to investigate more quickly the large numbers of images which can be found in collections of family photograph albums. Stacchio and his colleagues reported on such methodology used to analyse a subset of over 16,000 images, from a possible total of 80,000, from family albums spanning the nineteenth and twentieth centuries. They looked at the applicability of computer techniques for social, cultural and historical research and verified their modelling against human analysis of the same subset and concluded that there could be a significant increase in the speed of analysis using machine learning (Stacchio *et al.* 2022). Increasingly, familial photographs are being scrutinized for research areas beyond the socio-historical as evidenced by

Pasternak invoking a sense of geopolitics in the background landscapes present in Israeli family photographs (Pasternak 2013).

In the *Grove Art Guide to Photography* (Sheehan 2017) the ‘special’ topics in photography include not only the vernacular but also anthropology and architecture. Within the discipline of the history of art, Batchen has endeavoured to define what has been labelled ‘vernacular photography’ (Batchen 2000, 2014) but the field is still evolving and there has been much discussion as to what, exactly, can or should be included in the term. More recently Batchen has moved his argument forward to an interest in “what a photograph *does* and *where* it does it” (Batchen 2020: 35/38, emphasis in original).

However, not all authorities agree that the vernacular should be specifically identified with the amateur or untrained, as opposed to the professional or commercial, photographer. Hutchinson has placed an emphasis on the end use of the photographic image which places the vernacular within the context of the community in which it is viewed and circulated (Kaplan *et al.* 2000: 230). This accords with Hunt’s placing of scientific photography within the vernacular spectrum (Kaplan *et al.* 2000: 231). Indeed, Edwards has augmented the term by extending and amplifying it to include what she has termed ‘disciplinary vernaculars’ (Kaplan *et al.* 2000: 230).

So that much which has been written about visual anthropology and the role of the professional academic who is also the photographer in the field (e.g. Edwards, E. 1997, 2015) is, thus, incorporated into the spectrum of the vernacular. Field archaeology is another discipline where photography, taken by the practitioners of the subject, plays an important role, often as part of the official record of the excavation (e.g. Hamilakis *et al.* 2009; Edwards, E. 2013). In 2020 the Museum of Modern Art (MoMA), New York regarded the term ‘vernacular photography’ as an “umbrella term used to distinguish fine art photographs from those made for a huge range of purposes, including commercial, scientific, forensic, governmental, and personal” and notes that “snapshots capturing everyday life and subjects are a major form of vernacular photography”

{ <https://www.moma.org/collection/terms/vernacular-photography> }.

By examining photographs taken in the field by the staff and students of the Oxford School of Geography I can include the resultant images in the category that Edwards has termed ‘disciplinary vernacular photography’. It should be noted that ‘disciplinary vernacular’ relates to the production of images by people involved in the academic discipline, be they the academics or the students. This is not the same as ‘disciplinary visualities’, a term introduced by Rose to discuss the interactions between the display of an image and the audience which views that image (Rose 2003). The former refers to a specific aspect of the production of geographical knowledge, the

latter to the transmission of that knowledge — both of which I discuss in this thesis.

2.13 Conclusion

The preceding reviews of some of the literature which has informed my thinking about the various disciplinary aspects of this thesis has looked at the intersections of the history of geography, archival research and aspects of the history of photography, particularly with regard to more popular artefacts and the democratization of the technology. In the next chapter I move to consider the specifics of my archival research with the Oxford School of Geography's archives which contain those popular artefacts, the glass lantern slide and the picture postcard.

Chapter 3

Sources and Methods

*“Archival research cannot be contained within a single methodology”
(Harris, C. 2001: 330)*

Introduction

This chapter considers the nature of the principal archives used in my research. I, also, discuss the many and varied sources which were consulted in order to provide the information necessary to tease out the underlying themes. These themes form the basis for the arguments I present in subsequent chapters. As Utting has noted the evidence required to elucidate and illuminate the archives is both “scrappy and scattered” (Utting 2022: 77).

My research is based upon an examination of two archives, both of which were uncatalogued in 2018. By being uncatalogued these archives were unknown outside the Oxford School of Geography. This material was, also, relatively unknown even within the Oxford School as it was considered to be either an obsolete format past its use-by date, i.e. the glass lantern slides, or material no longer of relevance to the modern discipline, i.e. the student regional descriptions. One archive, that of student regional descriptions which will be discussed in chapter 6, has subsequently been catalogued by librarians within the Bodleian Libraries at the University of Oxford using international standard printed book cataloguing rules. The other, that of the glass lantern slide teaching collection, still awaits cataloguing and the details which I have drawn together in Appendix 1 will constitute the basis for that cataloguing.

Both archival collections that form the basis of this research initially had very limited extant documentation, in each case a typed list of titles only. For the glass lantern slides the typed hand-list compiled by the staff in the Oxford School of Geography's Library gave the title of each slide and the classification number but no further information and was last used to make a stock check of the collection in September 1972. For the student regional descriptions the typed library hand-list gave the running number, the surname and initial(s) of the student and the title of the regional description, occasionally the date was also given. This very limited information has had to be significantly expanded by the creation of detailed tabulated databases, presented in Appendices 1 and 2, from which information could be extracted and analyses made. In total, three databases have had to be compiled using the archival collections of the Oxford School of Geography and research material external to these collections in order to provide the evidence for the relevance of the photographic in the production of geographical knowledge in Oxford in the early twentieth century. Harris's epigraph was written in the context of multiple researchers bringing their own experiences, personalities and cultures to an archive. However, it also holds good for the methodologies required for a single researcher to fully digest and synthesize the amount of complex information that can be uncovered from an archive.

The process of uncovering the information, latent within the two principal archives, was time consuming. The empirical research required to

establish the detailed catalogue for the glass lantern slides took twelve months, whilst for the student descriptions a further six months of intensive work was required. This intensity was dictated by the imminent implementation of new library software which curtailed the movement of the student material.

The principal database, relating to the glass lantern slide teaching collection of the Oxford School of Geography, is presented in Appendix 1, abstracted in Annexes 2 and 3, and discussed in chapters 4 and 5. By elucidating the sources used to create this collection, I attend to the questions of content, audience and intention of the users of this visual imagery. I also return to the context in which photographic imagery was both created and employed in the production and dissemination of geographical knowledge in early twentieth century Oxford. This investigation into the context of the creation of the imagery also allows me to elucidate the evidence within the collection of glass slides for the creation of a disciplinary vernacular photography.

The second archive, the student regional descriptions, is presented in Appendix 2, abstracted in Annexe 4, and discussed in chapter 6 where it will be, similarly, used to attend to the questions and context that I addressed within the previous archive. Additionally I will, also, be able to attend to the reception of the geographical knowledge transmitted by the Oxford academics.

In order to assess the impact beyond the university of the photographic imagery present in these two archives, I sought to establish the careers of the diploma students by creating mini-biographies for them. This genealogical research took a further six months. The outcome of the research is tabulated in Appendix 3 and discussed in chapter 7 enabling me to draw attention to a broader context in which photographic imagery was employed in the promulgation of a discipline as it emerged in the late nineteenth and early twentieth century.

Initially, this broader context was to include the use of the geographical writings of the students. However, a thorough search of the contemporary literature through the use of the Bodleian Libraries online catalogue {<https://solo.bodleian.ox.ac.uk/>} for book material, and journal archival sources, principally the *JSTOR Archival Journal & Primary Source Collection* {<https://www.jstor.org/>} and the *Taylor & Francis Geography, Planning, Urban and Environment Online Archive* {<https://www.tandfonline.com>}, revealed that very few of the students wrote for, or were published in, the geographical literature. This specific aspect of onward transmission had, therefore, to be relegated to occasional references in chapter 7 rather than contributing in a major way to my arguments.

3.1 What is an archive?

The general public understanding of the word ‘archive’ is a stored and curated collection of historical material, the most common format being that

of the written document. However, the word can refer to both the stored material and the place where it is stored. Archival research is most closely associated with the work of historians as they seek to uncover and establish facts about the past. Researchers, historians in particular, caution against taking the evidence at face value and seek to cross verify their interpretation through the examination of more than a single source (Tosh 2015).

But as Schwartz has noted the archive, as an institution, is one part of a ‘trinity’ of heritage information institutions, along with the library and the museum (Schwartz, J.M. 2020a: 962). She has commented that these institutions approach their contents with different emphases, namely that an archive places importance on the origin of its collections, the library on the information content and the museum on the aesthetics. However, she acknowledges that in “everyday parlance” archive refers to “any collection of old documents or historical photographs” (Schwartz, J.M. 2020a: 963) and it is in this context that I use the word as my archives are, more properly, library collections. However, by thoroughly investigating and creating very detailed tabulated datasets, I have transformed unknown and unused collections into archives accessible to the researcher. I noted in chapter 2.6 that Craggs had discussed the role of a library in the creation of knowledge, in her example specifically geographical knowledge. As she notes in her article concerning the Royal Empire Society the collection was “discussed as both Archive and

Library and this slippage between these terms is indicative of the difficulty in defining this unique collection” (Craggs 2008: 67). She also recognises that:

“‘Archive’ is problematic, not only carrying strong associations with the past, but also denoting certain conventions of structure, practice and use, schemes of access and rationales for existence which differ from those which accompany a ‘library space’.”
(Craggs 2008: 67)

Her work is, therefore, of relevance to the Oxford School of Geography as its library also contained so much more than books.

Craggs discusses the former library space at the Royal Empire Society in London as a site of both knowledge creation and preservation which was informed by the processes “by which materials are collected, ordered and displayed”, including the library specific practices of cataloguing and classification (Craggs 2008: 49–50). These processes were tailored to the specific needs of the institution so that a generalist classification system, such as Library of Congress or Dewey Decimal, was deemed inappropriate. In her study, Craggs noted that “the classification divided materials by geography - with a numerical code denoting different countries - and then by subject - with each category allocated a specific letter” (Craggs 2008: 54), a system which exactly tallies in principle with the one used by the Oxford School of Geography, not only for its book material but also for its lantern slide collection. Such a system reflected the academic approach to geographical knowledge from the end of the nineteenth century up to the start of World War II and I discuss the Oxford system in greater detail in chapter 5. Craggs also comments on the impact of relocation on the formation of knowledge

spaces, again resonating with the experience of the Oxford School of Geography Library when it was relocated away from the School and absorbed into the larger knowledge spaces of the Bodleian Libraries system.

Within the Oxford School of Geography, the departmental library became the de facto archival space for material not directly associated with the administration of the department. Until the relocation, in 2005, of the School out of a building it had occupied since 1922 the main users of the archive were people researching the life of the first director, Sir Halford Mackinder (e.g. Blouet 1975, 1987). The relocation also meant that the material in the archive suffered from an ‘archival diaspora’, as identified by Punzalan (2014), as it was dispersed across several sites within Oxford University. The Oxford University Archives, held within the Bodleian Library, accepted all textual material construed as relating to the administration of the department. However, textual materials relating to individual academics, such as Mason and Mackinder, were transferred to the Special Collections of Western Manuscripts in the Bodleian Library, where they await detailed cataloguing which will render them accessible. Whilst printed photographic material was accepted by the Pitt Rivers Museum to complement their own photographic collections, some models used in teaching were transferred to the Museum of the History of Science, and finally other photographic imagery, such as the glass teaching slide collection, remained within the library when it was also relocated out of the departmental

building in 2007 and into the Radcliffe Science Library (S. Bird, pers. comm.).

Lorimer and Philo discussed not only the locational aspects of the Glasgow archive but also the ordering of the deposits within it. They queried that ordering by asking whether it “can be assumed, however, that an ordered archive necessarily should give rise to an orderly account based upon this order?” and suggested that “the researcher needs to be suspicious of the apparent order, and instead to seek out ‘cracks’ in the façade” (Lorimer and Philo 2009: 229). Ordering and re-ordering are commonplace within working collections as they are augmented and as their pedagogical use alters through time. One researcher using the textual archive relating to Mackinder located within the Oxford School of Geography Library, during his work on a biography of Mackinder, acknowledges that he re-ordered the material as he examined it: “a black tin trunk was taken into the library and with the help of the School’s librarian, Elspeth Buxton, I sorted the papers into general categories and listed them” (Blouet 1987: vii). Similarly, it is known that the Oxford lantern slides have been re-arranged on at least one, and possibly more, occasions: “Wall maps and lantern slides have been re-arranged & re-catalogued by Mr. Becket (acting as Librarian)” (*Oxford University Gazette* 43(1390): 502 (1912)). Henry Oliver Becket (1874–1931) had been appointed as assistant to Herbertson in 1908 and succeeded him as director of the Oxford School of Geography in 1915. Before the appointment of Kenneth

Mason to the professorial chair and the institution of the Final Honours School in Geography in 1932 the staff of the Oxford School was limited to three, occasionally four, academics with the addition of a general clerk, who could also act as the School's photographer, creating lantern slides from published material. I discuss the role of the School's photographers further in chapter 5.6. After 1932, the School appointed a secretary who would also act as both lantern slide creator and assistant librarian. The role of librarian was, until 1965, reserved for an academic member of staff with the actual library work being devolved to the assistant (Baigent *et al.* 2020: 76–77). The merging of the roles of secretary and assistant librarian, before 1953, would account for the presence of the slide collection in the departmental secretary's office and its subsequent relocation into the new, purpose-built, library in 1969. The appointment in 1953 of a professional librarian ensured that a handlist of the lantern slide collection was compiled which has formed the basis of my research and the construction of Appendix 1.

I suggested above that the Oxford School of Geography teaching collection of glass lantern slides, now within the collections of the Bodleian Social Sciences Library, is both unique and an exemplar of teaching collections in other UK geography departments. I, also, noted above that the School's librarian from 1953 to 1990 was always reluctant to discard material (Baigent *et al.* 2020: 77) in contrast to the situation within the University of Oxford, Institute of Archaeology.

3.2 Methodological Perspectives

Developments, since the late 1980s, in the concepts of ‘slow’ as a reaction to what is perceived to be an increasingly ‘fast’ paced world have encouraged using increased amounts of time to study phenomena. As Tishman has noted this involves moving beyond first impressions, the fast, to a “more immersive, prolonged experience that unfolds slowly over time” (Tishman 2017: 5). She has extended what was originally conceived as a museum / art orientated practice, slow looking, into a more general way of extending a glance into an encounter. Slow looking has been defined as “simply the art of learning through observation” (Brown 2020) and is, therefore, particularly applicable to the geographer developing the ‘eye for country’ in the field. By engaging with slow looking at the photographic products used by the early Oxford geographers, and in particular, the students re-presenting their field experiences in their regional descriptions, I can invoke the transmission of geographical knowledge from the academic to the student. Geographers are beginning to explore such methodology as Watson, in her analysis of radio broadcasts relating to migration, has demonstrated (Watson 2023). In order to achieve her thematic analysis, she drew on the methodology of ‘close listening’ conceived by Hoffmann (2015). Such aural methodology can be regarded as analogous to ‘slow looking’ in the visual arena.

My research is investigating the specific situatedness of the students’ encounter with the visual, both within the multimodal context of the lecture

theatre of the School of Geography and the extension of the academic beyond the physical site of the university into the practical context of the field excursion. As the discipline of geography has always been regarded as having a significant visual component (Driver 2003; Rose 2008; Sidaway 2002) and my research is concerned with the reception of that component of knowledge by the students of the Oxford School of Geography one methodological perspective on this research, therefore, is afforded by Daniels. He sought to explore the concept of a 'field of vision' and how a single image could produce many such fields (Daniels 1993). By investigating the sources used in the production of the glass teaching slides a partial biography of some of the images can be established. This will enable a consideration of the varied audiences that the content of the slides was intended for and, thus, the different visions, or interpretations, of an image that were engendered by the sites of transmission in which the images were displayed. This approach also involves a consideration of Appadurai's concept of the 'social life of things' (1986) which plays into the investigation and construction of the biographies of the images. Again, this will be particularly explored in relation to the glass teaching slides but is also relevant to the illustrative material submitted by the students as they included commercial postcards, not obviously intended as aids to academic field work, as well as their personal photographs.

3.3 Approaches to the Methodology

My research uses an empirical approach by directly investigating two archives of the Oxford School of Geography. I am drawing attention to these two collections within the University of Oxford, and I am investigating the photographic in the 'everyday' visual experience of the early Oxford geography students, whether that be in their collective experience in the lecture theatre or their individual study in the field.

In order to explore this experience, it will be necessary to establish links between the illustrative material used by the academics in their lectures, specifically that provided by the glass teaching slide collection, and the illustrative material submitted by the Diploma in Geography students as an integral part of their regional descriptions, based on their personal field work. This will be done by compiling detailed, tabulated datasets of these two sources. From the databases categorical, or qualitative, statistics will be abstracted to analyse the themes that emerge from a coding, or assignment, of the source type of each image. Systematic keywords, analogous to a librarian's subject headings, for each image will also be assigned during the construction of the tabulated databases.

In the time period under consideration, the Oxford School of Geography's geographical praxis was uniformly that of regional geography. This is exemplified by the examination rubric for this subject which, with only very minor amendments, was essentially unaltered during this period.

“A cartographical analysis of the physical regions of the world. An elementary knowledge of the chief generalizations regarding the surface forms of land, the movements of air and water and the distribution of plant associations, animals and man. The chief facts of modern political and economic geography considered in relation to the influence of physical features.” (*University of Oxford Examination Statutes 1906: 236*)

“A general knowledge of the surface forms of the land, the movements of air and water, the distribution of plant associations and Man. The analysis of the physical regions of the world, and a study of the influence of geographical conditions generally upon Man, especially in his economic, social and political relations." *together with* "A thorough knowledge of all aspects of the geography of one or more selected areas paying special regard to the conditions of life of the inhabitants as affected by and affecting their geographical environment.” (*University of Oxford Examination Statutes 1931: 325–326*)

As a consequence of this epistemology, a key element for Oxford students was the ‘Geographical account (or description) of a selected area’, which was introduced in 1906 and formed a compulsory part of the Diploma and Certificate courses offered by the Oxford School of Geography. It remained compulsory in Oxford’s Geography Honours School until 1969 and a specified option until 1980, though this approach was being seriously challenged in the wider discipline after World War II. Because of Oxford’s resolute adherence to this approach, the systematic keywords or tags in the catalogues will be developed from the structure of the student regional geographical field work descriptions and they are detailed in Annexe 1.

Although the datasets involved and the tabulated catalogues that were constructed to provide those datasets cannot necessarily be construed to involve the concept of practice-based or practice-led research as now found within the arts and humanities (Candlin 2000; May 2015; Birkbeck College 2016), they do inform the nature of the experience in the acquisition of

knowledge. My previous career as a qualified academic librarian will enable me to compile the tabulated catalogues in a manner that will allow the datasets to be used, subsequent to the research, as a means of more readily accessing the objects within the archives involved.

3.4 Categorization and Thematic Analysis

The construction of the tabulated databases in Excel spreadsheets involved the early consideration of the nature of the information that was being collected. For the glass lantern slides each has a unique classification number which formed the basis of the organization of the spreadsheet. From this starting position the spreadsheet has the following 9 column headings: number, handlist title, photographer, descriptive notes, HEIR ID reference number (if the image had been digitized, discussed below), keywords (discussed below), source type, actual source and finally extra notes. This organization also allowed for the inclusion of an extra column should a significant phenomenon become apparent during the scrutiny of the images. In order to make the analysis manageable the overall spreadsheet contains 34 separate sheets, all following the same pattern and divided according to the library classification by which the slides are ordered. This will enable any specifics relating to particular subsets to be identified.

Similarly, each regional description had a unique sequential number. Therefore, for the student regional description spreadsheet the 10 column headings were: number, surname followed by forename(s), year submitted,

region involved (this could be an abbreviated form of the actual title), page number (only if the illustrative material was incorporated into the text), title of illustration together with any numbering assigned by the student, type of material, size of illustration (but only for photographs taken by the student), keywords and finally extra notes. Again, in order to make the data manageable this overall spreadsheet contains 30 separate sheets each containing a number of descriptions, the exact number per sheet depending on the amount of illustrative material present as this varied from 6 items to 295.

The allocation of either a source type for the slides (from a commercial lecture, published material or academic's own photograph, etc.) or the type of material used by the students (personal photograph, postcard from a local publisher or a postcard from a national firm, etc.) enabled a basic categorization of the types involved. This, then, could be used to engage with a basic type of thematic analysis of the material in these two archives, an essential requirement in the discussion of the content, audience and intention of the imagery.

3.5 Systematic Keywords

The geographical tags / keywords, detailed in Annexe 1, were carefully considered in advance of the construction of both tabulated catalogue datasets so that there was a uniformity of approach and a consistency in application. Such a rigorous approach to the formulation of the keywords requires a prior knowledge of the material to be used in the construction of the datasets and by

considering the expected, and uniform, structure of the students' dissertations a set of top-level tags could be established. Further subdivisions within each category were broad enough to encompass a degree of variability within both the teaching slides and the dissertations. Close observation, a hallmark of slow looking, of the illustrative material in the student field-work brought to light latent content which illuminates the personal interests of the individual student, e.g. Phyllis Wray-Bliss (1899–1985, diploma 1921) and bridges (Wray-Bliss 1921) or George Albert Tue (1891–1963, diploma with distinction 1922) and ornithology (Tue 1922).

Content tagging — creation of structured keywords to be applied consistently — ensured I also scrutinized the lantern slides carefully and did not just rely on the title strip or caption, if one was visible. By using such slow looking I engaged fully with each image and ensured that the databases can be used for further work by future researchers who will be aware of the content before they interrogate the archive.

3.6 Sources used in the Construction of Appendix 1

The teaching collection of glass lantern slides was relegated to an unlit, 'dead-end' cul-de-sac located under a flight of stairs in the library of the Oxford School of Geography in the Mansfield Road building until that building was vacated by the School and the library incorporated into the Radcliffe Science Library. As such it was a 'hidden space' as discussed by Lorimer and Spedding (2002). Departmental libraries frequently become the

repository of material either relocated from the offices of academics as they leave or retire from the department or departmental material perceived to have become redundant in its format. The teaching collection of glass lantern slides, in its bespoke wooden cabinet drawers, fits into the latter category.

I noted in chapter 2.7 the HEIR initiative conceived in 2014 and based in the School of Archaeology at the University of Oxford. The School of Geography was invited to join the project at its beginning and to date 64% of the pre-1940 Geography teaching collection has been digitized, numbering 1,593 photographic images. This digitization shows the viewable part of the slide rather than the slide in its entirety and can be searched via <https://heir.arch.ox.ac.uk/>. Where appropriate, information that I have ascertained during my research has been passed to the HEIR project for incorporation into their database. The second phase of this project will enable the digitization of the remaining slides in the teaching collection showing maps and diagrams.

A preliminary examination of the total slide collection, which numbers some 13,800 and includes the personal collections of 35 mm. as well as glass 3¼ inch slides from former academics, revealed that, at the present moment in time, the most fruitful research would come from a detailed examination concentrating on the glass teaching slide collection. In the investigation of the sources for the slides it became apparent that a percentage were created after the time period under consideration. The lack of lecture notes or transcripts

also meant that the termly lists of lectures, published in the *Oxford University Gazette*, had to be consulted to provide a partial context for the use of this collection.

The total size of the teaching collection is 3,338 but, because of the paucity of the extant information (title only), no sampling could be undertaken and each individual slide had to be examined in detail. Correlation with the typed list revealed that 174 (5%) were either listed as missing in 1972 or have since been mislaid. The first task was to establish the subject matter of each item — whether it was a photographic image or a map / diagram. Overall, non-photographic material makes up nearly 41% of the collection but this figure masks the difference between slides which can be dated to before 1940 and those created post World War II, where the percentage is greater. The next task, occurring in tandem with the first, was to establish a potential date for the image. This enabled the collection to be divided into pre- and post-1940 sections, the former constituting 74% (2,457) of the whole and reflecting the decline of the lantern slide as a teaching aid in the later twentieth century before its total demise during the 1970s.

The teaching slide collection is currently arranged according to the classification scheme of the School's Library, which was derived from that of the RGS, and within each section the arrangement is a straight numerical order which originally would have related to the acquisition date. The classification scheme provides for general thematic sections, which reflected a

significant part of the content of the academic lectures and which should be paralleled in the student work, and regional sections covering the entire globe. Indeed, as the printed library collections developed and expanded the regional books were specifically subdivided by the thematic classification.

This first archive to be analysed is composed of the teaching collection of 3¼ inch glass lantern slides acquired and augmented by the Oxford School of Geography from 1901, only 2 years after its inception in 1899. These artefacts continued to be used until the 1960s and early 1970s when they were gradually superseded by academics' personal 35mm. slides. These glass lantern slides form part of a much larger collection of slides from the Oxford School of Geography Library, now incorporated into the University of Oxford Bodleian Libraries. The teaching slide collection is significant because glass slides are susceptible to breaking so for over 3,000 to survive is remarkable. This collection is also significant because, with developments in technology, many such collections have been disposed of as being redundant as witnessed by the RGS culling of their collection of lantern slides in the early 1950s.²⁷

The detailed catalogue provides, *inter alia*, information as to the source of acquisition of each slide and thus enables an analysis of the various sites of production that were used to present an apparent single cohesive site of transmission in the lecture theatre. These results are presented numerically in

²⁷ e.g. 12 slides of Yunnan, China made to illustrate a paper by F.W. Carey, read 19th February 1900, this collection originally comprised 38 slides - 26 destroyed/faded, 30th January 1951 — information from <https://rgs.koha-ptfs.co.uk>, accessed 10 March 2024.

Annexes 2 and 3 and used to make comparisons between the proportions that the various sources contributed to the overall collection.

Although not obviating the methodology a cautionary note must be sounded as, by examining the details in the School's library accession books now in the University Archives, the estimated total by 1925 was 3,600. This total was subsequently added to as evidenced from the dating of the slides in the collection. Some of this discrepancy could be accounted for by breakages, indeed some of the slides still in the collection are badly cracked. The accession details of lantern slides ceased to be recorded after March 1924 and there are gaps in the records before that, noticeably nothing is recorded between November 1908 and January 1911. (University of Oxford Archives, GE 7/1-6, GE 8/5). The University of Oxford Archives also hold the cash account books of the School of Geography (University of Oxford Archives, GE 3/1-6) which were used to supplement the information in the library accession books.

In order to populate the tabulated catalogue each lantern slide had to be examined for a manufacturer's name, logo or trademark. Any such name could be explored in the Lucerna database {<https://lucerna.exeter.ac.uk/>}, an online resource which includes details of slide sets, slide images, readings and other texts related to slide sets, etc., the site also contains details and links to manufacturers' catalogues. Without any further information as to original photographer, manufacturers' information was recorded in the column headed

photographer and details of the slide set it was part of, as well as latest date of manufacture were placed in the descriptive notes' column.

The column headed 'actual source' was principally used for information relating to slides containing images taken from publications and most frequently created within the Oxford School of Geography, a process discussed further in chapter 5.6. A wide range of bibliographical sources were consulted to assist in the assignment of a publication to a particular image. Full text online databases proved most useful as they could be searched using the caption, not the title, present on the slide. The two principal such archival websites used were the Internet Archive {<https://archive.org/>} and the Hathi Trust Digital Library {<https://www.hathitrust.org>}. An unexpected consequence of the Covid pandemic restrictions preventing physical access to libraries was that the Bodleian Libraries could avail themselves of Hathi's emergency temporary access service. This service gave full text access to all of Hathi's digital library, including copyrighted publications not normally available. The list of on-line bibliographical sources consulted via the University of Oxford Libraries Services

{<https://www.ox.ac.uk/research/libraries>} included:

- Oxford online library catalogue, Solo {<http://solo.bodleian.ox.ac.uk/primo-explore>}
- JISC Library Hub Discover {<https://discover.libraryhub.jisc.ac.uk/>}
- JSTOR {<https://www.jstor.org/>}

- Taylor & Francis Geography, Planning, Urban and Environment Online Archive {<https://www.tandfonline.com/>}

The British Geological Survey Geoscenic database

{<http://geoscenic.bgs.ac.uk/asset-bank/action/viewHome>} was trawled but needed to have its information correlated with the lists published in the BAAS annual meeting reports as Irish images, present in the Oxford collection, are not included in the Geoscenic database. From these two sources the date of the photograph and the actual photographer could be established but not the date of acquisition by the School of Geography. Further searches, where appropriate, were also conducted in the following special collection catalogues:

- St. Andrews University for J. Valentine & Sons imagery {<https://collections.st-andrews.ac.uk/collection/james-valentine-photographic-collection/355825>}
- University of Aberdeen special collections for G.W. Wilson imagery {<https://www.abdn.ac.uk/collections/our-collections/george-washington-wilson-collection-152.php>}
- National Museums Northern Ireland for R.J. Welch imagery {<https://www.nationalmuseumsni.org/>}.

As the interrogation of the lantern slides progressed it became apparent that an extra column needed to be added to the database to accommodate the noting of a particular type of handwritten caption which appeared on slides in the Asian, African, American, and Australasian with Oceania sections. This led to a scrutiny of the detailed lists of photographs received by the RGS and

published in the *Geographical Journal* in the articles titled ‘New maps’.²⁸ Not all the photographs listed in those notices are now listed in the RGS collections catalogue, KOHA, {<https://rgs.koha-ptfs.co.uk/cgi-bin/koha/opac-main.pl>} and even fewer are found on the Getty images website {<https://www.gettyimages.co.uk/>} or within the RGS images in their picture library {<https://images.rgs.org/>}.²⁹ The presence of this particular type of caption is discussed in detail in chapter 5.4. The discipline involved in slow looking at each slide and the transference of the information so retrieved to the catalogue in Appendix 1 in addition to the extra information obtained from the resources detailed above enabled a much more nuanced discussion of the material in the slide archive than would have been possible if the catalogue had not been constructed.

3.7 Sources used in the Construction of Appendix 2

The second database, relating to the illustrative material in the student geographical descriptions, will expand the laconic library catalogue entries for this material (e.g. 1 volume (various pagings): illustrations, maps, photographs) and enable conclusions to be drawn concerning the production and transmission of geographical knowledge.

²⁸ e.g. Carey’s collection of 99 photographs of the Shan States in 1899 was listed in Reeves, E.A. (1900) ‘New maps’. *Geographical Journal*, 15(6): 677–680.

²⁹ e.g. Only 1 Carey image is present in the RGS Picture Library.

The early diploma regional descriptions had a more peripatetic existence being located in a basement of the Oxford University Examination Schools building until the 1990s. They were, then, returned to the department at which point in time there was not enough shelf space for the entire collection. The descriptions that contained illustrative material, or were identified as being authored by significant figures, such as Eva Germaine Rimington Taylor (1879–1966, diploma with distinction 1908), were retained by the department. The criterion of the presence of illustrative material was informed by the acknowledgement that such material can form the basis of re-photography projects. Such projects can then play into research on developments over time, such as biodegradation or environmental change. Those not so selected for library retention were passed to an early career researcher in the department who stored them in her house for over two decades. During this time a part of that subset was passed to an academic at the University of Nottingham. I was able to contact that second academic and agree the return of the early diploma descriptions without illustrative material to Oxford as the Bodleian Libraries had opened its large book storage facility in Swindon in 2010, thereby providing the necessary space for the re-addition of this material to the geography collections. Before being transferred to the storage facility agreement was made with the Bodleian Social Sciences Library that the staff would undertake the requisite cataloguing to enable that transfer to occur. Unfortunately, the first academic, during several moves had

decided to dispose of the rest of the unillustrated descriptions. As Stuart, echoing Lorimer and Philo, found “after ordering and collating disorderly archives, that what is collated will be incomplete” (Stuart 2019: 1012; Lorimer and Philo 2009).

The expansion of the original library hand-list into the detailed listing in Appendix 2 enabled Bodleian Library cataloguers to correctly identify the authors of each description as full names were not always present within the description text. Following official cataloguing to international standards for printed book material the descriptions were relocated again to the storage facility from where they can be retrieved for consultation in central Oxford. However, printed book cataloguing standards preclude the incorporation of the details of the content beyond a cursory statement of the physical format e.g. “2 volumes: illustrations, maps (some colour), photographs; 32 cm” (J.T.M. Biggar), or “79 leaves, 16 unnumbered leaves of plates: illustrations, photographs; 27 cm” (G.M. Marten), or “71 leaves: illustrations (colour); 27 cm + Book of diagrams + 3D map” (M. Russell). All three of these descriptions are further considered in chapter 6 where examples of the illustrative material they contain are discussed and reproduced.

This second archive being explored is the collection of, mainly, typescripts of regional descriptions submitted by students as part of, initially, the Diploma in Geography from the Oxford School of Geography. This collection is significant because it is possibly unique in the country as it

consists of student field work submitted for examination from 1906 to date. Because of the volume of such work, it is more generally returned to the student or otherwise disposed of as universities rarely have the space to accommodate the material. Today, the School of Geography only retains undergraduate dissertations which are awarded prizes but, in the period up to World War II it would appear that a copy of a significant proportion of the submitted field work was retained. 423 students completed the certificate and diploma courses between 1906, when the ‘Geographical Description of a selected area’ was introduced as a compulsory part of these examinations, and 1939, when the last student was examined for the diploma. All students were expected to include illustrative material, as indicated in the 1906 rubric for the description (*Oxford University Gazette*, 36(1167): 410). However, only 254 (or 60%) of the diploma descriptions between 1906 and 1939 survive of which 180 still retain their illustrative material. One of those textual only descriptions [Edith Maud Day, 1899–1975, diploma 1931] is annotated with a note to say that “the illustrations were collected by Miss Day in July 1947 (Returned to India Sept 1947)”. The illustrative material is an eclectic mix of personal photographs, which I am designating as ‘disciplinary vernacular’ images, commercial postcards, field sketches and, in a few cases, watercolours done in the field. This second site of production is explored and analysed more fully in chapter 6. As the School of Geography Library, now incorporated into the Social Sciences Library of the Bodleian Libraries,

continues to collect those undergraduate dissertations that receive departmental prizes the listing is still maintained, albeit with a much less comprehensive coverage.

To assist in the identification of the students, departmental manuscript material, now located in the University of Oxford Archives, was consulted. This included GE 6A/2 (Registers of student attendance at lectures, arranged alphabetically, 1899–1912), GE 6B/1–2 (Registers of lecture courses with the names of students attending, including attendance at practical classes and names of diploma and certificate students, 1899–1919) and UR 3/5/33/1–2 (Registers of examinations for the Diploma and certificates in Geography, 1901–1939, formerly GE 6/1–2). It was also necessary to consult the *Oxford University Gazette* for the lists of successful candidates. This was on a termly basis and the number, but not names, of failures was occasionally reported. As it emerged that there were in the archive descriptions produced by students who for various reasons failed to complete the course the attendance registers took on an added significance.³⁰

In order to populate the tabulated catalogue of the students' illustrative material each description was examined and the separate details of every incidence of such material listed. In total this amounted to 11,305 entries, which was more than I had initially envisaged. However, the size of the

³⁰ e.g. Mabel Florence Wadmore (1884–1935) provided a 'Certificate of course of study at Oxford' when she registered with the Teachers' Registration Council in November 1914, having submitted her description, which survives without illustrations, in the summer of that year.

resulting sample from only 43% of the possible number of descriptions will not invalidate any conclusions drawn. The types of illustrative material present in each student description were abstracted into Annexe 4. I continued to attach keywords to each image in order to assist future use rather than undertake any analysis myself. As not all students made any direct reference to specific illustrations, this again involved the concept of slow looking on my part to determine the most appropriate tags. Although not used by me, I decided to include the dimensions of personal photographs taken by the students as it may assist future researchers who have a greater knowledge of, and interest in, the cameras of the period.

The greatest amount of research time for the construction of this appendix was taken up by determining the origin of the postcards incorporated by the students. As it was not always possible to view the verso of the postcards, due to the nature of the paper and glue involved, it was necessary to use online marketplaces, such as eBay, in an attempt to attribute the company involved. This method was also employed when there was no direct indication on either the recto or verso of the origin of the artefact.³¹ The default position was that postcards with no identifiable publisher should be regarded as being produced locally to the region. The rationale for this being

³¹ e.g. the inclusion by Mary Kingdon Heslop of a postcard titled on front ‘Shillmoor, upper Coquet’ with the number 776 has been identified, using eBay and a postcard seller in Newcastle-upon-Tyne, as by W.P. Collier of Bellingham, Northumberland (<https://www.ebay.co.uk/itm/296199782508>, accessed May 2023 and 11 March 2024). This enabled further attributions of postcards with similar numbering and handwritten titles.

that the larger, national firms usually identified themselves in some manner, often on the front as well as the back of the card. This is the case with the following producers: JV for Valentine and Son of Dundee, Judges of Hastings, Frith of Reigate, Photochrom of Tunbridge and London, and the WHS Kingsway Series. The Francis Frith collection website {<https://www.francisfrith.com/uk/search>} also enabled a postcard to be dated to before the use by the student, otherwise there was little dating evidence available apart from the date of the student's description. As with the details available in Appendix 1 the information present in Appendix 2 yielded a better understanding of the students' use of visual imagery than would have been possible had the catalogue not been constructed.

In both cases the principal datasets found in Appendices 1 and 2 yielded detailed numerical material which has been placed in Annexes 2, 3, and 4. This could then be further condensed into descriptive statistical tables in the main body of the text. For the third dataset in Appendix 3 the methodology changed to one of a biographical, rather than bibliographical, nature.

3.8 Collective Biography

Traditionally biography, as a genre, implies a detailed consideration of the entire life of a single individual, including their milieu and impact. However, this is not always possible and other modes of life-writing, including the fragmentary, have arisen as Baigent notes in her recent review of the role of biography within the history of geography (Baigent 2024).

Collective biography is one such methodology but one which has bifurcated in recent years. Collective biography was defined by Sturges as “any project which involves the systematic assembling of biographical data on a group of people” (Sturges 1983: 316).

One strand within collective biography is the qualitative approach using memory work and shared living experiences as described by Hawkins *et al.* (2016). The other strand takes a more traditional quantitative approach and has been equated to modern historical prosopography. In his seminal paper on this subject Stone defines prosopography as “the investigation of the common background characteristics of a group of actors in history by means of a collective study of their lives” (Stone 1971: 46).

Stone asserts that one object of the methodology is “to identify social reality, and to describe and analyse with precision the structure of society and the degree and the nature of the movements within it” (Stone 1971: 47). However, he also cautions that because the subjects of such collective biography are “dead and therefore unavailable for an interview” this more statistically minded mass school of enquiry, which usually deals with a large number of subjects, may have little that is very detailed for a proportion of those subjects. Such methodology, Stone asserts, “works best when it is applied to easily defined and fairly small groups over a limited period of not much more than a hundred years, when the data is drawn from a very wide variety of sources which complement and enrich each other” (Stone 1971:

69). As Maddrell notes when the subjects have long since died “biographies [must be] pieced together, from the oral histories of others where relevant, from an individual’s papers where these exist, from public records such as birth and death certificates, obituaries, employment records, geographical and institutional archives, publications and secondary sources” (Maddrell 2009: 18). It is, therefore, the slight traces left by the everyday lives of minor players that must be unearthed by persistent searching in public records with which I engage to construct a collective or group biography of early Oxford geography students.

Stone’s reference to groups, noted above, suggests another life-writing genre — that of group biography. Baigent, in her discussion of the New D.N.B., identifies the group biography as a device for “including people about whom individually there may be little to say and who in any case derived their importance from membership of a group, either formally constituted, or retrospectively identified” (Baigent 2004: 542). She goes on to link such biography to “the re-emergence of prosopography [defined as] the study of society in terms of its constituent groups”. Moore (2016) similarly equates prosopography with group biography, whilst Hay describes group biography as “telling multiple lives together” (Hay 2017: 248). Hay, also, notes that group biography allows the researcher to “celebrate the richness of the ordinary alongside the exceptional” (Hay 2017: 255) and it is the ordinary student whom I am investigating in this thesis. As such, it also contributes to a

deeper understanding of the institution of the Oxford School of Geography during a particular period of its existence and, therefore, becomes part of the institutional prosopography or “the collective biography of an institution” as discussed by Dando in her work on the geography practised at Hull House, Chicago (2014).

The use of ‘representative biography’ allows more detailed exemplars from a collective biography to be used as potential illustrations which shed light on that collective. This was the approach adopted by Baigent *et al.* (2020), where I contributed short biographies for the following diploma students: Joan Berenice Reynolds (Baigent *et al.* 2020: 82–83), Dorothy Forsaith (Baigent *et al.* 2020: 84–85) and Marie Bentivoglio (Baigent *et al.* 2020: 85–88). The use of representative biography was also invoked by Maddrell in her exploration of the role of women in geographical education (Maddrell 2009: 123–151), where she gives short biographies of several Oxford diploma students (E.J. Rickard, C.A. Simpson, G. Marten and E.M. Coulthard) in order to provide “nuance to the bigger picture” (Maddrell 2009: 19).

As yet, there have been few, if any, biographies of the male diploma students apart from those, in *Geographers: Biobibliographical Studies*, who went on to have major university careers such as W.G. Kendrew, C.B. Fawcett, J.N.L. Baker and E.W. Gilbert. Others have been memorialized in

obituaries in the *Geographical Journal* (e.g. G.H. Daysh and O.J.R. Howarth) but the majority await more detailed examination.

3.9 Sources used in the Construction of Appendix 3

The third database adopts a biographical methodology to ascertain details of the students' social status but is primarily concerned with the careers they pursued. As all of the students who obtained the Oxford Diploma in Geography are now deceased only publicly available genealogical sources were used to construct this database. This approach has some limitations, in particular with regard to careers followed after 1940 and more particularly with regard to the female students whose names changed if they married. The construction of the mini-biographies in this appendix enabled the determination of a number of parameters which were then visualized in graphic form within chapter 7 in order to provide an analysis of a particular cohort of students in the Oxford School of Geography. This database will, also, enable me to consider the further transmission of geographical knowledge at a crucial time for the establishment of the discipline in schools, and the applicability of reproducible skills acquired as part of the geographical training given by the Oxford School of Geography.

Unfortunately, the Oxford School of Geography has no records of students before the introduction of the Final Honours degree in 1932, although some details can be gleaned from the lecture attendance lists in the University Archives (1900–1920) and the published lists of successful

students in the *University of Oxford Gazette*. The records of students after 1932 do not usually contain details of their subsequent careers. This lack within the School of Geography's records means that information on individuals must be gleaned from a wide variety of sources. The mini-biographies were, therefore, compiled using publicly available information in on-line genealogical databases. In particular material available in the 1901 and 1911 UK, including the whole of Ireland, censuses, the 1939 Register of the Civilian Population for England and Wales, and the registers of the Teachers' Registration Council 1914–1948 was scrutinized. Because these resources are available online it was possible to consult them during the imposition of severe lockdowns at the beginning of the Covid pandemic. Following the release of the 1921 census for England and Wales in January 2022 this was also consulted.

The mini-biographies were constructed for the 254 students between 1906 and 1939 whose regional descriptions are extant. This cohort constitutes 60% of the total number of students taking the Oxford School of Geography diploma or certificate courses and provides a representative sample for the whole. Difficulties were encountered when, for example, a female student attending the Certificate in Geography course in 1906 but not taking the examination is only identified by a single initial, has a relatively common surname, and attended a teacher training institution which was disbanded in 1920.

The tabulation in Appendix 3 consists of 20 columns from which pertinent information can be abstracted. These are headed: description number (allowing for correlation of this dataset with that in Appendix 2), surname, forename(s), college affiliation, examination for which the student was entered, year of submission, handlist title of description, notes concerning the student and the course, any previous degree, dates of birth, death and marriage if applicable, details from the 1911 census and the 1901 if pertinent, presence in the Teachers' Registration Council records, details from the 1921 census, details from the 1939 register of the civilian population, occupation, details of the estate at probate, father's occupation, details of father, details of mother, and finally extra notes.

In England and Wales, following the 1895 Royal Commission on Secondary Education and the Education Act of 1899, provision was made for the establishment of a register of teachers. This register was to be compiled for qualified teachers, principally, but not exclusively, within England and Wales. Although registration with the Teachers' Council was not compulsory many did register, and the archive of registration details between 1914 and 1948 has been made available online by the Society of Genealogists. However, the lack of compulsion means that not all who did teach are recorded so that the sub cohort of those available for consideration of their onward transmission of geographical knowledge is more limited than might have otherwise been the case. This may be particularly true for female

students who married, possibly after a short teaching career; for example, the daughter of Phyllis Wray-Bliss (diploma 1922) asserts that her mother did teach following the death of her father in 1943 but as of this date there is no record of her service in official sources (Delia Twamley pers. comm. 2019). As Baker asserted “the dead don't answer questionnaires”, nor are they available for interview (Baker, A.R.H. 1997). Indeed, although today registration with the Teaching Regulation Agency is compulsory for those working within the state-maintained sector, it is still voluntary for the independent sector and between 2000 and 2012 it was estimated that only about a third of those so employed were registered (details from https://en.wikipedia.org/wiki/General_Teaching_Council_for_England).

However, it has proved more difficult to acquire information for any who taught in Scotland and Ireland. In the Republic of Ireland no census was taken in 1921, but a census was conducted in 1926 which will be released for public inspection in January 2027. For a variety of reasons relating to the political changes in the island there was also no census taken in Northern Ireland in 1921 but, as in Eire, a census was taken in 1926 which will not be released until 2027.

The 1939 National Identity Register of 29 September 1939 (compiled for the purpose of issuing identity cards, ration books, call-up papers and identifying children eligible for evacuation from areas vulnerable to bombing) is available online for England and Wales but not Scotland, Northern Ireland,

the Isle of Man, nor the Channel Islands. In Scotland and Northern Ireland the information from this register is currently available subsequent to a Freedom of Information request being made for each individual. This register gives occupation as well as full date of birth for the civilian population. As this register was incorporated into the National Health Service Register in 1948 and continuously updated until 1991, entries for those people born less than 100 years ago and not yet recorded as dying have been redacted. Such redaction means the use of the 1939 Register is limited to students who are deceased or born before 1924. Whilst this is not an issue for the diploma students it does become increasingly problematic for students of the Final Honours School in Geography. A further issue with this source is that societal assumptions at the time meant that a male head of household was regarded as the sole breadwinner and that the role of the female spouse was relegated to “unpaid domestic duties”. For the wife of Edmund William Gilbert (1900–1973, diploma with distinction 1923) to have her occupation recorded as “unpaid domestic duties and cartographer” is, therefore, unusual. She was Barbara Maud Flux, née Dundas, 1902–1989, who completed the Certificate in Geography at Oxford in 1922. The 1939 Register is an extremely important genealogical resource as it helps to bridge a thirty-year gap in census data. The census taken in 1931 was destroyed by fire during World War II whilst no census was carried out in 1941 due to the ongoing conflict.

Table 3.1 List of on-line genealogical sources consulted

Website	Source within Website
FreeBMD (https://www.freebmd.org.uk/)	General Register Office for England and Wales, Index to Births, Deaths and Marriages, 1837–1994
FindMyPast (https://www.findmypast.co.uk/)	England, Wales & Scotland Census for 1881 (3 April); 1891 (5 April); 1901 (31 March)
	England & Wales Census for 1911 (2 April); 1921 (19 June) [this was only released on 1 January 2022 under the 100-year rule protecting the privacy of individuals]
	1939 Register of Civilian Population in England & Wales (29 September)
	Teachers' Registration Council Register, 1914–1948
	Government Probate Death Index for England & Wales, 1858–2019
	Outgoing Passenger Lists for UK, 1890–1960
Ancestry (https://www.ancestry.co.uk)	Incoming Passenger Lists for UK and Ireland, 1878–1960
Scotland's People (https://www.scotlandspeople.gov.uk/)	Statutory registers of births, marriages and deaths, 1855–1985
	Census for 1881; 1911
National Archives of Ireland (https://www.nationalarchives.ie/)	All Ireland Census for 1901; 1911
Irish Genealogy (https://www.irishgenealogy.ie/)	General Register Office for all Ireland, Index to Births, Deaths and Marriages, 1864–1919

This genealogical research, from publicly available material, has enabled the identification of those who pursued teaching careers in, principally secondary, schools and teacher training colleges. From this work, I am able to consider the onward transmission of the geographical knowledge promulgated by the Oxford School of Geography to a wider section of the population, both within the United Kingdom and also overseas. In Appendix 3, I provide some initial material, including details of parental occupation, which could inform a future consideration of the possible socio-economic standing of the family. However, as my concern in this thesis is with the employment of the photographic in the production and transmission of geographical knowledge, I have confined my use of the biographical material to a statistical analysis of the make-up of the Oxford School of Geography student body and the subsequent careers of those students.

3.10 Conclusion

My research is both empirical and interdisciplinary in that it looks at the intersection of the history of geography, in particular with regard to its pedagogy, with the history of popular visual cultures, in particular the use of the lantern within academia and the re-purposing of the picture postcard for use within a contemporary educational setting of the university. The tabulated datasets, therefore, can assist in elucidating both how knowledge can be situated within an academic environment and how it can inform the

transmission of knowledge beyond the university to a broader educational milieu.

This thesis and the embedded dataset catalogues seek to explore the many sites of production of the teaching slide collection and to articulate the means by which these multiple and diverse sites were unified within a single site of transmission, namely the Oxford School of Geography lecture theatre. I, also, seek to explore the many sources used by the students to create a site of production of geographical knowledge in their submitted field work descriptions. The following four chapters explore the contents of the catalogues more fully and commence with two chapters examining the teaching collection of glass lantern slides enumerated in Appendix 1 with digests of the data in Annexes 2 and 3.

Chapter 4

You need to know how to look: visual instruction in the Oxford School of Geography

“The teaching of geography and the use which could and should be made of visual instruction” (Mackinder 1911: 79)

Drawing on Mackinder’s epigraph to this chapter, which places an emphasis on the visual, I begin to answer the main research question of ‘did the photographic play a significant role in the production and transmission of geographical knowledge in the Oxford School of Geography before World War II?’ This chapter, also, begins to answer an empirical question which flows from this principal question, namely, ‘who produced the photographic imagery used in the department?’ It, simultaneously, begins to answer further empirical questions, namely: ‘what use was made of the photographic images by the academic staff?’ and, also, ‘how was this use seen to be integral to geographical training?’

By interrogating the lantern slide teaching collection, which by my cataloguing moves from being an unseen library collection to an archive available for research, I generate an understanding of the content, audiences and intentions of the photographic images present. This interrogation, by the process of ‘slow looking’ discussed in chapter 3, reveals the first site of the production of geographical knowledge by providing the context for the use of the selected imagery. It also, by implication, reveals the first site of transmission in that the amassing of the lantern slides and the construction of

the teaching slide collection was necessary in order to create the visual imagery used by the academics of the Oxford School of Geography in their lectures. The value of the visual was supplemented by the transmission of geographical knowledge in the more informal, yet regarded as essential, setting of the outdoor field excursion. In this setting, close observation of the landscape was integral to the training of the geographical ‘eye for country’ which was then augmented in the lecture theatre by photographic imagery of landscapes that could not be experienced in the field. Therefore, in this, and the following three chapters, I present the results of my research into the archives of the Oxford School of Geography. The raw data for these results are presented in Appendices 1–3. I also look at the implications of these results and draw a number of conclusions pertinent to each data set.

In this and the following chapter, I investigate the production of geographical knowledge in Oxford during the early twentieth century and its transmission to geography diploma students during academic lectures. In particular, I examine the use of photographic imagery in this process by scrutinizing the content and intention of the imagery present in the glass lantern slide teaching collection. Recent work on the production of geographical knowledge has often focused on current debates centred around decolonization (Griffiths and Baker 2020) and has looked to include formerly marginalized sectors of society, in particular women (Jöns 2017, Jöns *et al.* 2017, Maddrell 2009, Monk 2004). It has also looked to explore ‘hidden’

histories as well as those that might be designated as ‘small’ (Driver 2013, Lorimer 2003). By examining the visual practices of the Oxford School of Geography in the early twentieth century, I uncover an apparently ‘small’ history concerning the production of geographical knowledge but which had an impact beyond the University of Oxford due to the employment of the students not only in academia but, principally, in the wider educational sector. This impact will be further explored in chapter 7. This history is also concerned with broader issues relating to the place of women in academia and the role of a new imperialism in education at the end of the nineteenth century. These issues will also be addressed more specifically in later chapters. I also look to the inclusion of an under-represented sector of the academic milieu in these debates, that of the student population.

The value of photography to various branches of science was frequently noted by contemporary commentators (e.g. in geology Harrison, W.J. 1885 and Kendall, P. 1888, within technical education Meldola 1892, and in astronomy Anon. 1898) as was its value to the arts. This is exemplified by Du Bois-Reymond’s³² 1890 Berlin address where he commented that photography had:

“taught landscape-painters to depict rocks and vegetation with geological and botanical accuracy, and to represent glaciers, which hitherto had been but rarely and never successfully attempted” (Du Bois-Reymond 1891: 204).

³² Emil Heinrich du Bois-Reymond (1818–1896) German physiologist, also studied geology.

In this chapter, I begin to interrogate the glass lantern slide teaching collection of the Oxford School of Geography in order to assess its pedagogical value.

The production of geographical knowledge in the early twentieth century was enlivened by the increasing use of visual material which was aided by developments within both photography and printing during the nineteenth century. These technological developments enabled a much broader section of society to be exposed to a wide range of imagery and, therefore, become engaged with the visual (Lightman 2012, Schwartz, D. 1999: 161–167). This broader engagement with the visual was also seen in the increasing use of visual material within schools, as Hodgkin remarked in 1908 “for no age or condition of students ought we to shrink from using means placed at our disposal by the useful invention of lantern slides” (Hodgkin 1908: 8). In the same year, 1908, the Historical Association, founded in 1906 and open to “all persons engaged or interested in the teaching of history” and with an aim of cooperating with, amongst others, the Geographical Association (Historical Association Leaflet 4, 1907, p. 10), published its leaflet no. 12 entitled *Illustrations, portraits, and lantern slides chiefly for British and modern history*. I discussed such developments in pedagogical approaches which were not confined to the UK but were also to be found throughout the world in chapter 2.9. In response to the increasing influence of the visual upon society at large, the Oxford School of Geography sought to develop ‘an eye for the country’ within its diploma students. In the introduction I alluded to this

concept and its application within geography. In chapter 7 I reveal that the majority of the Oxford students were already, or went on to become, schoolteachers and were, thus, working in the broader society.

The editors of the *Photographic News* noted in 1890 that “the lantern display has come to be regarded as indispensable for lecture illustration ... as a ready means of illustrating a point in science” (Anon. 1890: 1). In the academic lecture, the photograph thus became a simulacrum for direct personal observation based on the premise that photography portrayed the reality of the view that it ‘captured’. Sir Henry Trueman Wood, Secretary to the Royal Society of Arts, stated in a lecture to the Royal Photographic Society in October 1894 that “the power of the camera [is] to observe more accurately, more independently, more minutely, more rapidly, more permanently, than the human eye”. The camera also provided “the advantages of the retina which never forgets and, it might be added, which never tires” (Wood 1894: 577). In order to create an ‘eye for country’, the Oxford geography academics introduced concepts during their lectures using both the spoken word and relevant lantern slides. Wood also appreciated the educational value of photography when he stated:

“The uses of photography in ethnology, geology, geography, natural history, archaeology, are too obvious to need mention. They and many other applications may be summed up in the remark that whenever the observer of natural phenomena requires to make an accurate record of his observations, photography supplies the means. It also supplies the means of showing to a room full of spectators what could otherwise be seen by but a single observer at one time.” (Wood 1894: 578)

A more florid encomium of the objective value of photography to geography was given by Peter Henry Emerson in his book on ‘naturalistic’ photography:

“The geographer, too, is another lover well favoured by the dainty goddess [*i.e. photography and the camera*], he always takes her on his travels now-a-days, and brings us back her inimitable drawings [*i.e. photographs*] of skulls, savages, weapons, waterfalls, geological strata, fossils, animals, birds, trees, landscapes, and men, *and we believe him when we know the light-bearer was with him*, and soon in all his geographies, in all his botanies, in all his zoologies, in all his geologies, his entomologies, and all the rest of his valuable ‘ologies’, we shall find the crisp and inimitable drawings of his dainty companion.” (Emerson 1890: 3, present author’s italics)

Within early popular and visual cultural studies the role of photography, together with the use of the lantern slide, has been investigated in the arena of the popularization and dissemination of science. I discussed this aspect of lantern slides in chapter 2.7 and explore the use of the lantern in more detail later in this chapter when I consider the role of commercially produced slides. More generally, the use of the medium within education has been explored in projects such as *A million pictures* (Dellmann and Kessler 2020) as well as in specific contexts, e.g. Hollman (2016) in Argentinian schools and Reiser (2010) discussing school biology in America. By concentrating my attention on the presence of lantern slides within the Oxford School of Geography, I engage with a specific context that had an impact beyond its location.

In the period under consideration, 1900–1939, the technical and, what was regarded as impartial, scientific basis of photography meant that the reality of the images obtained was only infrequently questioned within the academic setting. Goldie, president of the Royal Geographical Society,

discussed this in his 1906 address to the Royal Scottish Geographical Society when he noted that:

“Amongst the minor methods of arousing interest and imparting information in geographical matters, perhaps the most effective is the comparatively modern use of photographic lantern slides. For either purpose the value of accurate and artistic visual representation accompanying aural explanations can hardly be over-estimated, whether the spectators and audience are trained geographers or elementary school children.”
(Goldie 1907: 13)

The increasing use of visual material, such as the lantern slide, can be considered to encompass a multimodal form of discourse (Kress 2010, Kress and van Leeuwen 2006, Lemke 1998). Such use necessitated an understanding of the imagery presented to the students and, therefore, the acquisition of a visual literacy. In this chapter, I explore this multimodal form of discourse, which encompassed various methods used to develop an ‘eye for the country’, by examining the collection of glass lantern slides used by the lecturers between 1902, when the first slides were acquired and 1939, when the last diploma student was examined (University of Oxford, School of Geography Archives, Accessions Book of the Library 16th Oct 1899–20 January 1903 (GE 7/1)). These methods involved the academics considering “the person seeing as an active rather than as a passive recipient of images” (Atkins 2021: 86) and this would hold whether the ‘image’ was the landscape being viewed in person on a field trip or a slide projected during a lecture. There was, thus, a translation of ‘classroom’ knowledge into direct and directed personal observation in the field.

The educational value of such outdoor work was strongly recommended in the professional literature of the period (e.g. Reynolds 1901a, Lomas 1904). Educational field trips were, of necessity, usually confined to the local area and the value of ‘typical geographical views’ of more distant regions and in particular those overseas was recognised in promoting a knowledge of the entire globe, including the areas under British imperial rule. For Oxford geography students, it will be seen in the discussion of the influence of colonialism in the next chapter that less than half of the photographic slides relating to Asia and Africa were concerned with British colonies (Table 5.1).

4.1 Visual Literacy

The term ‘visual literacy’ entered into general circulation at the end of the 1960s but had been coined earlier (Peña and Dobson 2021). It was initially applied within the context of the educational value of studying museum objects, and in particular the visual arts, but has subsequently evolved to become a component of pedagogical practice (Avgerinou and Ericson 1997). In his discussion of the pedagogical effectiveness of the conjunction of visual and textual material, Schnotz draws attention to the increased comprehension afforded by this conjunction within the realm of domain specific knowledge (Schnotz 2002, Rourke and O’Connor 2008). This was not a new observation but reinforces previous understandings of such links as exemplified by Gulliver: “observational knowledge remains in the mind much more tenaciously than facts learned from a book” (Gulliver 1906: 86).

The concept of ‘visual literacy’ is, thus, one in which it becomes possible to “decode, interpret, and understand the visual world” (Beier 2013: 37) although it has been noted that “images do not tell anything by themselves ... they need an institutional framework to become meaningful” (Kohout 2018: 361 quoting Ullrich 2006). Visual literacy can, therefore, be regarded as corresponding to what Emerson termed “educated sight” (Emerson 1890: 233) and to the ‘eye for the country’ which the academics in the Oxford School of Geography sought to develop in their students.

The academic use of lantern slides required a competency in visual literacy and objective observation from the students. By focusing on what and how visual images were produced, as well as how and to whom this material was circulated, I argue that there is a relationship between vernacular and professional image making and explore this further in the next chapter. The institutional setting of the geographical lecture theatre and its extension into the supervised field trip provided an arena where the meaning of an image and its extant features in a landscape could be explored in the context of disseminating geographical knowledge. As Peña and Dobson, quoting Davis, highlighted the “trained powers of observation which constitute visual literacy are essential” as students can then “use those observations independently ... and their powers of observation constructively” (Peña and Dobson 2021: 4 quoting Davis 1939). The ability of the students within the Oxford School of Geography to demonstrate their ‘powers of observation’ was enabled by the

inclusion of a compulsory ‘description’ within the final examination for the Diploma in Geography and later the Final Honours School and will be explored further in chapter 6.

Academic practitioners of geography, in its infancy as a discipline in the UK at the end of the nineteenth century, embraced the developments in photographic technology. As Hayes has shown, the first director of the Oxford School of Geography, Halford Mackinder, was using the lantern not only in his address on *The scope and methods of geography* to the RGS in 1887 but also during his lectures for the Oxford University Extension scheme (Hayes 2016: ch. 5). He used ‘typical geographical views’ as well as maps and diagrams, and in 1888 he reported that he “had had constructed about 150 lantern slides” for that purpose (Mackinder 1888a: 533). Always alert to opportunities to proselytize for the discipline, Mackinder sought a wider audience for his slides — wider even than extension lectures which were predicated on broadening access to university-level teaching — and by 1899 the commercial company of Newton & Co. was offering a set of 120 slides, divided into 13 sections, on *Physical Geography* which was described as “An Original Series of Slides, selected and arranged for the Oxford University Extension by H.J. Mackinder, Esq., M.A., F.R.G.S., Reader in Geography in the University of Oxford”, together with “Explanatory Notes for the use of Lecturers” (Lucerna, item 4010527).

Such slides were, doubtless, also being used at Oxford within the School of Geography from its inception in October 1899 (Scargill 1999: 5) as in December 1899 a ‘lantern and fittings’ were obtained from H.W. Simpson, followed by a lantern screen in January 1901 (University of Oxford, School of Geography Archives, Cash Analysis Book 1899–1910 (GE 3/1)) before the School began to develop its own collective teaching collection.³³

In his contribution to the 2003 *Antipode* roundtable on geographical knowledge and visual practices, Matless draws attention to a 1902 article by Herbertson in which the inclusion of a ‘lantern’ was regarded as an essential piece of equipment for a university geography department (Herbertson 1902a: 131). Further, Herbertson asserts that “a collection of slides of maps, diagrams, and views, is indispensable” especially if the lantern is ‘double-headed’ which could “throw two pictures on different screens at the same time, and thus permit a comparison between two maps or between a map and a view” (Herbertson 1902a: 131). It is unknown whether the Oxford School of Geography ever possessed such a piece of equipment although it certainly possessed a lantern slide projector. Herbertson, in addition, suggests that the university department of geography should include “a good camera” amongst its instruments

³³ Although not stated it is possible that Simpson is Henry (or Harry) W. Simpson, the lanternist at the Royal Geographical Society.

Seven slides in the Oxford teaching collection bear the manuscript initials 'AJH' on their surrounds (see Fig. 4.1) which would imply that they formed part of a personal collection belonging to Andrew John Herbertson, Mackinder's deputy in the newly formed Oxford School of Geography. These, though, are the exception, and there is no indication that any other slides within the teaching collection were sourced from academics' personal collections. The larger Geography slide archive does, however, contain personal collections of Oxford academics dating from after World War II and which are beyond the remit of this thesis but would reward future research.

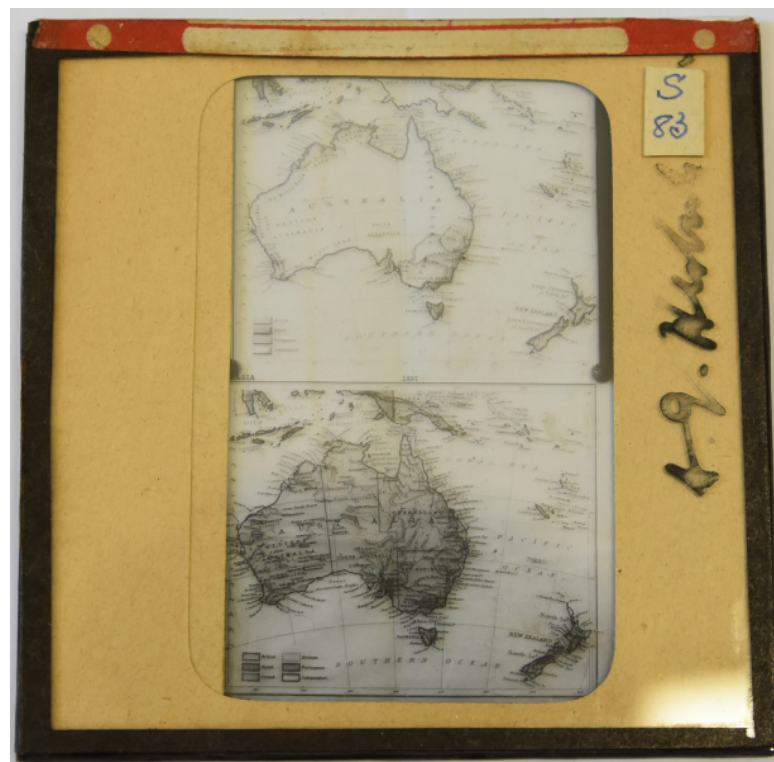


Fig. 4.1 Teaching Collection catalogue: S.83; titled 'Australasia, 1837 & 1897' (© D. Palfreman, 2022)

4.2 ‘Thinking Geographically’

The lecturers in the Oxford School of Geography were, therefore, using not just the word, whether written or spoken, but also imagery to transmit their geographical knowledge and to create a visualization of the subject in order to enable the students to ‘think geographically’. Mackinder expressed this in a letter to the president of the RGS when he wrote “the geographer thinks in spaces and shapes” (Goldie 1907: 12). Jackson understood the concept to include the ability to “see the world and make connections between scales, from the global to the local” (Jackson 2006: 203). Scarfe has asserted that the primary function of the geographer was “to discover if relationships exist between the distribution of man’s life and work, and the distribution of nonhuman conditions” and that “a discipline is a set of ideas, concepts and explanations rather than a set of facts; it is a way of thinking about facts, not a way of accumulating facts” (Scarfe 1964: 300). To think in geographical terms was, therefore, to be able to use the tools of representation, including visual imagery such as photographs, to develop a mental concept of spatial relationships. The concept of this ability to ‘think geographically’ has been explored by a number of observers (Horrabin 1945, Powell, A.G. 1947, Hubbard 2002) and Morgan gives a review of the developments which have occurred in the definition of this concept (Morgan 2013). Perhaps the term has been best summarized by Metoyer and Bednarz when they say:

“Spatial thinking is a combination of cognitive skills comprised of knowing concepts of space, using tools of representation, and applying processes of reasoning. Geographic

thinking extrapolates beyond spatial thinking to encompass the recognition and elaboration of the relations among spatial concepts, the advanced associations derived from these concepts, and the formal linking of the associations into theories and generalizations.” (Metoyer and Bednarz 2017: 20)

In 1910, the members of a conference on the teaching of geography, which included Herbertson from Oxford and Chisholm from Edinburgh as well as London University academics and teachers from London schools and training centres, defined the ‘power of thinking geographically’ as “the power of connecting and setting in their proper relations the facts with which geography deals” (London County Council 1910: 80). As Mackinder stated in 1911 “the trained geographer, when he considers a fact, sees it on a background of kindred facts, in other words, he sees it in perspective of space” (Mackinder 1911: 80). In fact, Mackinder repeatedly emphasised the visual aspect of the subject as in his description of an ‘ideal geographer’ as having a:

“Trained imagination, more especially with the power of visualizing forms and movements in space of three dimensions ... [and] can visualize the play and the conflict of the fluids over and around the solid forms; analyze an environment, the local resultant of world-wide systems; picture the movements of communities driven by their past history ... even visualize the movement of ideas and of words as they are carried along the lines of least resistance.” (Mackinder 1895a: 376)

By utilizing the recent developments in photography, the Oxford academics were, thus, engendering a disciplinary visual literacy via the lecture theatre, which was used to create the required ‘informed observers’ for the new regional geography as practised and promulgated by the Oxford School of Geography in the early twentieth century.

4.3 The Oxford Teaching Collection



Fig. 4.2 The Teaching Slide Collection of the Oxford School of Geography
(© S.C. Squibb, 2019)

The teaching lantern slide collection of the Oxford School of Geography now contains 3,338 images according to a typed hand-list, last used in 1972 when a stock-take of the slides was made by the departmental library staff. Its composition in terms of date range and type of image depicted is given in Table 4.1 (a full breakdown by section within the collection is available in Annexe 3 and a complete description of the individual slides has been compiled in Appendix 1).

Table 4.1 General Composition of the Oxford Glass Teaching Slide Collection

	Number	Missing	Post-1940	Pre-1940	Maps, diagrams, etc (pre-1940)	Photographs (pre-1940)
Total Collection	3,338	174	707	2,457	852	1,605
%		5	21	74	35	65

The make-up of the post-1940 section of the collection reflects the findings of Hayes with regard to the composition of slides relating to the technical meetings of the RGS (Hayes 2016: 195) in that 508 (72%) comprise maps, diagrams or tables but only 28% (199 slides) are taken from photographic images, mainly aerial photography.

The evidence from a close examination of the glass lantern slide teaching collection of the School of Geography shows an eclectic range of types of imagery, maps and diagrams as well as photographs and reproductions of field sketches, from a wide range of sources which were assembled to present cogent arguments in the lecture theatre. In this, they were not only following but also developing the pedagogical principle of the importance of both the word and the image in the learning and memory process. (Davies 1904, Carter 1907, Dickinson, B.B. 1908).

The wide range of sources used before 1940 is indicated in Table 4.2, and in this chapter I investigate in more depth some of the commercial sources, which reveals a range of audiences and intentions. I explore the categories of the ‘general academic’, by which I mean images available on the

open market but derived from academics, and ‘personal’ images created by Oxford academics themselves in the next chapter. Those sources which have been labelled as ‘published items’ are those where the image has been taken from, principally, books and journal articles available within the School of Geography Library and created either by a commercial operator in Oxford or within the School itself.

Table 4.2 Composition of Pre-1940 Teaching Slide Collection by Source

		Commercial	Published Items	General Academic	Personal	Unknown Source
Total	2,457	489	705	696	249	318
%		21	30	28	10	11

In order to create an ‘eye for country’, the academics introduced concepts during their lectures using both the spoken word and relevant lantern slides. This was then reinforced, if applicable, by encouraging personal observation. Direct personal observation was promoted during field trips, which in the Oxford School of Geography were timetabled on a weekly basis (*Oxford University Gazette* 1899–).³⁴

³⁴ The first specific mention is in the lecture list for the Easter (i.e. Trinity) Term 1900; thereafter field classes are recorded on a termly basis from Michaelmas Term 1904 until Trinity Term 1932. As the classes were regarded as internal to the School they are not recorded in the official lecture lists after the inception of the Honours School in 1932 as they were not open to all members of the University, unlike lectures. Trinity is now the University of Oxford's nomenclature for the Summer Term.

4.4 Field Sketching

The weekly field trips organized by the Oxford School of Geography for its students enabled the lecturers to introduce the diploma students to the various skills required to record the landscape they were observing, including map production and field sketching as well as photography. As Mackinder noted in his description of the ‘ideal geographer’ they should have “an artistic appreciation of land forms, obtained, most probably, by pencil study in the field” (Mackinder 1895a: 376).

The *Geographical Teacher* noted in its review of the state of geography in British universities in 1903 that the Oxford syllabus for ‘Topographical Surveying and Mapping’ included ‘Sketching without instruments’ (Anon. 1903c: 34). There are few specific references to field sketching within the published termly lecture lists (*Oxford University Gazette* 1899–1940), although N.F. Mackenzie did offer a course in ‘Field Sketching, Geographical and Cadastral Surveying’ in 1906.^{35,36} The subject constituted part of the Surveying option which could be offered for Part II of the Diploma in Geography where it was listed in the regulations for that examination and combined as ‘Field Sketching and Reconnaissance’ (*Oxford University Gazette* 1910, v. 40: 782). Field sketching, more generally, was regarded as an

³⁵ Captain Nicol Finlayson Mackenzie (1857–1943), Senior Instructor in Surveying at the Royal Indian Engineering College at Cooper’s Hill, Surrey until 1905, appointed Instructor in Surveying at Oxford University upon its closure, retired 1927.

³⁶ Cadastral Survey: (*loosely*) a survey on a scale sufficiently large to show accurately the extent and measurement of every field and other plot of land. (Oxford English Dictionary)

essential reconnaissance skill within military circles until it was seriously challenged by the advent of reconnaissance photography in World War I. According to Colonel MacLeod it was a skill in which “every officer is supposed to be proficient” (MacLeod 1932: 151).³⁷ The War Office’s *Manual on field sketching and reconnaissance* was added to the library of the Oxford School of Geography in 1904. The implied militaristic slant of this option will be returned to later in chapter 5.3.

Field sketching was, also, specifically included in at least two of the Summer Vacation Courses, organized by the Oxford School of Geography for schoolteachers, when Lettice MacMunn, a qualified art teacher, gave demonstrations in ‘Landscape sketching for geographical purposes’ (*Oxford University Gazette* 1911, v. 41: 538 and 1913, v. 43: 505).

The lack of specific references should not, however, be taken to mean that the value attached to the ability to record what was observed in the field by means of a field sketch was overlooked in the School. At the Conference on Geographical Drawing (London, 1910) organized by the Geographical Association, the Demonstrator at the Oxford School of Geography, N.E. MacMunn, delivered a paper on ‘Field Study’ in which she observed that for ‘good geographical work’ there were two essentials viz: “a well-trained imagination and a power of accurate observation” and further that as:

³⁷ Malcolm Neynoe MacLeod (1882–1969) Director General, Ordnance Survey, 1935–1943; promoted Major-General 1938; advocate of aerial photographic surveying, see MacLeod 1919.

“Such careful observation and drawing of different parts of the country is of real geographical value, the training thus given to the powers of observation is very much needed. I am often surprised to find how inaccurately many people do observe: they do not know what they do see.” (MacMunn 1910: 253, 254).³⁸

At the same 1910 conference, Mackinder summarized the aim of such visual techniques thus:

“What is wanted is not pedantry — the representation of every detail, either in map or in landscape drawing — but the representation of an idea, the power of selecting that particular idea to which attention is to be drawn and giving sufficient background to indicate its relationship to other things.” (Anon. 1910a: 252).

Although there are very few of the glass lantern slides which can be directly related to the art of field sketching there are seven slides within the section on Alpine landforms which are field sketches executed by William Gershom Collingwood in 1882 (for an example see Fig. 6.4). Collingwood was a member of Ruskin’s undergraduate coterie whilst studying for his degree in classics and after his marriage in 1883 moved to the Lake District and became secretary to Ruskin. He was also an Oxford University Extension Lecturer on the subject of mountain drawing (Collingwood 1886). Collingwood had travelled to Switzerland with Ruskin in 1882–1883 and had produced a series of field sketches as well as a text on the physical geography of the Savoy Alps (Collingwood 1884) to which Ruskin not only contributed an introduction but also described it as the ‘First supplement’ to his work *Deucalion*.³⁹ Ruskin in a lecture in 1874, which he included in his *Deucalion*, declared to his students

³⁸ Nora Eileen MacMunn (1875–1967), Oxford Diploma in Geography 1904, appointed Demonstrator in Geography 1906, career progression to Lecturer 1924, retired 1935 (Baigent *et al.* 2020: 59–67); sister of Lettice MacMunn (1872–1951).

³⁹ Deucalion, in Greek legends closely associated with flood myths, cf. the biblical Noah.

that “your power of seeing mountains ... depends on the cultivation of the instrument of sight itself” (Ruskin 1879: 11). In this he was anticipating the mantra of geographers that it is necessary to develop an ‘eye for country’ by taking time to observe in the field. In his reassessment of Ruskin, Cosgrove discusses his love and deep appreciation of landscape and comes to the conclusion that “Ruskin retained the early scientific eye for accurate observation” (Cosgrove 1979: 45). Ruskin’s interest in geology had been fostered during his undergraduate days at Christ Church, Oxford by William Buckland, the Reader in Geology at the University and it influenced not just his own approach to art but also others through his writings on the subject (Wagner 1988).

Gamble, in discussing the role the Alps played in the development of both Ruskin and Viollet-le-Duc,⁴⁰ asserts that they both regarded “drawing as an essential subject in the school curriculum, a discipline which enabled students to learn how to observe objects with precision and exactitude and to discover the deep structure of things: a discipline in which science and art are in harmony”, and that “through drawing one learns to see and to see is to understand” (Gamble 1999: 191). Viollet-le-Duc, himself, was influenced by Horace Bénédict de Saussure (1740–1799) and his 1779 work *Voyages dans les Alpes* which was also owned and admired by Ruskin. Viollet-le-Duc

⁴⁰ Eugène Emmanuel Viollet-le-Duc (1814–1879), French architect and artist, founder member of French Alpine Club, 1874.

summed up his admiration for Saussure as “*sut voir et bien voir; ce qui n’est pas si aisé qu’on le croit*” [knew how to see and to see well; which is not as easy as one believes (author’s translation)] (Viollet-le-Duc 1876: 242). A sentiment that Ruskin echoed.

In analysing Ruskin’s approach to landscape, Cosgrove suggests that by accurately observing and describing the individual constituents of a landscape the separate elements could then be recombined to provide, by association, a synthesis of the form of the landscape in a particular situation (Cosgrove 1979: 57) and that such an approach is not incompatible with later geographers such as Sauer and Cornish (Cosgrove 1979: 59–61). Ruskin’s ideas on the value of the visual as a way of investigating and seeking for the truth were widely read, not least in Oxford where he was Slade Professor of Fine Art, 1869–1878 and again 1883–1884. The field sketch provided a method for recording the separate elements which could then be combined in a watercolour or a photograph. This use of multiple modes of visualization will be discussed further in the chapter on the illustrative material in the students’ regional descriptions.

4.5 Analysis of the Collection

I now turn to investigating the many sources that contributed to the overall content of the glass lantern slide teaching collection before World War II. As noted in Table 4.2, there are four broad categories, viz: commercial, commissioned from published sources, general academic, and personal. These

can in turn be subdivided to allow a more granular consideration of the role each played in the production of geographical knowledge in the Oxford School of Geography. This analysis should not be regarded as being exclusive to Oxford as, in varying degrees, the use made by this wide variety of sources was, doubtless, common across the emergent university geography departments. My research highlights the lack of attention that this source of geographical knowledge has received both at the present time and contemporaneously, e.g. in the annual report on geography in British universities for 1908 of the 17 universities listed only one, Aberystwyth, includes a specific reference to the use of lantern slides (Anon. 1908: 246). The use of a variety of sources from which to draw lantern slides was also present in other university departments as evidenced by a small sample from the collection of the Geology Department of Imperial College of the University of London. This sample has been located within the personal collection of George Scotland Sweeting. G.S. Sweeting (1889–1977) was a geology lecturer at Imperial College and the father of Marjorie Mary Sweeting (1920–1994). She was an academic within the Oxford School of Geography from 1951 to 1987 and it is for this reason that his personal slide collection, along with part of that of his daughter is now located within the larger School of Geography slide archive. The Imperial College Geology Department slides include images from the British Association for the Advancement of Science Geological Photographs Committee (hereafter referred to as BAAS Geology),

the official images taken by members of the Geological Survey of Scotland and images taken by employees of the George Washington Wilson Co. during a photographic trip to South Africa in the 1890s. There are also some images which appear to have been taken either on departmental field trips or, possibly, during excursions organized by the Geologists' Association.

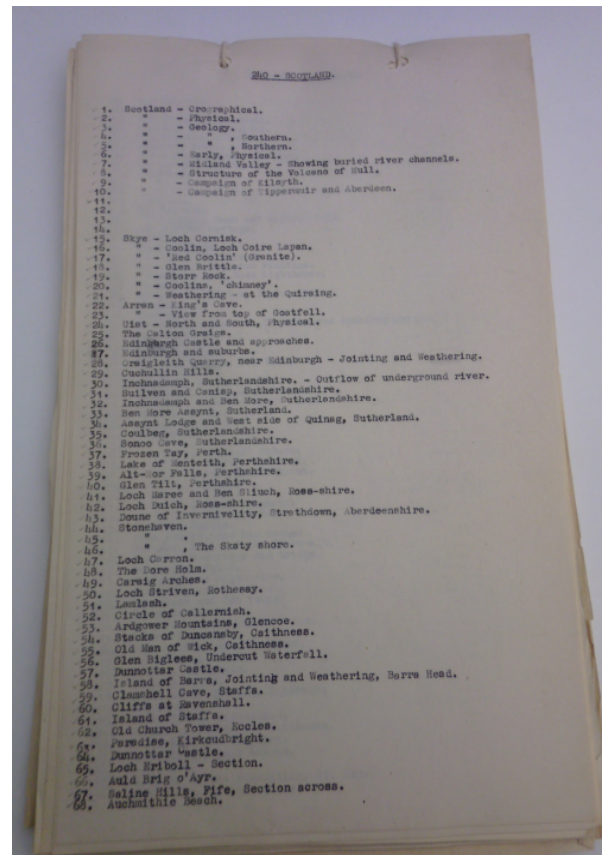


Fig. 4.3 Typical drawers of teaching collection slides

Fig. 4.4 Section of hand-list corresponding to drawer shown in Fig. 4.3
(© S.C. Squibb, 2019, 2022)

4.6 Commercial Sources

Before the School of Geography was able to install its own dark room in 1907 the academics drew on a variety of commercial sources of lantern slides. Table 4.3 shows the spread of these sources which will be considered in turn.

Table 4.3 Commercial Sources in Pre-1940 Teaching Slide Collection

	Pre-1940	Total Commercial	Commercial Lectures	Commercial Slides	Photographic Studios
Total Collection	2,457	489	114	213	162
%		21	24	43	33

4.7 Lantern Slide Lectures

The academical lecture theatre was only one of many locations where use was made of the magic lantern to illustrate lectures and popular talks. Reference has already been made to the University Extension Movement which was used as a platform by both Mackinder and Collingwood (Gilbert 1951a: 28, Miyahara 2007: 68). Within the broader society there was a variety of both people lecturing and venues at which illustrated lectures were delivered. The lantern slide lecture was not only used for entertainment and general education but also employed as a means of promoting religious knowledge and for increasing awareness of social issues throughout the world. Jaboks (2015) and Vogl-Bienek (2006, 2014) have investigated the use of the lantern in raising issues of poverty whilst Eifler (2019) and Lydon (2020, in particular ch. 6) have looked at its role in missionary propaganda. For Oxford geography academics to select slides from sets originally intended for general public lectures, reveals changes in both audience and intention. Such changes contribute to the biographies of such slides, which I discuss in more detail later in this chapter.

The professional freelance lecturer at the turn of the twentieth century has been investigated by several people, e.g. Kember (2019a) and Borton (2015). These lecturers were encouraged to improve their performance with articles in the specialist press (Croft 1903, Perkins 1905, Wright 1905). One such lecturer used this medium to advocate a degree of professionalism by urging lecturers to produce their own slides from their own photography for “if the best results are to be obtained, the purpose for which it is intended should be kept in mind in the selection of the subject and in the treatment it is to receive” and such slides would “enable their possessor to show the results of his labours to a large number of spectators, either in the privacy of a friendly gathering, or to a large public audience” (Golding 1904: 33).⁴¹ Golding’s words also resonate with the development of a disciplinary vernacular mode of photography which I discuss in chapter 5.10.

The physical mobility of images, demonstrated by the following discussion of Fig. 4.5, in addition to mobility across genres of display is a theme which I explore in this thesis as it occurs throughout the teaching collection of the Oxford School of Geography. Fig. 4.5 shows a typical advertisement that was distributed for a lecture given in 1909 in the Sheffield

⁴¹ William Henry Golding (1842–1918) changed career from ‘ship broker’ to ‘public lecturer’ during the 1870s, thereafter he styles himself as ‘Lecturer & Professor of Physical Science & Literature’ (1891 census), ‘Lecturer on Science & Literature - own account’ (1901 census), ‘Lecturer (Physical Science, etc.) working for the County Council’ (1911 census). In articles for the *Optical Magic Lantern Journal* from 1897 he variously styles himself either W.H. or Professor Golding. (lucerna.exeter.ac.uk, item 6003150, accessed 17 May 2022)

suburb of Walkley. In this instance the lecturer was not a touring freelance lecturer but a colonial museum curator, John Hewitt.⁴² The ‘100 unique slides’ were those he had created himself and which were put up for auction in South Africa in 2019.⁴³ The images continued to be mobile in that a presentation of them was then scheduled to be delivered during the Kuching Rainforest World Music Festival Fringe in July 2020. This presentation was advertised as a ‘photographic ode to the Land of the Hornbill’ being a ‘glimpse of early 20th century colonial Sarawak’, was titled as ‘Faded memories through the lens of John Hewitt’ and included a ‘Retrospective replay of Dr. John Hewitt’s illustrated lecture: “Native life & scenery in Sarawak (Borneo)”’.⁴⁴

⁴² John Hewitt (1880–1961), born in Dronfield, just south of Sheffield; Curator of the Sarawak Museum in Kuching, 1905–1908; assistant curator, Transvaal Museum, Pretoria, 1909; Director, Albany Museum, Grahamstown, S.A. 1910–1958.

⁴³ <https://www.lotsearch.net/lot/dr-john-hewitt-br-100-magic-lantern-slides-of-sarawak-47349141>, accessed 29 May 2022.

⁴⁴ <http://web.archive.org/web/20201022054645/https://rwmffringe.com/project/faded-memories-through-the-lens-of-john-hewitt/>, accessed 29 May 2022.

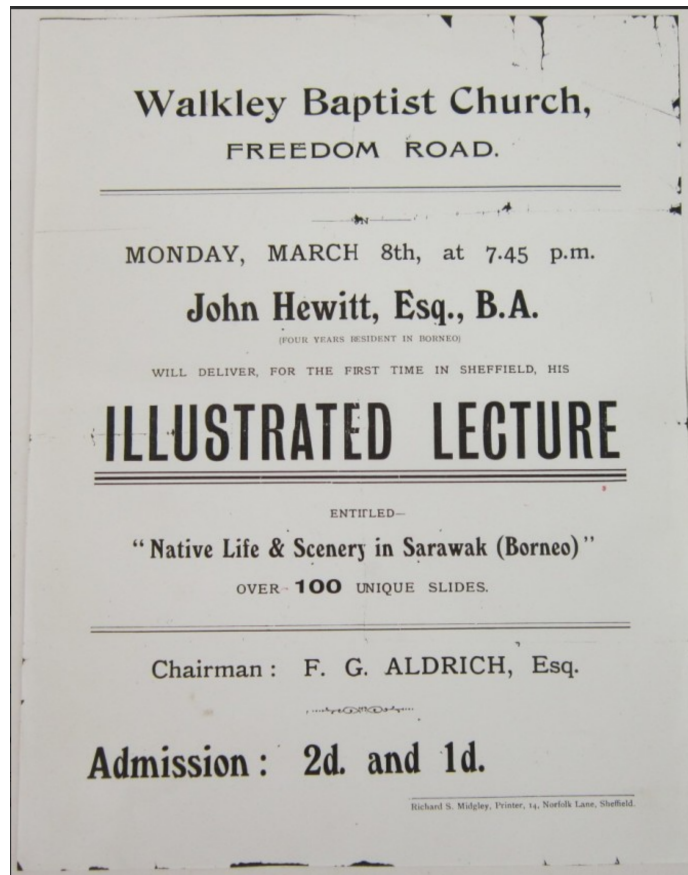


Fig. 4.5 Advertising handbill - Source: <https://antiquarianauctions.com/lots/100-magic-lantern-slides-of-sarawak-1905-1908>, accessed 17 May 2022.

It is the genre which became known as the 'travelogue' as discussed by Barber (1993), Dixon (2013: 4–10) and Peterson (2013: 23–35) that has furnished the majority of images within the Oxford Geography teaching collection which have been assigned to the category of commercial lectures. For example, 12 of the 13 images obtained from the company York & Son of London are of this category, the majority relating to European countries with the public lectures being compiled during the late 1880s and early 1890s.

Table 4.4 refers only to slides sourced from popular public lectures and not those commercially available lecture slide sets which can be regarded as having less of an appeal as an entertainment but as being more directed

towards an educational setting, an example of such a lecture is referred to below in the discussion of Fig. 4.9. The separation of the slides from York & Son of London into 2 numbers is related to the fact that 17 slides were sourced from one specific slide set, namely *The voyage of the Challenger* (York & Son, 42 slides, 1877–1888) (Lucerna item 5004511). The HMS *Challenger* circumnavigation, 1872–1876 (*Challenger* expedition), is regarded as the first major oceanographic expedition and generated 46 volumes of scientific reports published 1880–1895.

Table 4.4 Companies producing Public Lecture Slide Sets present in the Oxford Teaching Collection together with number of slides from such sets

Flatters	Newton & Co.	Projektion für Alle	Riley Brothers	Sciopticon	G.W. Wilson	E.G. Wood	Wrench & Son	York & Son
1	10	1	4	2	12	1	2	13 + 17

The use by the academics in the Oxford School of Geography of individual slides from sets — which together with accompanying texts were designed to provide popular lectures — demonstrates the mobility of an image across different genres of display. This selective acquisition was not confined to the School of Geography as examples can also be found within the History of Art Department at the University of Oxford:

- 1) Slide set: *A day in Oxford* (lecture: G.W. Wilson, 52 slides, in/before 1889) No. 30 republished by Newton & Co. as *Oxford and its colleges* located in Art

History Cabinet 2, drawer 6 (HEIR ID: 43968 - Clarendon Building, Sheldonian Theatre and Old Ashmolean).

2) & 3) Slide set: *Picturesque Holland* (lecture: York & Son, 50 slides, in/before 1887) nos. 13 and 49 located in Art History Cabinet 4, drawer 5 (HEIR ID: 43183 and 43187 - Delft Town Hall and Utrecht Cathedral Tower).

Dellmann has investigated one specific type of knowledge, that of a national sentiment, that could be produced by the images contained within sets such as *Picturesque Holland* (Dellmann 2012, 2014, 2016b and 2018) whilst the use of certain individual items from this set within an architectural setting in the History of Art Department implies that a different knowledge was being promulgated from the same images. The examples quoted above are, thus, demonstrations not only of the mobility of the images but also of their biographies as discussed by Kopytoff (1986) and Dellmann (2016a).

The teaching collection of the Oxford School of Geography also has a single image from the slide set *Picturesque Holland* viz: no. 16 ‘Scheveningen from the lighthouse’ (Teaching Collection catalogue number 300.36, HEIR ID 50482). This image is one of only four in the teaching collection for the Netherlands and all portray waterways and / or shipping, the others being taken from the extended set titled *Cities and Canals of Holland* produced by Newton & Co. before 1913. The original, smaller, set was being offered by G.W. Wilson in 1892 and by 1895 was also being offered for sale with its descriptive lecture by the McIntosh Battery and Optical Company of Chicago.

Research by Crangle has determined that it was distributed in Germany by a commercial firm based in Düsseldorf and that it is highly probable that the images were also issued as stereoscopic photo cards (notes attached to Lucerna item 3000205). Although there is currently no evidence that Oxford geography students were being instructed in stereoscopic interpretation in this early period such instruction was given after 1945 until at least the early 1980s. This single set of lantern slides is, therefore, an example not only of locational mobility but also mobility across genres of production. It also demonstrates a multiplicity of audiences being exposed to the imagery. Dellmann has discussed locational mobility in relation to slides with the subject matter of the Netherlands where her research necessitated examining collections across several countries (Dellmann 2016a). She has also investigated mobility across genres of production, in particular the movement of an image from both stereo photographs and cabinet cards to glass lantern slide (Dellmann 2012).

The lack of extant lecture transcripts hampers the attribution of these Dutch images to a particular lecture, but the annual presence in the published lecture lists from Hilary 1902 to Hilary 1910 of a course of 8 lectures given by Herbertson on either ‘Regional Geography of Continental Europe’, or ‘Regional Geography of Western and Central Europe’ and, more specifically, a single course on ‘Inland Waterways’ in Hilary 1910 suggests that these images

of water transport could have been included in those lectures (*Oxford University Gazette* 1899–1915).

Figs. 4.6 and 4.7 are examples of the texts that were published to accompany popular public lectures. The use of such ‘readings’ was not always favoured by contributors to the specialist press of the time as evidenced by the following strictures which, the writer asserted, were the cause of a decrease in the popularity of lantern shows:

“...the introduction of the system of letting out sets of slides on hire with an accompanying reading. The reading was often poor, of the guide book order, destitute of all literary grace, and was read at the exhibition of slides, a few hours after their arrival, by someone who possibly knew nothing of the subject, and had not had time even to read it through beforehand.” (Perkins 1905: 156)

10—On the Maas.

Holland is so compact that tourists, if they wish it, can visit all the towns by making daily excursions, from either Rotterdam or Amsterdam, thus avoiding the nightly change of hotels. Returning then, either by steamer or train, to Rotterdam, we take a much larger steamer up the river Maas, to visit the most interesting town of Dordrecht, called Dort by the Dutch. The scenery of the 1½ hours voyage comprises—windmills, small villages, long dykes, poplars, and much wooded and marshy landscape. Craft of all kinds ply up and down the broad river, and on market day, the steamers are loaded up with vegetables, live stock, and market folk.

Fig. 4.6 Text from *Cities and canals of Holland* (lecture: G.W. Wilson, 50 slides, 1892) by George E. Thompson, relating to Teaching Collection catalogue number 300.27, HEIR ID 50476. {Original in the Readings Library of the Magic Lantern Society }

16. Scheveningen, from the Lighthouse.—The coast for many miles around here is composed entirely of the finest sand. These sandhills or dunes have been thrown up by the action of the wind and waves, and vary from 30 to 150 feet in height, and about here they extend a mile or two inland. In very dry windy weather so much sand gets blown about that it is very unpleasant to be out of doors. The fine sand gets into everything. Many attempts have been made to cover those sandhills with grass, but with very little success. The side next the sea is well paved with klinkers, or bricks, and makes a splendid promenade; and the sea is not likely to again get over it as it did in 1570, when a high tide swallowed up half the village, consisting of 125 houses. It is now a town of about 8,000 inhabitants, consisting chiefly of neat brick houses, and entirely sheltered from the sea by these sandhills. A little way beyond the village, several immense hotels and bath establishments have been built for the increased accommodation needed, this being the principal watering-place for the Dutch people. The obelisk in the foreground was erected to commemorate the return of William I., after the French occupation.

Fig. 4.7 Text from *Picturesque Holland* (lecture: York & Son, 50 slides, in/before 1887), printed London: Lydall & Son, c. 1905, relating to Teaching Collection catalogue number 300.36, HEIR ID 50482. {Original in the Pre-Cinema collection of the Reuben Library of the British Film Institute }

As the Oxford School of Geography was making very selective purchases from these ‘travelogue’ type sets, it is highly unlikely that the academics were using extracts from the published texts in their lectures, but were instead incorporating a particular image as it related to the ‘text’ of their lecture.

No caption was visible to the academic lecture audience in Oxford on any of the Dutch slides and only a quarter of the 1,593 photographic images have visible captions. 335 of the 1,593 photographic images have a distinctive typed caption, a feature I discuss further in the next chapter. Not all captions were visible during projection as the caption had been masked over, however

they can still be read on the reverse when manually handled. Also, some, but not all, of those slides derived from printed material show the caption associated with the image in the original text. The inference that can be drawn from this lack of a visible caption is that the academic lecturer preferred to ‘talk’ to the slide and, thus, place their own interpretation upon the image, that is to create a multimodal form of discourse. This lack of a visible caption could, presumably, encourage the students to engage with the verbal discourse of the lecturer that accompanied the slide and not focus solely on the image and its caption which might engender a ‘wandering mind’ (Ralph *et al.* 2017).

The attitude of lecturers in regard to the intellectual conduct of students during lectures varied according to their personalities, but for his university extension students Mackinder specifically suggested:

“That the students do not attempt to take notes during the lectures. The syllabus is intended to take the place of notes. The student should aim at grasping the leading ideas developed by the lecturer, leaving details to be mastered in the text-books.”

(Mackinder 1888b: verso title page)

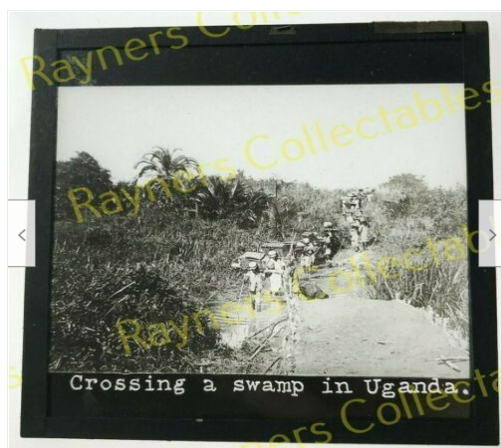


Fig. 4.8a Slide (previously available via eBay) showing typed caption.

Fig. 4.8b Slide in the Oxford Teaching Collection: catalogue number 500.191 (HEIR ID 51005) — caption masked but readable on reverse. (Reproduced

from HEIR with the permission of the Geography Collections, Social Sciences Library, University of Oxford.)

The slide in Fig. 4.8, together with the other 334 with this type of caption, appears to have been created by the Geographical Association during 1910 (Anon. 1910b) and I investigate this in chapter 5.4.

Although the majority of slides in the teaching collection of the Oxford School of Geography do not have a visible caption, it has been possible to locate a few of the texts that were produced to accompany the popular public lectures, as evidenced by Figs. 4.6 and 4.7. This reinforces Golding's contention that the same slide could be shown to both a 'friendly private gathering' or a 'large public audience'. This contention is echoed in James's reflections on the use made by her of images taken by her (James, W. 2010). Although principally dealing with images created after 1950 her comments that "the need to present the slides as a performance, which may be initially for family and friends but lends itself also to educational contexts" (James, W. 2010: 499) are also pertinent to the production of disciplinary vernacular photography, as defined by Edwards, within an academic setting which will be discussed in chapter 5.10.

This "flexibility of a slide show, where each performance can be different according to the audience and their interest, the pictures selected, the order, the lecturer's narrative and the speed of presentation" (James, W. 2010: 515) reinforces the many different interpretations that can be derived from the same image depending on the audience to which it is being shown. The image

of Loch Coruisk, also written as Loch Cornisk in this period, on the Isle of Skye (Fig. 4.9) is a case in point. The original was taken by the Aberdonian photographer George Washington Wilson in the 1880s and used in his public lecture *The west coast of Scotland: part 1. from Oban to Skye*, also marketed as *The road to the Isles*. The accompanying lecture text for this slide (no. 22 in the sequence) begins “Here we have one of the most savage scenes of desolation in Britain” (Smith, L.M.H. 1983: 50).



Fig. 4.9 Slide labelled as: ‘Skye: Loch Coruisk’
Teaching Collection catalogue number 240.15; HEIR ID 51467
(Reproduced from HEIR with the permission of the Geography Collections,
Social Sciences Library, University of Oxford.)

This lecture was part of the movement to attract an increasingly mobile middle-class, with enough leisure time to become tourists, to the Scottish Highlands and Islands. A movement in which photography played a significant

role (Cooke and McLean 2002, McKenzie 1992) and G.W. Wilson's role in promoting this area has been explored by several authors (Durie 1992, Padgett 1993, Withers 1994). The popular lecture text invokes the artistic concept of the picturesque, which was discussed previously, and which was a term frequently applied to the scenery on Skye by the photographer and water-colourist Reuben Mitchell⁴⁵ in detailing his 1876 'Trip to the Hebrides' in the *Photographic News*, as in his description of Loch Cornisk:

"To get to the lake alongside of the burn, it winding its way slowly towards the loch till it comes to the descent, which soon assumes a most wild and picturesque stream, rushing over rocks and boulders in all directions, and at last mingling with the silent loch below." (Mitchell, R. 1876: 460)

The image in Fig. 4.9 was part of the assets of G.W. Wilson when that company was taken over by the commercial firm of Newton & Co. There it was incorporated into their lecture series on *Physiographical geology*, specifically *Lecture VII: Ice, section B: Moraines*, no. 326, Loch Coruisk (Lucerna item 5082395) and it was from this academically orientated sequence that the Oxford School of Geography made their purchase. Within the Oxford School of Geography's teaching collection, 28 G.W. Wilson images had been re-issued in Newton's lecture series on *Physiographical geology* and of these 6 had been previously issued by Wilson in various popular lectures. It will be seen in chapter 6 that the diploma students

⁴⁵ Reuben Mitchell of Bolton, Lancashire (1812–1895) 'master engineer and iron founder' (1871 census), 'machine agent and artist' (1881 census) 'artist and agent for Woodite Co.' (1891 census).

similarly re-interpreted images initially orientated towards the popular tourist market.

4.8 Commercial Slides

The journey of the image of Loch Coruisk from popular lecture (G.W. Wilson) to a commercial lecture with a more educational focus (Newton & Co.) and finally, in this instance, incorporated into an academic lecture in the Oxford School of Geography gives a potted biography of a single photograph but, more generally, demonstrates the mobility of an image across genres of display and their concomitant audiences. Brower has commented on how “multiple circulations are central to meaning and significance” because “as photographs circulated, their function and meaning changed” (Brower 2008: 175).

However, the mobility of the images was not confined to physical movement within the British Isles. Table 4.5 shows the range of companies whose catalogues were scrutinized in order to procure appropriate slides to demonstrate the academic arguments being put forward in the Oxford School of Geography lecture theatre. This table also shows specific movement across Europe. In addition to the German and Swiss companies of Theodor Benzinger in Stuttgart, Wehrli A.G. in Zurich and Dr Franz Stoedtner’s Institut für wissenschaftliche Projections-Photographie in Berlin, the Oxford School of Geography also sourced material from Projections Molteni in Paris, although the extant images from this company are located within German speaking

areas. Whether this reflects the fact that Herbertson had graduated PhD from the University of Freiburg-im-Breisgau in 1898 or simply a better survival rate for these slides is, currently, a matter of conjecture.

Table 4.5 Commercial Slide Manufacturers present in the Oxford Teaching Collection

Theodor Benzinger	Flatters Ltd.	Projections Molteni	Newton & Co.	Franz Stoedtner	James Valentine	Wehrli A.G.	Robert Welch	G.W. Wilson	E.G. Wood
41	112	4	69	3	63	68	56	64	9

Both Benzinger and Stoedtner placed an emphasis on providing material for educational settings. In Benzinger’s case this was promoted in the United States as the introduction to Little's article makes clear:

“No teacher can hope to select the most desirable slides from the catalogs as now presented. When, therefore, one catalog was finally obtained which allows of this to perfection, it seemed that due publicity should be given the dealer, both for the information of teachers and as an example to American dealers of what every teacher would like to have placed before him. Any information of this sort should be cheerfully received by the latter in these days of increasing emphasis on Visual Education.”

(Little 1922: 312)

Stoedtner founded his institute in 1895 and concentrated the commercial activities on both the scientific and educational provision of photographic images.

“Founded in 1895 in Berlin the ‘Institute for Scientific Projection’, [was] one of the first commercial slide distributors with a scientific - pedagogical objective. In addition, the systematic compilation and supply of his photographic sets for research and teaching was ground-breaking.” [author’s translation]⁴⁶

⁴⁶ <https://www.uni-marburg.de/de/fotomarburg/bestaende/uebernahmen/stoedtner>, accessed 30 May 2022; “Gründete 1895 in Berlin das ‘Institut für wissenschaftliche Projection’, einen der ersten kommerziellen Lichtbildvertriebe mit wissenschaftlich-pädagogischer Zielsetzung. Darüber hinaus war die systematische Zusammenstellung und Bereitstellung seiner Bildserien für Forschung und Lehre wegweisend.”

Newton & Co. of London also concentrated on the educational market as the preliminary pages to Part II of their 1913 catalogue show. The company had expanded in the first decade of the twentieth century by taking over the businesses of York & Son in 1907 and the successor to G.W. Wilson in 1908 which necessitated both the move to larger premises in 1912 and the division of their catalogue into the smaller Part I, detailing “Sacred Slides, Religious Stories and slides suitable for Sunday Schools and children’s entertainments” (Newton 1913: iii) and the much larger Part II with its emphasis on “Educational and Scientific series and slides of all the Countries in the World”. Within this part of the catalogue just over 40% of the pagination is devoted to slides of a broadly geographical nature, including 763 slides in the full set of *Physiographical Geology*, already referred to and 120 slides on *Physical Geography* “selected and arranged for the Oxford University Extension” by Mackinder (Newton 1913: 502–503).

Of greater significance to the pedagogical importance of the visual in geography is the following comment within the introductory pages:

“That this is not a mere passing experimental method of teaching is evidenced [...] by the voluntary forming of a Committee by the Geographical Teachers of London, who have spent over a year of labour in order to select from the mass of available matter some 4,000 Slides to thoroughly illustrate both Geography and Physical Geography, in the manner most suitable, in their opinion, for modern educational requirements.”

(Newton 1913: vi)

There are, unfortunately, no further details available for the body known as the ‘Geographical Teachers of London’. Newton were also agents for the Diagram Co., whose contribution will be discussed in chapter 5.9, and the distributors

of the fifty lecture sets from the Visual Instruction Committee by the Colonial Office (COVIC), which sought “to provide for the adequate teaching of Imperial Geography” (Newton 1913: vi). The role of not only COVIC but also other sources of colonial imagery will also be discussed in chapter 5.

4.9 Commercial Sources: British Photographic Studios

There are more examples in the Oxford Geography teaching collection of the output of photographic studios located outside the United Kingdom than there are of imagery from individual studios within the British Isles. The slides created from overseas studios will be examined in chapter 5.1 in the light of an impetus from Mackinder to encourage ‘imperial geography’.

Because, unlike books entering the library of the Oxford School of Geography, the recording of the acquisition of individual slides was extremely haphazard the details of specific photographers can, often, only be determined by the careful examination of each item in the teaching collection. This has revealed the movement between photographic companies and lantern slide manufacturers as has already been noted in the discussion of Fig. 4.9. The firm of Flatters and Garnett of Manchester re-used images from, for example, Francis Frith (Menai Bridge, Bridges from The Mount 1890, no. 23193: Teaching Collection catalogue no. 230.3, HEIR ID 51597). Within the Oxford School of Geography teaching collection are 5 slides acquired from Flatters and Garnett in February 1905 which include the stamp ‘Pettitt series, Keswick’. This stamp indicates that the original photographer was Alfred

George Pettitt (1856–1883), the son of the better known (and often confused with) landscape painter, but also a photographer, Alfred Pettitt (1820–1880) and cousin to another Lake District painter Edwin Alfred Pettitt (1840–1912). His obituary in 1883 (Fig. 4.10) notes that he had recently been commissioned by Ruskin and both this article and that in the *British Journal of Photography* (Anon. 1882: 589) comment on his artistic qualities as a photographer. This emphasis on the ‘artistic’ was seen in Mitchell’s description of western Scotland referred to above and such references to, and an implied superiority of, the ‘artistic’ photograph reflects the contemporary debates that were occurring concerning the merits of photography (Keller 1984, Foa 2012).

DECEMBER 22, 1883.

Death of Mr. A. G. Pettitt.

With feelings of regret we record the death on the 12th inst. of Mr. Alfred G. Pettitt, the well-known Lakes District photographer, and eldest son of the late Mr. Alfred Pettitt, artist, of this town. Mr. Pettitt was a member of the London Photographic Society, and for the last few years his name has been brought repeatedly before the public at different photographic competitions, where his exhibits have been distinguished either with prize medals, honourable mention, or high commendation in every instance. His works not only show great artistic feeling but a thoroughly practical knowledge of photography. We understand that the last work he was engaged upon was for Prof. Ruskin at his residence, Brantwood, Coniston. Mr. Pettitt was one of our youngest photographic artists, being only 27, and was well and deservedly respected and esteemed, his particularly genial disposition and high principle having endeared him to an unusually large circle of friends, amongst whom his early death will long be deplored. His loss will also doubtless be regretted by brother artists who have been in the habit of visiting the Lake District from time to time with their cameras, and to whom he was ever courteous and obliging.

Fig. 4.10 Obituary of A.G. Pettitt, *English Lakes Visitor and Keswick Guardian*, 7(344): 4, col.5

Trachtenberg's 1980 edited volume of *Classic essays on Photography* contains several contemporary items presenting arguments within these debates. That by Robinson contends that rather than the photographer being "a mere mechanical realist without power to add anything of himself to his production" the operator of a camera should 'feel' as well as 'see' because "the mere bare facts of a scene will not be sufficient — there must be expression" (Robinson 1896: 65, 62). This is in contrast to the comments received by the editor of *The Studio* in response to his article concerning the relationship between photography and art which reveal the diversity of

opinions amongst both artists and photographers. Swan's⁴⁷ reaction reflects the attitude of several of the respondents: "I consider photography of great value as a scientific aid to the education of the sight, but in no way related to art, which is essentially human and emotional" (Anon. 1893: 102). Comments of the latter type reinforce the stance of the Oxford School of Geography's academics in seeking to impart a visual literacy and to provide their students with a means of developing an 'eye for the country'.

Pringle, himself an amateur photographer, was somewhat scathing in his dismissal of photographic images that did not conform to the expected values present in a 'picture' but were in his words "mere topographical photographs", although he conceded that "we have every right to make topographic photographs if we see fit" (Pringle 1893: 89).⁴⁸ This is in contrast to the use made of Pettit's images by the academics in Oxford where the topographical element took precedence over the artistic as they were used to illustrate glacial landforms in the English Lake District. Herbertson was lecturing on 'Types of landforms' as well as 'The British Isles' in Hilary 1905 (*Oxford University Gazette*, 1904–5, v. 34). The only other provincial British photographic studios that have been identified within the teaching collection are 2 images of Snowdonia by the better-known Lake District photographer, George Perry Abraham, also operating in Keswick and a former apprentice of Alfred Pettitt

⁴⁷ John Macallan Swan, R.A. (1846–1910).

⁴⁸ Andrew Pringle (1850–1929), member of the Edinburgh Photographic Society, a vice-president of the Royal Photographic Society in 1895.

senior, and one from the studio of Magnus Jackson in Perth (see Fig. 6.12b).^{49,50}

As will be demonstrated in chapter 6 on the illustrative material used by the diploma students in their work presented for examination, the presence of a local photographic studio was of value in sourcing material for a regional description. For the more generalised concepts being introduced in the lecture theatre, the catalogues of the main commercial slide manufacturers could provide the source for the requisite visual material. In the following chapter I explore why this was not always satisfactory.

4.10 Conclusion

In this chapter I have considered the concept of visual literacy and the role it has played in the development of an ‘eye for country’. Goin explored this when he proposed that “if a photograph is an illustration, then by virtue of that definition the photograph becomes supportive rather than creative, endorsing rather than original” (Goin 2001: 365). In this respect the photograph can be regarded as an ‘uncoded’ image of what is in front of the camera which must then be deciphered by an authoritative voice. In the case of the students of the Oxford School of Geography, who were the recipients of the image, they were enabled, by attending to the academic lectures, to share the meaning/s which the authority, i.e. the lecturer, wished the image to

⁴⁹ George Perry Abraham, 1846–1923, business continued by his sons, George Dixon Abraham, 1871–1965, and Ashley Perry Abraham, 1876–1951.

⁵⁰ Magnus Jackson, Junior (1865–1898) who succeeded his father, also Magnus (1831–1891).

express. Thus, the use of the lantern to project visual material during lectures required a competency in both visual literacy and objective observation from the students.

The above discussion has introduced some of the wide range of sources which were drawn upon and from which images were “arranged for consumption” (Ryan 1995: 53) in the specific arena of the academic lecture theatre. In this arena, the academics became not just consumers of the products of commercial manufacturers but producers of a specific type of knowledge which was often at variance with that suggested by the manufacturers of the lantern slides.

As was shown in the discussion of the image of Loch Coruisk (Fig. 4.9) the intention or expression of the meaning of an image was different for different groups or audiences, with the academic lecture theatre constituting one ‘specialized domain’ and the public hall another. The image thus became an illustrative example of the concept under discussion, which depended upon the location and the audience.

If “lantern slides have to be projected to be realized” (Jolly 2017) then it follows that “lantern slide projection made possible the academic training and exchange of ideas on which image-focused disciplines depended” (Riggs 2016: 277). Riggs was discussing projection in the context of the disciplines of archaeology and art history but other emerging disciplines of the nineteenth

century, notably anthropology and geography, were equally concerned with the visual (Edwards, E. 2015, Driver 2003).

However, in geography, visual literacy was not confined to the discernment of disciplinary knowledge in the images projected during academical lectures. It was also fostered by direct observation in the field where the academic leading the group could make the correlation between the reality of the landscape being viewed by the students and the theories being propounded in the lecture theatre.

The production of geographical knowledge was, therefore, being generated both by the authoritative voice of the academics within the lecture theatre and by the creation of a discipline specific visuality via the concomitant display of lantern slides during the lectures. There is, thus, the employment of a multimodal discourse and the specifics of a distinctive visuality, the ‘eye for country’, as well as the introduction of the specialist language of the discipline (Woodward-Kron 2008) which is enabling the development of specific disciplinary discourse within the Oxford School of Geography.

This chapter has, also, demonstrated the mobility of an image across many different genres as Jolly has noted “the magic lantern was an apparatus of reproduction, distribution and recombination” (Jolly 2017). Kember, meanwhile, has highlighted the presence of a transnationalism in the lantern trade which is evident within the Oxford School of Geography’s teaching

collection (Kember 2019b: 228). The mobility of an image across modes of production will also be referred to in chapter 5.8 when I consider the output of Robert Welch of Belfast.

But it is the mobility of a slide across genres of display that has been brought to the fore by the evidence in this chapter with regard to the sourcing of material from commercial companies for the Oxford teaching collection.

In the next chapter I investigate the wider mobility of imagery, firstly with regard to the impact of a colonial imperative. I then show how photographs originating in personal colonial collections were re-purposed to initiate the development of a distinct disciplinary photography. Further investigation of the teaching collection reveals that the academics themselves became a major part of this development.

Chapter 5

What is required is a good slide: the development of a disciplinary vernacular in the Oxford School of Geography

“I could not get a dozen satisfactory typical views from the ordinary lantern slide makers” (Herbertson 1915: 84)

The epigraph from Herbertson reveals the concern of a leading Oxford academic that it was necessary to present imagery that fulfilled a disciplinary function. This chapter continues to explore how photographic imagery was used by the academic staff of the Oxford School of Geography and how the imagery was integrated into the training of actual and prospective specialist school teachers. These questions flow from the primary research question of this thesis, namely, did photographic imagery play a significant role in both the production and transmission of geographical knowledge in Oxford before World War II?

Thus, this chapter continues to present the results of my research into one of the archives of the Oxford School of Geography, namely the teaching slide collection detailed in Appendix 1. The visual imagery projected in this archive was used in conjunction with the verbal discourse of the academic lectures to create geographical knowledge. Increasingly it becomes apparent that the academics moved away from popular commercial lecture slides towards the use of personal, or vernacular, photography, thereby creating geography’s own disciplinary vernacular.

In the previous chapter, I argued that as the production, and concomitantly the dissemination of geographical knowledge in the early twentieth century was enlivened by the increasing use of visual material, such as the lantern slide, this required a competency in visual literacy and objective observation from the students. In this chapter, I continue to investigate the sources used to construct the teaching collection of glass lantern slides from which the academics in the Oxford School of Geography drew illustrative material for their lectures. By using ‘slow looking’ and examining each slide in detail, I have been able to determine the source for over 80% of the collection which can be dated to before 1940. This detailed examination has enabled me to trace a progression in the development of a separate disciplinary mode of photography which I discuss in this chapter. The slides considered in the previous chapter were predominately depicting images of the British Isles and Europe. As Table 5.1 shows the rest of the world was not neglected and as the majority of the students had little or no experience of these areas then a greater proportion of the slides comprised images of the areas discussed in the lectures.

Table 5.1 Percentage of photographic images, as opposed to either maps or diagrams, present within the pre-1940 regional sequence of the Oxford Geography glass teaching slide collection

Region	Pre-1940 Total	Photograph	%
British Isles	337	185	55
Scotland (38%)	127	97	76
Ireland (23%)	78	58	74
Europe	497	249	50
Asia	393	348	87
India (52%)	204	177	82
Africa	232	196	84
British East & West Africa (47%)	109	94	86
The Americas	237	130	55
United States (60%)	144	79	55
Oceania	123	53	43
Total	1819	1161	65

The teaching collection of lantern slides, like the book collection in the Oxford School of Geography’s library, was organized into two broad sections which can be regarded as ‘thematic’, i.e., relating to broad topics within geography, such as geomorphology and plant geography, and ‘regional’, i.e., relating to specific areas of the globe. This coincides with Mackinder’s summation, in his 1895 presidential address to the Geography Section (E) of the BAAS, of the “two kinds of treatment” of the facts of geography, namely:

“The chapter-headings may be such as ‘Rivers’, ‘Mountains’, ‘Cities’, or such as ‘Ireland’, ‘Italy’, ‘Australia’. In other words, we may consider the phenomena of a given type in all parts of the globe, or we may discuss in a given part of the globe the phenomena of all types.” (Mackinder 1895a: 370–371)

This division had already been described by Freshfield⁵¹ in 1886 when he asserted that:

“Geography works in different ways: the first and simplest in the observation and arrangement of facts relating to a selected area: the description of a country ... or it may select and isolate its facts with regard not to locality, but to their individual character; it may collect all that is known of mountains, of volcanoes, of glaciers, of ocean-currents ...” (Freshfield 1886: 700)

As I discussed in chapter 2.3 ‘regional geography’ emerged as a primary paradigm within the new academic discipline of geography in the late nineteenth and early twentieth centuries. By using the case study of a specific region the range of sources of imagery, as enumerated in Table 4.2 in the previous chapter, can be investigated before a consideration of the imagery used in more thematic approaches to the study of geography is undertaken.

5.1 Commercial Sources: Overseas Photographic Studios

I noted in the previous chapter that there are more examples in the Oxford Geography teaching collection of the output of photographic studios located outside the United Kingdom than there are of imagery from individual studios within the British Isles. Table 5.2 shows the geographical range of these studios and in particular the predominance of establishments located within the Indian sub-continent.

⁵¹ Douglas William Freshfield (27 April 1845–9 February 1934) Member, RGS, 1869–1934 serving as Vice-President or President, 1906–1924; President, Geographical Association, 1897–1910; President, Geographical Section, BAAS, 1904

Table 5.2 Overseas Photographic Studios output present in the Oxford teaching collection

Region	India	North Africa	Canada + USA	Japan	Tasmania	Oceania
Studios	6	4	3	2	2	2
Images	14	8	6	9	6	7

The Indian studios include the large firms of Bourne and Shepherd, operating from Calcutta (Kolkata) and Simla (Shimla) with an agent, Marion & Co., in London, and Johnston and Hoffmann, Calcutta (Kolkata) and Darjeeling. There are also single operators, in what is now Pakistan, Frederick Bremner, Quetta and Lahore, and Randolph Bezzant Holmes, North West Frontier Province. The other studios are the Royal Art Studio, Gujranwala, Punjab (Pakistan) and the firm of H.A. Mirza & Sons, Chandni Chowk, Delhi. This firm's proprietors were practising Muslims and they, thus, had access to Islamic religious sites, e.g. Oxford Teaching Collection catalogue number 400.335; HEIR ID 51775.

As was revealed in the previous chapter, there was, in Britain, a sense, within the milieu of the official photographic exhibition, that landscape images should be judged on their ability to portray a strong artistic sense which conveyed the values expected from a 'picture'. This pushed against the quest by geographers to validate their subject by scientific enquiry into the topography. Such an emphasis on the 'art' of photography could cause problems for British photographers who set up studios in the colonies but then realised that the landscapes they were attempting to capture in their

photographs were on a scale that did not lend itself to the concept of the ‘picturesque’ as identified in Britain. In my general discussion of colonial photography in chapter 2.8 I investigated this apparent dichotomy.

The conflict between producing commercial ‘picturesque’ images of India for British consumption and the desire to record geographical accuracy for academe has been touched on by Ryan (2013) and Ollman (1983). It is also evident in the captions that have been assigned to the same image e.g. Fig. 5.1. Theodore Hoffmann titled his 1891 image ‘Picturesque view on the road between Lungthern and Be, Sikkim’ when he presented it to the RGS in 1894 (Coles 1894: 384 ; <https://images.rgs.org> : S0003255). The professional photographer Hoffmann was accompanying J.C. White on his “second expedition to the snows in June and July 1891” (White 1909: 63) and this image is reproduced facing page 60 where it is more prosaically titled “Bamboo roadway” with a description of the construction involved (White 1909: 64–65).⁵² It then appears in the Oxford teaching collection, in the section on ‘Nepal, Sikkim & Assam Himalaya’ with a distinctively styled caption “Native bamboo roadway”. I discuss such captions in more detail below.

⁵² John Claude White (1853–1918) Political Officer in Sikkim, 1889–1908.



Fig. 5.1

Teaching Collection catalogue number 400.296; HEIR ID 51752 (Reproduced from HEIR with the permission of the Geography Collections, Social Sciences Library, University of Oxford.)

This variety in the wording of the caption attached to an image will alter the perception of that image depending on the audience that views, or hears, a particular caption. It thus provides for the multivocality of an image, as part of its biography. It also demonstrates the necessity of paying attention to the context in which the image was created as well as to the audience.

5.2 Colonial Visual Instruction

Apart from colonial photographic studios, Table 5.3 demonstrates that, for the Indian sub-continent, the images were drawn from all of the principal categories as enumerated previously in Table 4.2. The first lectures specifically to include India were given by Herbertson in Trinity 1903 (*Oxford University Gazette*, 33(1077): 442) and for the 1914 Oxford Vacation Course

for Schoolteachers the lectures on India were given by W.H. Arden Wood (Cossar 1914: 420). Although William Henry Heton Arden Wood (1859–1932) was born and died in England the majority of his educational career (1885–1920) was spent at La Martinière College, Calcutta. On his final return to England, he became a lecturer in the Oxford School of Geography between 1923 and 1924. Although there is no proof in the archives it is possible that 5 of the 7 images of Bengal in the slide collection were made from his photographs (HEIR IDs 51794, 51795, 50962, 50964 and 50965) but they currently remain unattributed. If the attribution is accepted, then Table 5.3 shows that 40% of the Indian section can be directly linked to colonial officials whose contribution is discussed below.

Table 5.3 Breakdown for Photographic Lantern Slides of India, including the Himalayas, within the pre–1940 section of the Oxford Teaching Collection

Total	Studios	Newton Co.	COVIC	MacKenzie	Mason	Captioned	Publications	Unknown
177	14	7	7	26	38	32	27	26
%	8	4	4	15	22	18	16	13

The commercial slide manufacturer of Newton & Co. not only created sets relating to British India but was also responsible for the distribution of the sets compiled by the Colonial Office Visual Instruction Committee (COVIC). The COVIC programme was only one of many approaches to the perceived necessity of educating the peoples of the British Empire in a cohesive and

unified way; to “promote imperial sentiment by means of education”

(Greenlee 1975: 406)

Speaking at the first Imperial Education Conference in April 1911 Mackinder declared that “teaching [should] be from the British standpoint so that we see the world as a theatre for British activity” and that “our task as teachers of the twentieth century is to secure that our pupils shall identify themselves with the British Empire” (Mackinder 1911: 83–84). By involving himself with COVIC from its formation in 1902, Mackinder looked to “educate the citizens of the many parts of the British Empire not only from the point of view of the Homeland, but also of the Empire” (Mackinder 1911: 86). Ryan (1994b) and Moser (2017a, 2019) have revisited the work of the COVIC project to re-evaluate the influence of such imperial thinking on the wider public. Blouet (2004) has examined the development of Mackinder’s thinking about empire and his shift, between 1900 and 1903, from advocating free trade to embracing preferential tariffs for protecting imperial trade. The overall aim of COVIC was succinctly described as being:

“To provide, through the medium of lantern lectures, the means of giving as vivid and accurate knowledge as possible of the geography, social life and economic possibilities of the component parts of the British Empire [by making] a careful selection of typical and recent photographs, chosen to present as complete a picture as possible.”

(Anon. 1923: 64)

Initially COVIC sought to prepare illustrated lecture series on the United Kingdom for use in specific parts of the empire with the first, available in 1905, being designed for the colonies of Ceylon (Sri Lanka), the Straits Settlements (now incorporated into Malaysia) and Hong Kong. In this

endeavour, the committee was seeking to educate the peoples of the empire about the empire so as to enable them to regard it as a cohesive unit. The edition compiled for use in India was published in 1907 with the text authored by Mackinder and in 1909 it was re-published for use in British schools. In reviewing this 1909 edition, Joan Berenice Reynolds, one of the first cohort of Oxford diploma students, felt that it could provide a “stimulating supplement to geographical lessons given on more ordinary lines” but cautioned that “the spirit of the lectures is frankly Imperialistic” (Reynolds 1911: 73). The concluding words of the text bear this interpretation out:

“What is the chief lesson we should carry away from these Lectures? Is it not that the Empire can only be defended as a whole, and with the full co-operation of all its citizens? Surely then it is the duty of each of us to uphold the flag.”
(Mackinder 1909: 100)

This is, thus, an extension of Mackinder’s claim in 1907 that an aim of education should be “to make our people habitually think of themselves as primarily subjects of an Empire and not merely citizens of England” (Mackinder 1907: 35).

Mackinder officially left the Oxford School of Geography in 1905, as he had been appointed Director of the London School of Economics in 1903, in addition to his involvement with COVIC from 1902. The following comments which Mackinder made in 1911 are echoed in the epigraph from Herbertson which introduced this chapter:

“There are no doubt in the open market many excellent photographs and lantern slides available for illustrating the chief lands of the Empire, but they have usually been collected either without system by passing visitors whose main object was other than educational, or by residents who, from the very fact of their familiarity with the scenes,

are apt to omit pictures of the contrasts which for the stranger are most salient. Such considerable collections as are available have usually been made for special purposes as for the promotion of religious missions, or of emigration.” (Mackinder 1911: 84–85)

As a result of the lack of ‘educational’ purpose in the available imagery COVIC, at the urging of Mackinder, appointed Hugh Fisher, after a course in photography at the RGS, to tour the empire with a list of photographic desiderata.⁵³ From December 1907 to April 1908 Fisher journeyed through India and in 1910 the text to the series of eight lectures on India for use in British schools was published (Mackinder 1910). The text was written to accompany a set of sixty commissioned slides for each lecture but only 7 of the possible 480 slides on India are to be found in the extant Oxford Geography teaching collection. There are, in addition, no slides from any of the five lecture series on the other areas of the British Empire. Such a lack may be due to the differing objectives of the COVIC programme, which was directed towards school education and the development of citizens of the empire, as discussed by Meneghini (2022), and the Oxford School of Geography, which was focused on a single academic subject and the provision of a recognised teaching qualification in that subject.

5.3 Photography from Colonial Officials

As well as the overtly colonial intentions of the COVIC project, a number of other colonial attitudes can be discerned in the origins of a significant proportion of the Indian sub-continental images. Those which

⁵³ Alfred Hugh Fisher (1867-1945) primarily a painter, etcher and illustrator.

originated from commercial studios run by British white settlers in India were discussed above but over a third were derived from the photography of colonial officials. The mobility of such images was highlighted in the discussion of those created by the colonial museum curator, John Hewitt, in the previous chapter at section 4.7. The colonial officials that have been identified to date, whose photography is present in the Oxford School of Geography's teaching collection, worked principally in the forestry, irrigation and survey departments operating throughout British India. I demonstrated above, with regard to Arden Wood, that the Oxford School involved former officials in the promulgation of geographical knowledge within the lecture theatre. However, two officials subsequently became leading members of staff of the Oxford School of Geography: Nicol Finlayson MacKenzie (1857–1943), appointed Instructor in Surveying in 1905, and Kenneth Mason (1887–1976) who was appointed as the first statutory Professor of Geography at Oxford in 1932 when the Honours School degree was introduced.

MacKenzie had spent his career in India (1878–1902) as an engineer with the Irrigation Department of the North West Provinces, including the Punjab, but had returned to the UK to become the Senior Instructor in Surveying at the Royal Indian Engineering College at Cooper's Hill, near Egham, Surrey. When that institution was relocated to India in late 1905 MacKenzie, together with the college's Professor of Forestry, William Schlich, moved to Oxford. MacKenzie was appointed to replace Dickson who had

moved to the University College of Reading whilst Schlich founded the Oxford School of Forestry, like the Oxford School of Geography, the first at an English university (*Who's Who in Engineering*, 1922: 236; Burley *et al.* 2009). MacKenzie also gave lectures in surveying to the Schools of Engineering and Forestry until his retirement in 1927 as well as providing instruction for the Certificate in Surveying that the School of Geography offered and special courses in surveying offered to 'Sudan probationers' and to men "preparing for Egyptian or other administrative appointments or for exploration" (Anon. 1908: 242). Surveying continued to be offered as an option within the Final Honours School at Oxford until the 1970s, although by this time the numbers involved were so few that the course was amalgamated with that provided for first year engineering students.

Twenty-one men obtained the Certificate in Surveying between 1903 and 1925, six before World War I and fifteen after 1919. Three also went on to obtain the first part of the Diploma in Geography, i.e. the Certificate in Regional Geography, but none progressed this further as this was still of value in a teaching career. Of the seven from overseas, mainly Australasia, five were also Rhodes Scholars and only one overseas candidate obtained the certificate before World War I. Of the subsequent careers of these men eight became professional engineers (4 in civil, 3 in electrical and 1 in mining engineering), two were career officers in the army, including MacKenzie's son, and three

became colonial officers, including the only professional surveyor from this cohort, Frederick Stanley Tippet (1903–1982) in Ceylon (Sri Lanka).

Remarkably MacKenzie appears to have given very few lectures on irrigation at Oxford. However, he had also been appointed as the Special Lecturer on Irrigation at King's College, London University in 1908 (*Who's Who in Engineering*, 1922: 236). At Oxford he gave a series of lectures on 'Irrigation works' in the autumn of 1909 (*Oxford University Gazette*, 40(1278): 37) which resulted in the publication of extended notes on the subject. In the preface to that volume he states that "the lectures were addressed to Students of Engineering and to Students of Geography; the former interested in the subject from the professional, and the latter from the economic point of view" (MacKenzie 1910: v). The illustrations present in the book are entirely from a technical engineering point of view. Apart from a lecture on 'Irrigation in the Punjab' given during the 1914 Vacation Course (*Oxford University Gazette*, 45(1451): 369), MacKenzie's only other Oxford irrigation lectures appear to have been two on 'Recent progress in Indian irrigation' given to supplement Arden Wood's series on India in 1923 (*Oxford University Gazette*, 53(1692): 198). By then glass slides had been created in the School from MacKenzie's own photographs.

From the manuscript accession books of the School of Geography Library, we know that, in July and November 1920, 28 slides from MacKenzie photographs, were made by R.C. Maasz in the School's darkroom, the creation

of which will be discussed later in this chapter (University of Oxford Archives, GE 7/6). These images can, therefore, be regarded as vernacular photography albeit originally with the gaze of a colonial irrigation engineer. The concept of vernacular photography was discussed in chapter 2.11. In being re-purposed for academic geography their colonial gaze cannot be ignored as they, like most of the nineteenth and early twentieth century contemporary literature and photography, extol the virtues of British technological achievements rather than paying tribute to indigenous knowledge and expertise. Gilmartin (1994) provides an overview of these attitudes within the Indus Basin, where MacKenzie was working.

The Survey of India official, Mason, had been introduced to the potential of the camera in survey work whilst assisting in an experimental photogrammetric survey in the Lake District in 1907. This was before he went to India in 1909 where he used survey stereophotography in both 1913 and 1926 (Atkinson 1980). However, his photographs of the Taghdumbash Pamir (1913) and the Shaksgam Valley (1926) which are present in the teaching slide collection are not official survey images used in the construction of the maps but, again, can be regarded as personal, or vernacular, photography of the landscapes, principally of the glaciers in the region. Some of these images were reproduced in the official accounts of the survey expeditions (Mason 1914, 1928) but in making available a larger number for university teaching Mason broadened the visual experience of the students and transformed the

personal into the disciplinary. The sub-division of the genre of vernacular photography into that created for private consumption by the individual and that created by academics to enhance their disciplinary discourses was reviewed in chapter 2.11.

It was not only Mason who took vernacular photographs whilst engaged on official survey work. Images from the work of the Ordnance Survey in Sinai, 1868–1869 (Wilson, C.W. and Palmer 1869–1871), as well as from Survey of India work on several of the official boundary commissions undertaken between 1885 and 1913 are present in the Oxford collection. All of the images which originated within such official survey work have a distinctive style of captioning which will be investigated in the next section of this chapter.

Ryan (1995) has explored the role of such photography and the perceived value of its ‘scientific gaze’ and ‘visual truth’ in the context of the expansion of imperial goals in the second half of the nineteenth century. In examining various case studies, including the Royal Engineers in Abyssinia in 1867–1868, he asserts that “the process of photography embodied the grammar of observation and depiction at the heart of geographical science” (Ryan 1995: 57). Howe (2003) looked specifically at the imagery produced by the Royal Engineers in Sinai and Palestine and acknowledged that such imagery would embody colonial assumptions. Willette, however, takes issue with the same images, taken by McDonald, because they are “singularly

lacking in any spiritual feeling” and are “best seen as imperial images worked up by [...] a straightforward mind to record the terrain” (Willette 2015).⁵⁴ This latter looked for sensitivity within images of biblical lands echoes the looked-for ‘picturesque’ within landscape images discussed in the previous chapter. Both of these sensibilities pushed against the ‘scientific’ requirement of physical geographers.

It is the concept of a ‘visual truth’ within the landscape, rather than a cultural or aesthetic interpretation of the vista incorporated into the image, that allowed the academical use of such photographs within the Oxford School of Geography in the early twentieth century. I referred to this photographic truthfulness in the introduction to chapter 4. However, the recording of the terrain was of primary importance to the military whether in undertaking accurate survey work, making field sketches or in the taking of photographs and Mackinder acknowledged this when he averred that “we have geographical thinking in its rudimentary form in the eye for the country which characterises [...] the soldier” (Mackinder 1911: 80).

The RGS had sought to establish the scientific basis of geography by promoting overseas expeditions of exploration and it acknowledged the role that photography could play in representing landscape, in particular if that landscape could be regarded as both “disorderly and uninhabited” (Ryan 1995:

⁵⁴ Colour Sergeant James M. McDonald (1822–1885) Royal Engineers, biography Howe 1997:137–138; obituary Dec. 1885 *Royal Engineers Journal*, 15(181): 274.

66) and therefore ripe for British colonization and ‘civilization’. As an adjunct to this aim, the society added photographs to its library collections, although it was not until 1888 that it began to systematically note such additions in its journals. With 13.5% of its membership in 1900 composed of army officers (Stoddart 1986: 60), many of whom contributed to the growing photographic collection, it is unsurprising that material from this source is also present in the Oxford Geography teaching slide collection. The Oxford School of Geography did not, however, acquire such images direct from the RGS but via the Geographical Association as discussed in the following section.

In his report on the 1897 Toronto meeting of the BAAS, Bailey reviewed the paper on ‘geographical pictures’ given by the RGS librarian Mill and illustrated with ‘numerous lantern views’.⁵⁵ His resumé of the paper highlights the attention to be given to the end use and audience of the resultant images:

“In view of the prominent place now taken by photography in the work of all travellers it is necessary to urge the importance of taking pictures which are geographically as well as photographically "good." Such pictures must be truthful and representative, the utmost care being taken to avoid distortion, to supply some indication of scale, and to bring out the characteristic features. General views comprehending a considerable area are desirable for showing types of land-forms or sites of towns. Pictures on a larger scale are desirable for showing the detail of special features, such as varieties of architecture, means of transport, or agricultural processes related to certain geographical conditions. As far as possible every geographical picture should show something distinctly illustrative of a natural feature or a local condition peculiar to the place where it was made, or at least characteristic of it. The handsomest house in a village, the rarest foreign tree in a park or the prettiest view in a district, *represents the sort of subject most often photographed, and they are precisely those of least geographical value.*”
(Bailey 1897: 536 — present author’s emphasis.)

⁵⁵ Hugh Robert Mill (1861–1950), from 1892 librarian at the RGS

5.4 Captioned Slides

Within the regional sequence for India and the Himalayas there are 32 slides with a distinctive caption which can also be found on images from other areas of the world, excluding Europe and the British Isles. From various items within the *Geographical Teacher* it would appear that these were selected by the Oxford academics from the large number prepared by the Lantern Slide Committee of the Geographical Association. This committee had been set up at the suggestion of G.W. Palmer (Palmer 1906) and continued the original intention of some of the founding members of the Association that it should be a means of exchanging lantern slides between geography teachers.

Dickinson, a founding member of the Geographical Association and enthusiastic advocate of the lantern slide, elaborated upon the role of the committee in 1908 when he stated that “the work of collecting the slides and looking through the vast accumulation of photographs in the possession of the Royal Geographical Society is most arduous” (Dickinson, B.B. 1908: 161).⁵⁶ However, by 1910 it could be reported that “more than 2,000 view slides are now ready, these have been prepared on a new principle, with title and short description and in many cases sketch maps, to be clearly seen on the screen at the same time as the view” (Anon. 1910b: 294). In the 1910 revision of *Hints to teachers and students* attention was drawn to the work of this committee:

⁵⁶ Basil Bentham Dickinson (1863–1941) Assistant Master Rugby School 1887–1927; founder member of Geographical Association May 1893; founder Diagram Company 1896.

“To aid teachers in obtaining really educational views correlated in such a way as to be of the greatest use in the ordinary geographical course, a collection of slides, arranged in sets with specially written explanatory notes, has been made by the Geographical Association for hire or purchase by its members. As regards slides exhibiting maps and diagrams, special attention may be drawn to those published by the Diagram Company.”
(Mill *et al.* 1910: 51)

The Diagram Company is further discussed below. Table 5.4 shows the range of identified sources for these distinctively captioned slides that are present in the entire Oxford School of Geography Teaching Collection and which investigation has dated all to before 1910.

Table 5.4 Geographical Association Captioned Slides in the Oxford Teaching Collection

Pre-1940	Total G.A.	RGS	Books	Articles	Commercial	Unknown
2,457	334	96	43	24	42	129
%	14	24	15	10	12	39

It is the combination of the distinctive caption below the image, together with the occasional sketch map (see Figs. 5.2 and 5.3, also Fig. 4.8a) and the lack of a commercial trademark or logo, which has enabled the attribution of the Geographical Association as the source of these images. Unfortunately, the Accession Books of the School of Geography do not record any slide acquisitions for the period December 1908–December 1910. However, the Cash Analysis Books do record a payment of £12 to the Diagram Co., who were responsible for the sale or hire of Geographical Association view slides, on December 30th 1910 (University of Oxford Archives, GE 3/1), allowing for postage costs, etc. this would equate to c. 340 slides at the discounted rate of 8d per slide.



Fig. 5.2

Fig. 5.2 Teaching Collection catalogue number 600.26; HEIR ID 50743

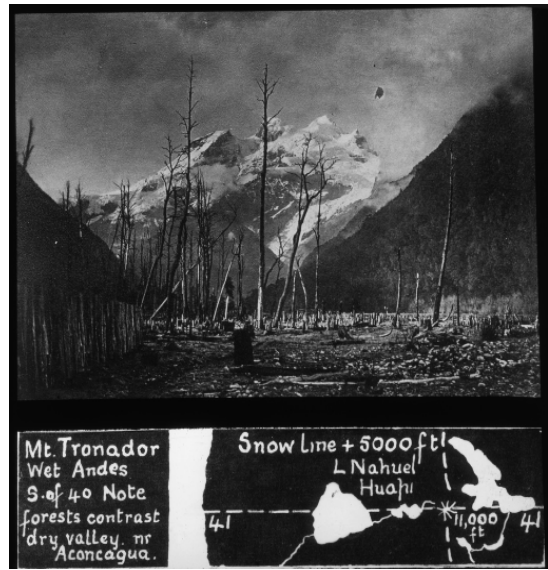


Fig. 5.3

Fig. 5.3 Teaching Collection catalogue number 600.20; HEIR ID 50737

(Reproduced from HEIR with the permission of the Geography Collections, Social Sciences Library, University of Oxford.)

Not all of the photographs submitted to the RGS were taken by military personnel or even members of the society. Fig. 5.2 was selected from a donation of 88 photographs to the RGS made by Eugène André during his visit to Britain in 1902 (Reeves 1903: 586–587).⁵⁷ He used this visit to be elected a Fellow of both the RGS (Anon. 1903a: 86) and the Zoological Society of London (Zoological Society of London 1910: 144). Although André registered as his the copyright in the images he incorporated into his book on the Caura

⁵⁷ Eugène André (1862-1922) Trinidadian botanist and explorer of Huguenot extraction; submitted 'The volcanic eruption at St. Vincent'. *Geographical Journal*, 20(1): 60–68 from Port of Spain, Trinidad, May 22 1902; Obituaries: *Port of Spain Gazette* 43(13073), p. 12, col. 5 Friday Dec 29th 1922; *S. A. F. and O. H. Annual: The Official 1922 Yearbook of the Society of American Florists and Ornamental Horticulturists* p. 155 Published 1923.

River Expedition, 1900–1901 (André 1904) they were actually taken by the expedition photographer, Jacobson.⁵⁸ The image in Fig. 5.3 was selected from:

“Twelve Photographs taken on the Chile–Argentine frontier, by W. Bartlett Calvert, Esq, in 1902.⁵⁹ An excellent set of enlargements of views of the Southern Andes, [which] are specially interesting as illustrating the natural features of the country.”

(Reeves 1904: 811)

The image of the waterfront in Ciudad Bolívar (Ciudad Bolívar), in Fig. 5.2, was not only re-used by the Geographical Association in their selection of representative ‘view slides’ for dissemination to teachers; but had already been published in a volume by the Herbertsons (Herbertson, F.D. 1902: 64) where it was unattributed (only the text extracts are given author credits in the volume). This re-purposing of an image, as was also the case for that of Loch Coruisk (Fig. 4.9), points to the beginning of a biography of the image as alluded to in the previous chapter. Also, the widespread acceptance of the truthfulness of a photographic image in this period, which was referred to in the previous chapter, meant that, for educational purposes, the ‘view slide’ or photograph conveyed the ‘true knowledge’ of the part of the world portrayed and that therefore the images acquired an indexical quality.

Figs. 5.2 and 5.3 carry captions which would be seen by the recipients of the projected images and in the above instances the captions would appear

⁵⁸ Semmy (or Shimy or Semy) Elias Jacobson born 2nd Jan 1847, Malchow, Mecklenburg-Western Pomerania, Germany; S.E. Jacobson photographic business, Port of Spain, Trinidad, c. 1899, in liquidation 1914; Returned to the United States, 1914 - granted US naturalization in 1921, occupation: retired photographer; died 16 Mar 1930, Philadelphia.

⁵⁹ William Bartlett Calvert (1856–1942). Born and died Plymouth, Devon; Chilean entomologist; Obituary: *Western Morning News*, 17th April 1942, no. 25669, p. 4, col. 5.

to be statements about the natural world about which there can be little contestation. However, not all of these captioned images can now be viewed as ‘uncomplicated’. The caption, by being visible to the audience, forces the attention onto one specific aspect of the image whilst simultaneously apparently ignoring other features.

5.5 Photographic invisibility

Photographic images as objects are not simplistically legible. Here I develop that idea by considering further how image captions, where visible, inscribe just one meaning out of many possible meanings on to that image.

The Oxford School of Geography’s teaching collection, by being eclectic in sourcing the images, enabled revisions to the original captions to occur in order to point more directly to a specifically geographical interpretation of the images. This was seen in the discussion of Figs. 4.9 and 5.1. Such revisions, by highlighting a single aspect of an image, could render other aspects less visible by precluding a discussion of them. For example, the image shown on the slide teaching collection catalogue no. 500.117 (HEIR ID 50005) was captioned, by the Geographical Association, as: “Camel & Ox ploughing together, Egypt”.⁶⁰ This image was originally produced, c. 1885, as a commercial photograph by the Cairo firm of G. Lékégian & Cie who, more

⁶⁰ Although increasingly uncommon the use of yoked teams of oxen continued in England into the first decades of the twentieth century. Presumably it is the combination of animals, particularly in tandem, that was being drawn to the attention of the viewer.

simply, titled it “Chameau laboureur” (‘camel ploughing’)

{<https://www.getty.edu/art/collection/object/104BT9>}.⁶¹

What both captions ignore is the local farmer using the animals as a means of moving his plough which highlights the potential for photographic invisibility of subjects within an image. Dilley, in his discussion of the photographic archive of a French colonial officer, limits photographic invisibility to the physical practices of manipulating the image, such as cropping the final print, and the concept of the ‘absent presence’ to such tangibles as the unseen presence of the photographer themselves and their social relationships to the subject of the photographic encounter (Dilley 2019: 10).

Benjamin conceived of the concept of the ‘optical unconscious’ to describe the added detail that can be discerned in images when they are either enlarged (as in the use of photomicroscopy or the close-up) or when the devices of freeze frame or slow motion are employed, thus enabling the visibility of minutia, more usually invisible, to be seen by the naked eye (Benjamin 1931: 510–512). Others have sought to expand this. In his discussion of the ‘optical unconscious’, Reinhardt refers to “the problem of the overlooked” (Reinhardt 2017: 194). It is the ‘problem of the ‘overlooked’ that I am invoking by broadening the term ‘photographic invisibility’ to

⁶¹ Gabriel Lékégian — French-Armenian photographer active in Egypt, c.1865–c.1895; official photographer to the British Army of Occupation in Egypt.

include both concepts of the ‘absent presence’ and a nuanced interpretation of the ‘optical unconscious’ and thereby making the term more analogous to another manipulation of the visual, that of the cartographic silence as proposed by Harley in 1988.

In his 1988 article introducing the concept of silences on maps, Harley discusses the toponymic silence whereby “conquering states impose a silence on minority or subject populations through their manipulation of place-names” (Harley 1988: 66). This is a theme which is being widely revisited as the original inhabitants of such areas seek to re-establish their ownership of the land (e.g. Berg and Kearns 1996; Herman 1999; Moll 2009; Pearce and Hornsby 2020; Wu and Young 2022). In a later article, Harley discusses the premise that because the creation of a map was seen as being both scientific and technological it, therefore, followed that it was objective in its creation of a truthful reality (Harley 1989a: 4). Harley is, however, seeking to investigate the “illusion of cartographic objectivity” (Harley 1989b: 82). This closely follows the attributes that were initially assigned to photography in the nineteenth century, which I investigated in the previous chapter, and which have subsequently also been subjected to intellectual scrutiny.

Whilst maps can be redrawn and republished to display the original toponyms and can then be displayed alongside the colonial maps which silenced sections of the local populations, no such luxury can be afforded to the peoples present in nineteenth or early twentieth century photography.

Moser discusses the concepts of the ‘optical unconscious’ and the ‘absent presence’ in her exploration of the collection of more than 7,600 images made by Alfred Hugh Fisher for COVIC between 1907 and 1910 (Moser 2017b). By revisiting this archive, she is able to “focus on details that the captions tell us are unimportant” (Moser 2017b: 240) or indeed are ignored altogether in the captions. Such omissions could be the result of cultural blindness or be the ‘amnesia of the imperial gaze’ (S. Willcock, pers. comm.) and there are examples of such ‘photographic invisibility’ within the captions assigned by the members of the Lantern Slide Committee of the Geographical Association, now to be found within the Oxford Geography Teaching Collection.

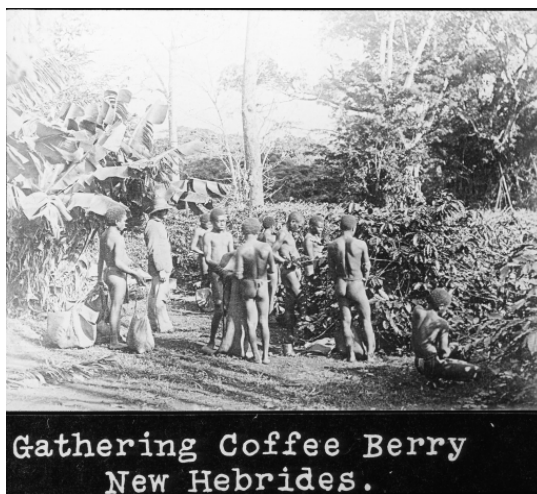


Fig. 5.4a

Fig. 5.4a Teaching Collection catalogue number 910 25; HEIR ID 51065

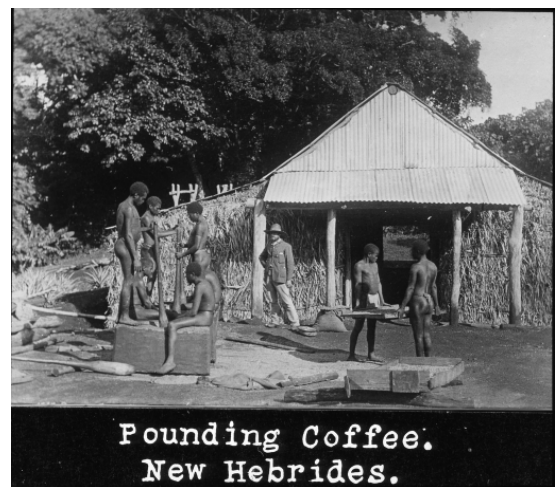


Fig. 5.4b

Fig. 5.4b Teaching Collection catalogue number 910.23; HEIR ID 51063

(Reproduced from HEIR with the permission of the Geography Collections, Social Sciences Library, University of Oxford.)

Figs. 5.4a and 5.4b are from a series of 4 images showing various stages of coffee production in the New Hebrides (Vanuatu) which can be traced back

to July 1891 when the RGS received a donation of 53 photographs. In noting this donation, the map curator commented that:

“This is an excellent series of photographs of the scenery and groups of natives taken by Mr. J. W. Lindt during his travels through the islands of the New Hebrides Archipelago in 1890.⁶² 1890. They are intended to illustrate a work, similar to *Picturesque New Guinea*, which Mr. Lindt intends to publish.” (Coles 1891: 448)

The intended book did not materialize but Lindt reproduced his images as lantern slides to accompany popular public lectures, which created an interest in island tourism in the area (Cato 1955: 73). This, therefore, constitutes another example of the mobility of images across multiple arenas of transmission which I alluded to in the discussion of Fig. 4.5.

Like André, Lindt took the opportunity to register his copyright in 21 of these images at the Stationers’ Company.⁶³ Fig. 5.4a is specifically listed as “no. 4: Photograph Gathering the Coffee Berry, Rathmoy Estate, Efate, New Hebrides”. He used the photographs he had taken on the Rathmoy Estate, (the proprietors from 1889 were the Roche Brothers), to illustrate his lecture on coffee production in Melbourne (Lindt 1893). In that talk he briefly touches on the subject of acquiring the labourers for a plantation (Lindt 1893: 39–40) and his donation to the RGS includes an image of such ‘recruiting’.⁶⁴ The captions, created by the Geographical Association, draw attention only to the stages in

⁶² John William Lindt (1845–1926), German born Australian landscape and ethnographic photographer, photojournalist, and portraitist; Official photographer New Guinea Scratchley Expedition, 1885; the RGS supported Lindt’s expeditions, New Hebrides, 1890 and Fiji, 1891.

⁶³ COPY 1/402/328: Photographs registered at the Stationers’ Company. 1890 Oct–Dec <https://discovery.nationalarchives.gov.uk/>, accessed 5 August 2022.

⁶⁴ <https://www.gettyimages.co.uk/detail/news-photo/recruiting-panckumu-malligolo-new-hebrides-vanuatu-1891>, accessed 11 August 2022.

the production of coffee and no explicit reference is made either to the white overseer nor to the actual workers. These men may be local to the area or, more likely, indentured labourers drawn from other islands, a practice colloquially known as ‘blackbirding’ which was only effectively abolished in Australia following the passing of the Pacific Island Labourers Act, 1901.

Without the actual texts of the lectures delivered in the Oxford School of Geography during this period, it is impossible to say whether attention was drawn to the ethnographic subject matter available in the images discussed above or whether they were used only to illustrate commercial agricultural practices outside the British Isles. The latter seems more likely as within the Oxford Geography teaching slide collection there are few solely ethnographic images. The teaching of this subject (Geography of man: ethnography) was ‘outsourced’ to the then recently established School of Anthropology and later Honours School lectures on ‘Elements of Physical Anthropology’ were given in the Department of Human Anatomy. Anthropology had been taught at Oxford since E.B. Tylor began lecturing on the subject in 1883 in the Pitt Rivers Museum.⁶⁵ A Diploma in Anthropology was inaugurated in 1905, the first such course to be offered in a British university — a history which closely mirrors that of Geography.

⁶⁵ Edward Burnett Tylor (1832–1917) often regarded as the ‘father of anthropology’; appointed Oxford University Reader in Anthropology, 1883, Professor in 1895; overview at <https://web.prm.ox.ac.uk/sma/index.php/articles/article-index/336-edward-burnett-tylor-1832-1917-part-2.html>, accessed 16 Oct. 2022.

As was noted in the discussion of Fig. 4.8, not all of the Geographical Association 'view slides' had their assigned caption visible to the attenders of Oxford geography lectures. Table 5.5 shows that over a quarter (28.6%) were masked by the Oxford School to preclude their legibility. A further five slides, within the total number, show the provided sketch map but have masked the accompanying text and have been discussed in Squibb (forthcoming).

Table 5.5 Geographical Association captioned slides in the Oxford Teaching Collection with text masked

Region	Total Captioned	of which masked
Near East	9	1
Himalayas	29	12
Peninsula India	3	0
S. & S.E. Asia	25	5
Far East	62	37
N. Africa	28	6
E. Africa	45	18
W. Africa	51	17
S. Africa	1	0
The Americas	49	0
Australasia	11	0
Oceania	21	0
Thematic	2	0
TOTAL	335	96

Whether the original caption was regarded as too simplistic for university students or whether the academics wished to draw attention to other aspects of the projected image is unknown, but it can be assumed that by

removing the visibility of the caption the academics were reducing the potential for photographic invisibility. This is borne out by the more general lack of captions across the entire teaching collection, 75% of which is captionless.

One area where it might be expected that a caption would be visible is on those slides which were sourced from published items, indeed the continuation of the quotation which introduced this chapter (where Herbertson lamented the difficulty of acquiring commercial lantern slides) is: “I had to take them from books” (Herbertson 1915: 84). As Table 5.3 showed there are 27 slides constructed from images already present in publications in the public domain within the section devoted to the Indian subcontinent, although in all of them the published caption is not visible. This may be because the majority (22) were taken either from works written by Kenneth Mason or from accounts of expeditions in the Himalayas after he was appointed Professor of Geography in 1932. As with the slides from the Geographical Association, the caption as given in the publication is not visible in the projected image but it is possible to read the original caption on the reverse and so determine the source of the image. Full details of such captions, as given in the source publication, are recorded in Appendix 1.

5.6 The development of a departmental darkroom

Table 5.6 Slides taken from published items before 1940

Pre-1940	Total from publications	Holliday	Flatters	Books (In house)	Journal Articles (In house)	Maps (In house)
2,457	717	92	12	450	145	18
%	30	13	2	63	20	2

Initially the School of Geography relied on the Oxford firm of Holliday & Son in Broad Street to create bespoke slides. Although the principal trade of this company was that of optician the son, Herbert Alfred (1870–1934), had recognised the potential of photography and had developed that side of the business by 1901. However, the last entry in the accession books for bespoke slides from Holliday & Son is for 3 slides in March 1913 as by this time the School's own darkroom was functioning with R.C. Maasz, Herbertson's clerical assistant, becoming a competent photographer.

The cash analysis books of the department shed some light on the acquisition of lantern slides and the in-house production of such images. The Report of the Geographical Committee for 1907 (*University of Oxford Gazette*, 38(1232): 491) announced the formation of a dark room within the Oxford School, apparently on the upper floor of the Old Ashmolean Building rather than in the building it rented in Broad Street, with the cash books giving the expenditure during December 1907 for an 'instrument and photographic

materials' from Druce (University of Oxford Archives, GE 3/1).⁶⁶ The use of their own darkroom was a gradual process with the first three 'in-house' slides created the following January (University of Oxford Archives, GE 7/4), but its use was in tandem with outsourcing to Holliday & Son until 1913, who, along with Druce & Co., continued to supply photographic materials required for slide making beyond this date.

With a close analysis of the accession books of the library and the cash analysis books of the department, together with genealogical research, it has been possible to shed some light on the non-academic members of staff who supported the lecturers by creating the images they desired to use in the lecture theatre. In this way one small, everyday part of the history of the Oxford School of Geography can emerge from the shadows. As a 'hidden space' (almost literally to staff and students) it becomes part of Lorimer and Spedding's excavation of a material site that is part of the 'domestic environment' of the Oxford department (Lorimer and Spedding 2002: 298).

Between 1908 and 1911 the slides 'Made at School' were created by John Gilbert Wiblin (1879–1959), a graduate of the university who, after his marriage in 1910 became a proof-reader at a typewriter and typewriting agency. He was succeeded in the dark room by Ronald Cuthbert Maasz (1898–1986), who left school aged 14 to become Herbertson's clerk in 1912. By 1914

⁶⁶ George Claridge Druce (1850–1932) pharmaceutical chemist, 118 High Street Oxford from 1879; Kelly's Directory of Oxfordshire, 1907, advertisements section, p. 31, Photographic chemist. Better known as botanist and mayor of Oxford.

he was combining those duties with the making of lantern slides (University of Oxford Archives GE 7/6) which continued until at least 1928 (University of Oxford Archives GE 3/4). The annual report of the Geographical Committee noted that 160 slides had been ‘made at school’ in 1914/15 and a further 111 the following year (*University of Oxford Gazette*, 46(1475): 143; *University of Oxford Gazette*, 47(1511): 239). This activity is not noted in any other report but it enabled the School to reduce its purchase of commercial slides from 201 in 1913/14 to 26 in 1914/15 (*University of Oxford Gazette*, 45(1451): 368; *University of Oxford Gazette*, 46(1475): 143). However, by 1933 Maasz had moved from the School of Geography to become a librarian at the Taylor Institution, also in Oxford.

The next known maker of slides is Eric Albert Milliner (1910–1944) who had joined the staff of the School by 1931 (University of Oxford Archives GE 3/4) and was being paid for lantern slides in 1937 (University of Oxford Archives GE 3/6). This is in addition to his principal employment as secretary to the School and assistant librarian. After he enlisted in the R.A.F. in 1940 his place as the School’s photographer was taken by Peter Bradford (Scargill 1999: i). The last departmental photographer (Martin Barfoot) left in 2003 as the expansion of the digital environment had enabled the academics to process their own material and create the now ubiquitous ‘PowerPoint’ presentation and not rely on the slide projector to illustrate their lectures.

Whether the early assistants also operated the lantern itself is not recorded. However, for ‘special’ lectures given by external guest lecturers professional lanternists, such as J.T. Timms, were employed at a cost of 1 guinea (£1 1/-, £1.05p). He is recorded as such for the special lecture on Antarctic Exploration (with Lantern slides) given in the Examination Schools on 27 May 1910 by Dr. W.S. Bruce of the Scottish National Antarctic Expedition of 1902–1904 (*University of Oxford Gazette*, 49(1303): 684; University of Oxford Archives GE 3/1). John Thomas Timms (1844–1924) was another Oxford resident who saw the possibilities created by the development of photography and the rise of the public lecture using the magic lantern by adding the job title of ‘lanternist’ to that of his principal occupation, that of ‘boot upper closer’. His son, Bertie Ewart (1881–1962), expanded this side of the business both in Oxford (1911 Census) and later in Witney (1939 Register of Civilian Population) as a ‘Lanternist & photographic dealer’. This is just one further example of a neighbourhood network as discussed by Kember (Kember 2019b: 228).



**TIMMS' Photographic
and Lantern Stores,**
3, CASTLE STREET
(Bottom of QUEEN STREET),
OXFORD.

Every Requisite for Lanternists. Entertainments Provided.
Speciality—BIOSCOPE DISPLAYS.

Lectures illustrated with High-class Apparatus.
Thousands of Slides for Sale or Hire.
— Cinematographs and Films. —
Photographic Apparatus and Accessories.
... Developing and Printing.

Lanternist to the BRITISH ASSOCIATION, THE BRITISH MEDICAL CONGRESS, THE UNIVERSITY
EXTENSION and the OXFORD CAMERA CLUB.

Fig. 5.5

Kelly's Directory of Oxfordshire, 1907: Advertisements section p. 38

Having explored various sources present within a single region, I now move onto those sources which are more prominent in the 'thematic' sections, such as 'plant geography' and 'geomorphology' and where there is a greater prominence of interested individuals providing the original imagery, even though the lantern slides were obtained via commercial firms.

5.7 Geography of Plant Associations

One distinguishing feature of geography as practised within the Oxford School of Geography was the integration of various scientific disciplines into a cohesive approach based on a consideration of the spatial aspects of those disciplines. Over time such approaches have led to the emergence of sub-disciplines such as biogeography.

In the 1901 Regulations for the Diploma in Geography, it was compulsory for candidates to have an “elementary knowledge of chief generalizations on distribution of animals and plants” (*University of Oxford Gazette*, 31(1008): 329). In order to acquire this knowledge they were expected to attend lectures in other departments (*University of Oxford Gazette*, 29(951): 374). The lack of dedicated lectures for diploma students did not prevent the School from offering a course on ‘Plant Geography’ to the attenders of the 1908 Biennial Summer Vacation Course for Teachers of Geography. This was given by Marcel Hardy, a founder member, with A.G. Tansley, of the Central Committee for the Survey and Study of British Vegetation, the forerunner of the British Ecological Society.⁶⁷ He was also an associate, like Herbertson, of Patrick Geddes in Edinburgh (Stevenson 1978: 59). Herbertson, in his 1910 presidential address to the Geographical Section of the BAAS, commented upon the emergence of ecology as:

“A new movement, inspired mainly by Professor Flahault in France, Professor Geddes in this country, Professors Engler, Drude, and Schimper in Germany, has arisen among botanists, and at last we have some modern botanical geography which is really valuable to the geographer.” (Herbertson 1911: 641)

The 1910 Oxford summer vacation course for teachers also offered specific lectures on the ‘Vegetation of Britain’ by C.E. Moss of the Cambridge Botanical School (Herbertson, F.D. 1910: 338).⁶⁸ In the 1911 revision of the

⁶⁷ Marcel Edgard Hardy, 20 May 1876 Liege, Belgium – 29 Sept. 1939 Nice, France.

⁶⁸ Charles Edward Moss (1870–1930); Founding member of British Vegetation Committee, 1904; Curator of Cambridge University Herbarium, 1908–1917; Professor of Botany, Johannesburg, 1917–1930.

Oxford Geography Diploma course a new option of ‘Biological geography’ was introduced which specifically included “the character and distribution of the chief plant formations and associations” (Anon. 1911c: 164). It is this which stimulated the addition of a number of slides related to this topic to the teaching collection. One German publication, which had been endorsed in the *Guide to geographical books*, was Karsten and Schenk’s *Vegetationsbilder* described as:

“a series of collotype reproductions of photographs of vegetation typical of different formations and associations. They are exceptionally well chosen and reproduced, and are accompanied by short descriptions in German” (Mill *et al.* 1910: 113).

However, for lantern slides created from this publication the School initially turned to the commercial firm of Flatters, Milborne & McKechnie in Manchester before Maasz was able to create subsequent requests, although again not all captions are visible (February 1913 - 12 slides from Flatters; December 1915 - 6 slides made at School (University of Oxford Archives GE 7/5 and GE 7/6)). This publication used the photography of field workers as the source of its illustrations and, therefore, demonstrates the role of a disciplinary vernacular, as I defined in chapter 2.11, in the wider dissemination of academic knowledge. This aspect of the Oxford curriculum is discussed in Squibb (forthcoming).

Such re-use of imagery is also shown in the case of the single colonial forestry official so far identified, James William Oliver (1850–1914). He had his photographs of Burmese forests published in *Pflanzen-geographie auf*

physiologischer Grundlage by A.F.W. Schimper, 1898 from which the Oxford School of Geography drew some of its teaching slide material. The 1903 English translation, *Plant geography on a physiological basis*, was described as “an indispensable work for the school library, both for its text and for its illustrations (over 500), which present admirable pictures of the nature of the vegetation in different parts of the world” (Mill *et al.* 1910: 113). Interestingly it is the original German edition which provides the majority of the 27 slides from this source. Again, the re-use of original photographs by workers in the field, initially in the publication and then in the subsequent recontextualising as a lantern slide for transmission during an academic lecture hints at both the mobility of an image and its biography. Occasionally the images from this publication also exhibit ‘photographic invisibility’ as I defined above. This is illustrated in the teaching collection catalogue no. 400.472 (HEIR ID 51725) where it is listed as “Banana trees, Ceylon” but in the book as “Fig. 49: Bananen (*Musa sapientum*). Ceylon. Im Vordergrund: *Manihot utilissima*. Nach einer Photographie” but both captions ignore the white owner and the local workers, although neither caption is visible when projected.

5.8 General Academic Sources and their use of ‘amateur’ photography

Not all field workers who took photographs during their research work either published the images in the official accounts of that work (e.g. Mason 1927, 1928) or made them available for others to publish (e.g. Oliver as detailed above). Some, like J.L. Myres, contracted with commercial

companies, such as Newton, to publish their photographs as lantern slides (Harlan 2005: 207).⁶⁹ However, an examination of the Newton catalogue for 1913 makes no mention of Myres as the photographer for the image of a Mycenae circle and graves (Harlan 2005: 206; Newton 1913: 788; HEIR IDs 52586 and 53609).

Table 5.7 shows the range of sources which I have assigned to the category of ‘general academic’ which I defined in the previous chapter as ‘images available on the open market but derived from academics’.

Table 5.7 General Academic lantern slides within the Pre-1940 Collection

Pre-1940	Total General Academic	Crump	BAAS Geology	Diagram Co.	G.A. typed caption	G.A. (Palmer)
2,457	696	144	80	101	334	37
%	28	21	11	15	48	5

Flatters and Garnett, rather than Flatters, Milborne and McKechnie, were the source of a major acquisition in the area of plant ecology when they became the agents for the ‘Crump’ series during the first decade of the twentieth century (Flatters 1911: 8).⁷⁰ Again, the evidence for the acquisition of these slides is from the Cash Analysis books rather than the library accession books as a payment of £10 6/1d was made to Flatters in February

⁶⁹ John Linton Myres (1869–1954) archaeologist, classical historian and photographer; supporter of and lecturer at the Oxford School of Geography; first Chair of the Committee for Anthropology at Oxford from 1905 when the Diploma was introduced; President Geographical Association 1925

⁷⁰ William Bunting Crump (1868–1950) Science Master, Heath Grammar School, Halifax, retired 1915 due to deafness.

1911 (University of Oxford Archives GE 3/2); at 15/- the dozen this would equate to at least 144 'Crump' slides (the number in the Oxford Geography collection) together with postage and insurance. As a commercial company, Flatters were in a position to disseminate Crump's images more widely than he was able to do so from his home and in their 1911 catalogue the firm enumerated the universities of Cambridge and Liverpool, as well as Oxford as users of this series. The evidence that Crump initially produced his own slides comes from an appendix listing sources for lantern slides (Gregson 1912: 151) although it is likely that he was no longer doing so in 1912.

Crump was also a member of the British Vegetation Committee and, as a result of this connection to Tansley, passed his photographic collection to the Oxford University Botany Department (later Department of Plant Sciences, now part of the Department of Biology) (Anon. 1933: 488). The formation of the British Vegetation Committee in 1904 meant that the original intention of forming a BAAS Botanical Committee for co-ordinating the details of photographic images, proposed in 1902 (Botanical Photographs Committee 1904: 416), lapsed with regard to British vegetation and the task of collecting images in this area was passed to the Vegetation Committee under the auspices of Tansley at Cambridge (Botanical Photographs Committee 1908: 417–418). Botanical imagery was not the only area of interest for the BAAS as it had set up committees for the collection of photographs of anthropological interest in 1898 and geological interest in 1889.

The BAAS Geologic Photographs Committee was extremely active and published lists of the images received up to the seventeenth list in 1911 by which time a total of 5,200 photographs had been received and were stored with the British Geological Survey. The British Geological Survey have digitized the bulk of this collection, now numbering nearly 7,000 items but only those related to the island of Great Britain.⁷¹

Such was the prestige of the work of this committee that a selection of its photographs was included in the exhibits in the British Pavilion at the 1904 International Exhibition in St Louis, Missouri (Royal Commission 1906: 22–24). These exhibits included 4 photographs by Godfrey Bingley, 5 by Robert Welch and 1 by M.K. Andrews of the Belfast Naturalists' Field Club.⁷²

Bingley was a prolific amateur photographer not only of geological subjects but also those of an architectural or archaeological nature.⁷³ Like Myers, he also agreed to commercial firms (in his case Flatters & Garnett) reproducing some of his images as lantern slides (Jones, J.E. 1987: 123). He is probably the biggest contributor to the BAAS Committee of Photographs of Geological Interest, with over 1,000 attributed to him on the British Geological Survey

⁷¹ See http://earthwise.bgs.ac.uk/index.php/History_of_photography_in_the_British_Geological_Survey, accessed 25 August 2022.

⁷² Mary Katherine Andrews (1854–1914) Irish geologist, one of the first women to be active in this area, Honorary Secretary, geological section, Belfast Naturalists' Field Club (BNFC) after its establishment in 1893. Between 1891 and 1894 she contributed 71 images of Ireland and a further 5 on Dorset to the BAAS committee. Only one of her images is present in Oxford.

⁷³ Godfrey Bingley (1842–1927) engineer and iron founder; Obituaries: *Leeds Mercury*, April 19th 1927, no. 27,281 p. 5, col. 4.; *Proceedings of the Yorkshire Geological Society*, 21(4): 344.

Geoscenic website. The donation of his entire output to Leeds University in 1913 is of significance which, only now, is beginning to be fully appreciated beyond the Department of Geology e.g. Jarman (2019).⁷⁴

Of the 80 images from the BAAS Geologic Photographs Committee within the Oxford Geography Teaching Collection 8 are by Bingley, whose mastery of the camera enabled him to capture the “intimate relationship between geology and scenery” (Wray and Vernon 1930: 344) and a further 8 are by Welch, who was a professional photographer rather than an amateur like Crump and Bingley.⁷⁵ Welch also took an active role in scientific societies, including becoming President of the Belfast Naturalists’ Field Club, and his photographs feature in the BAAS botanical lists as well as those of the geological photographs committee. The value of his imagery to geographers was emphasised in the report of the BAAS meeting in Belfast in 1902 where he was described as “that rare man the professional photography [*sic*] who has scientific interests” (Anon. 1902a: 523). His archive has been deposited with the Ulster Museum and his contributions to many aspects of Irish life have been discussed by Evans and Turner (1977) and McMichael (2021) amongst others.⁷⁶ His imagery was also mobile across genres of display, not just in albums of photographs and lantern slides but it can also be found in the

⁷⁴ Also <http://geoscenic.bgs.ac.uk/asset-bank/action/viewHome>, accessed 8 September 2022 and https://explore.library.leeds.ac.uk/special-collections-explore/12653/godfrey_bingley_photographic_archive, accessed 8 September 2022.

⁷⁵ Robert John Welch (1859–1936).

⁷⁶ <https://www.nmni.com/collections/history/photographs/welch-collection>, accessed 8 September 2022.

popular culture of cigarette cards. The Belfast tobacco firm of Gallaher issued over 60 sets of cards within their cigarette packets, one of which was of ‘Irish views’ based principally on the photography of Welch, the complete set of 600 cards in this series being issued between 1908 and 1910.

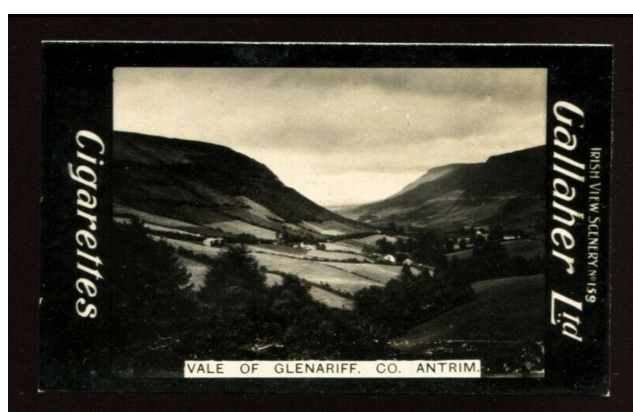


Fig. 5.6a



Fig. 5.6b

Fig. 5.6a Tobacco Card, Gallaher, Irish View Scenery, 1908, Co. Antrim no. 159; <https://www.ebay.com/itm/334211631990>, accessed: 8 September 2022. Fig. 5.6b Teaching Collection catalogue number 250.54; HEIR ID 51619 (Reproduced from HEIR with the permission of the Geography Collections, Social Sciences Library, University of Oxford.)

The image in Fig 5.6 is listed as “Glenariff at ‘the Meeting of the Waters’, R.W. 583” in the Welch archive.⁷⁷ However, Welch also marketed it in his ‘Geology of Co. Antrim’ series as no. 49 “Glenariff, eroded in Basalt & Trias, Talus slopes cover Cretaceous & Trias” (detail taken from labelling strip on slide in Oxford teaching collection). This is, therefore, an example not only of the multiplicity of genres of display but also the multiplicity of

⁷⁷ <https://www.nmni.com/collections/history/photographs/welch-collection/belumyw01512>, accessed 8 September 2022.

interpretations that can be assigned to a single image and constitutes an illustration of the complex biography of an image that can be excavated from an apparently hidden history.

5.9 Influence of the Geographical Association

The role of the Geographical Association in transforming personal photography into imagery that was intended to be used within an educational setting has already been explored in this chapter in relation to those slides with a distinctive caption.

Dickinson, a leading member of the Lantern Slide Committee, was also the founder with A.W. Andrews of the Diagram Company.⁷⁸ Although paper material for geography teachers was produced, the company was primarily known for its production of lantern slides of geographical content, mainly in the form of maps of physical geography covering the globe. In his reminiscences, Dickinson not only comments on “the value of photography in illustrating geography lessons” but also on how “after a long series of costly experiments, an entirely new method was worked out of colouring slides by photographic devices” (Dickinson, B.B. 1931: 5, 10). The Diagram Co. is known to have employed at least one ‘lantern slide colourist’ as the 1901 census has Thomas Nicholls of that occupation living with A.W. Andrews at the office of the Geographical Diagram Co. in Clapham. In 1911 Nicholls is

⁷⁸ Arthur Westlake Andrews (1868–1959) for further details see footnote 4 in chapter 2.

living in New Malden, Surrey (also address of the Diagram Co.) as a ‘lantern slide map maker’.

Dickinson described Andrews as a “fairly expert photographer” (Dickinson, B.B. 1931: 10) and in 1908 the Oxford School of Geography received 80 slides from Andrews including 7 on Cornish granite landscape, 3 of which have been identified in the teaching collection (University of Oxford Archives GE 7/4). Andrews association with Cornwall was apparent at the 1903 A.G.M. of the Geographical Association (Anon. 1903b: 14), in his 1905 article (Andrews 1905) and in the paper delivered to the BAAS 1907 meeting where his “many beautiful lantern slides” of the Land’s End coastline were commented upon (Anon. 1907a: 423). This is an example of a lecturer taking photographs with a view to incorporating the images into his lectures and it, therefore, constitutes an example of the disciplinary vernacular. It is a progression in this concept from the repurposing of ‘personal vernacular’ for disciplinary purposes which was evidenced in the earlier discussion of the imagery from MacKenzie and Mason. It is, also, an example of the circulation of such imagery across the discipline.

The last category in Table 5.7 is an example of the transition to disciplinary vernacular as these slides were specifically taken by a member of the Lantern Slide Committee of the Geographical Association for the purpose of being sold to geography teachers. G.W. Palmer’s rationale for his suggestion to set up the committee and subsequent action was that “any

teacher of Geography who has tried to obtain good slides, other than diagrams, to illustrate the greater part of Geography knows the difficulty of getting what he wants” (Palmer 1906:177).⁷⁹ This was a refrain taken up by both Mackinder and Herbertson as I noted earlier. Palmer created a series, using his own photographs of the Dora Baltea valley in North West Italy, to illustrate the physical geography of mountain regions. He, like Carter (Carter 1901: 27), emphasised the effort that was likely to be involved in obtaining suitable images saying that “hand cameras are of little use for this kind of work” and that “a considerable variety of lenses [were required including] a wide-angle lens, a lens of ordinary focus and either a lens of very long focus or a telephoto lens or attachment” (Palmer 1906: 178). This is at variance from the experiences of the Oxford diploma students as I discuss in the next chapter.

The notes to accompany each slide were published as a result of a lecture to the Geographical Association (Palmer 1909) and these images are, therefore, an early example of ‘disciplinary vernacular photography’ which was being disseminated beyond the individual teacher to the wider educational establishment as the set was available for purchase from the Geographical Association. The presence of annotations on a significant proportion of the slides (either letters or arrows) which were referred to in the published text would enable others to deliver the intended lesson in their own classrooms. It

⁷⁹ George William Palmer (1869–1919) schoolmaster, Clifton College, Bristol 1901 & 1911, later Christ’s Hospital, Horsham, Surrey. 11 photographs of sites in western Scotland were taken from his negatives in 1920 (after his death) and added to the BAAS Geological Photographs Committee’s collection.

will also be shown in chapter 6.8 that a number of the diploma students similarly annotated their illustrations (photographs or postcards) to draw attention to specific features that they were discussing in the text of their geographical descriptions.

The geographical knowledge discourse which is being presented in Palmer's slide set is one which was specific to the promulgation of the discipline of geography within a secondary school setting. This was relevant to the Oxford School of Geography as the intention of the Diploma in Geography course it offered was to provide subject specialist teachers. As will be seen in chapter 7, 66% of the male and 74% of the female students between 1906 and 1939, whose regional descriptions are extant, pursued teaching careers.

Herbertson continued to emphasise the need for geographers to take their own photographs and then find channels, such as the *Atlas photographique des formes du relief terrestre* an international collaborative work initiated during the Ninth International Geographical Congress of 1908, in which to disseminate their knowledge. In his report on the progress of the committee convened to undertake this work he reiterated that "we are all familiar with the disheartening work of looking through hundreds of lantern slides and pictures only to find one or two per cent, of any value for teaching" (Herbertson 1912a: 211).

5.10 Disciplinary vernacular photography

I discussed the concept of disciplinary vernacular photography in general terms in chapter 2.11 but here I have been developing the concept with specific reference to the discipline of geography as it evolved in the early twentieth century. Within the Oxford School of Geography teaching collection, there are examples of imagery taken by Oxford academics during overseas field visits which they had made into slides by outside agencies but which appear not to have been disseminated beyond the Oxford lecture theatre.

A.G. Ogilvie arrived in Oxford in 1912, having already amassed a personal collection of some 800 lantern slides, with photographs taken during his visit to the Alps the previous year.⁸⁰ In May 1912 he had some of these made into slides by Bayzand (University of Oxford Archives, GE 7/5) which he annotated on the titling strip with detailed notes.⁸¹ These cannot be regarded as captions in the conventional sense but would have aided Ogilvie when structuring his lectures (e.g. Teaching Collection catalogue number 380.36, (HEIR ID 50622) Arolla Glacier, Tongue. Fast shrinking. Dirt bands effect of ice fall. Surface stream, ice cave ‘a.g.o.’). From Withers’ research into the Ogilvie diaries, we know that before his appointment as ‘Junior

⁸⁰ Alan Grant Ogilvie (1887–1954) Junior Lecturer Oxford 1912; Research degree, B.Sc. 1915; 1919–1920 Reader in Geography, Manchester; 1923–1954 Edinburgh, appointed professor 1931.

⁸¹ Charles John Bayzand (1878–1958) Geological draughtsman 1901 census; 1911 census Geology Museum assistant Oxford University. (sister Ada, photographic artist in 1901).

Demonstrator in Geomorphology' in the Oxford School of Geography in January 1912, he spent the summer of 1911 in the Alps "taking notes on the glaciers and using a new camera bought especially for the purpose" (Withers 2010: 3).

Van Aalst, when discussing online collaborative education, has considered three modes of knowledge discourse "knowledge sharing, knowledge construction, and knowledge creation" as being involved with "a transmission theory of communication", an "understanding of concepts, phenomena, and situations", and "learning mediated by shared objects" or rather "a set of social practices that advance the state of knowledge within a community" (van Aalst 2009: 260). By looking specifically at how Ogilvie shared his knowledge we can see these modes in operation in an earlier, pre-computer, age.

Ogilvie was creating knowledge by his research into glacier movement theories and communicating the results, not only verbally in his Oxford lectures but also textually, in his article which included diagrams but no photographs (Ogilvie 1912). Further he was communicating that knowledge visually, both with his lantern slides and in the construction of a model (now in the collections of the History of Science Museum, Oxford <https://www.hsm.ox.ac.uk/collections-online#/item/hsm-catalogue-17885>).

Whilst the fieldwork undertaken by the diploma students for their geographical descriptions of regions within the British Isles did not include

actual glaciers, an understanding of the erosional and depositional effects of past glaciations was necessary. The notes on the paper title strips of Ogilvie's slides, presumably present to be delivered during the showing of each slide, assisted in the creation of that understanding. As van Aalst states:

“Understanding and knowing are mediated by the objects, including ideas, that a community creates and shares; rather than residing inside individual minds, ideas are regarded as cultural objects (or intellectual artifacts) that mediate knowing and understanding.” (van Aalst 2009: 264)

Ogilvie replaced M. M. Allorge who was the ‘Temporary Lecturer in Geomorphology’ between 1908 and 1911.⁸² It is highly likely that the 20 images of Messina, all dated 1909 and principally showing the physical effects in the landscape of the major earthquake (Richter scale 7.5) of 28 December 1908, were taken by Allorge in April 1909 during the Easter vacation of Oxford University. Two are specifically dated ‘April 1909’ and all were made by the Oxford firm of Holliday. An entry in the cash books in June 1909 shows an expenditure of £1 14/- for lantern slides to Holliday (University of Oxford Archives, GE 3/1). The effects of this earthquake on the urban infrastructure of the region were well documented by photographers at the time (e.g. Società Fotografica Italiana 1909) but the Oxford sequence of images concentrates on the geomorphological effects evident in the

⁸² Maurice Marcel Allorge (1878–1964) from Louviers, Eure, Haute Normandie also appointed assistant in the Geology Museum, Oxford in 1905 and in September 1910 as one of the secretaries to the International Geological Congress in Stockholm due to his language skills which included Italian. [<https://gw.geneanet.org/genoa?lang=fr&p=maurice+marcel&n=allorge>, accessed 8 January 2021] See also *Earth Sciences History* 21(2): 182–183.

surrounding country (vertical displacement, ground cracking, liquefaction, landslides, etc.). Their usefulness in documenting such effects is evidenced by the re-use of six by M.M. Sweeting after 1951, as they were discovered within her sub collection of the total Oxford Geography slide archive.⁸³

Another instance of an image which can be classified as disciplinary vernacular from this period, and which also migrated from the general teaching collection to that of an individual academic within the Oxford School of Geography is HEIR ID 49284 where the caption is given as ‘Cloud observed during S. Burster Sydney 1894’. This image can be correlated with the following entry from the Mss accession books: “25th November 1912: 1 slide “Cloud during S. Burster” presented by W.G. Kendrew Esq.” (Oxford University Archives, GE 7/5).⁸⁴ In the Michaelmas (autumn) Term of 1912, Kendrew gave his first set of eight lectures on meteorology and in 1947 and 1949 was lecturing specifically on wind systems so that the image is now located within the Kendrew sub-set of the whole Oxford Geography slide archive. The same image was also reproduced in the chapter on ‘Weather and Climate’ by Hunt and Taylor (Herbertson and Howarth 1914:134) where it is credited to Griffith Taylor.⁸⁵ This is, therefore, a further example not just of

⁸³ Marjorie Mary Sweeting (1920–1994) geomorphologist; for details of career see Baigent *et al.* 2020: 71–75.

⁸⁴ Wilfrid George Kendrew (1884–1962) Oxford Diploma in Geography, with distinction, 1911; lecturer in climatology; for details of career see Smith, C.G. (1997) *Geographers: Biobibliographical Studies*, 17: 43–51.

⁸⁵ Thomas Griffith Taylor (1880–1963) for details of career see Powell, J.M. (1979) *Geographers: Biobibliographical Studies*, 3: 141–154. Also, Powell, J.M. (1990) *Taylor*,

the transmission of knowledge within the academic milieu of the Oxford geography lecture theatre but also a sharing of knowledge on an international scale. It also contributes to the circulation of geographic knowledge through textbook publication.

The specific examples cited above demonstrate the wide and varied use of vernacular photography in the development of a disciplinary discourse in geography in the early twentieth century. If university teaching has a goal of developing the disciplinary literacy of the students, then all aspects of that literacy must be considered. As Nichols *et al.* suggest, the following ‘constellation of the modes’ involved in the disciplinary literacy need to be woven together into a single strand:

- “(1) the indicative language practices (e.g. verbal, visual, and mathematical) of the disciplinary discourse,
 - (2) the comprehension of the functions of the literacies in representing geographical processes and
 - (3) the fundamental tools for meaning-making and knowledge building”
- (Nichols *et al.* 2013:180)

The academics of the Oxford School of Geography were engaging with both the verbal and the many forms of the visual in order to generate and transmit geographical knowledge to the students.

5.11 Conclusion

The role of the lantern, and concomitantly the photograph, in the teaching of geography was a constant theme in the early twentieth century

Thomas Griffith (1880–1963) Australian Dictionary of Biography. Available from <http://adb.anu.edu.au/biography/taylor-thomas-griffith-8765>, accessed 9 January 2021.

(e.g. Carter 1901, Davies, 1904, Dickinson, B.B. 1908) with an emphasis placed on the “scientific rather than an artistic mind” (Hall 1903: 19). This helped to ensure that a disciplinary, as well as a disciplined, visual component was created during the production of geographical knowledge. As Herbertson noted in 1915, the relevance of an individual source had to be weighed against its pedagogical value. As I have shown in this, and the preceding, chapter there are a wide range of sources which were drawn upon and from which images were ‘arranged for consumption’ in the specific arena of the academic lecture theatre.

I have argued in this chapter that there is a relationship between vernacular and professional image making. An example of this is the right acquired by the commercial company of Flatters & Garnett to be sole agent for the photographs of plant associations taken by W.B. Crump. This relationship was also evidenced by the contract between Myres and Newton & Co. which blurred the boundary between the academy and the commercial. This boundary is also blurred when the role of such professional photographers as Welch of Belfast in the taking and supply of academic material is considered.

This chapter has revealed the movement of images from a personal perspective but taken without an academic geographical view into the disciplinary vernacular of geography. This was noted in the imagery of McKenzie and Mason where the original view was that of the engineer and surveyor but which was then re-purposed for the Oxford Geography lecture

theatre. In the wider field of scholastic geography, the role of the Geographical Association in both the re-purposing of members' photographs from the collections deposited in the RGS and the provision of imagery specifically taken for educational dissemination has been uncovered.

Not all photographs taken in the field by academics made their way into a commercial arena, e.g. those taken by Allorge and Ogilvie discussed above. It is the taking of photographs in the field and their subsequent display during lectures that led to the construction of a disciplinary vernacular within geography. In creating such a disciplinary vernacular, the academics would bear in mind the purpose of the illustration and select their subject accordingly (see Golding 1904: 33). By attending to the context of the creation of the image, I have revealed that the academics ensured that the information they wished to convey was embodied within the resulting image even if the image would be categorized as 'visually banal' or 'merely topographic' by professional photographers seeking to replicate an artistic sense of the picturesque.

Although this, and the preceding, chapter have been principally concerned with the transmission of geographical knowledge via the use of the lantern slide in the academical lecture theatre they have also revealed the circulation, both national and international, of the imagery involved. The discussion has also revealed the translation of the content of the image across genres of display, but I have concentrated on the contribution of these images

to the creation of a visual literacy within geography. The use of vernacular photography helped to construct a geographical knowledge discourse in the early twentieth century. By interpreting and understanding such discipline-specific representations they can be integrated into the language of geography, whether that is written or verbal. Such a construction of a specific discipline's discourse involves the establishment of a relationship between the ways of knowing the discipline and the modes used to represent that knowing (Airey and Linder 2009).

The specialized domain of the geographical academic lecture is both a site of production of knowledge and a site of transmission of that knowledge. In the next chapter, I evaluate the evidence for the reception of that geographical knowledge by the students who attended the lectures. I explore the impact of the visual literacy acquired in the Oxford School of Geography, both from the simulacrum of photographic lantern slides in the lecture theatre and from the directed observational techniques developed during field trips, by investigating the students own use of the visual in the regional descriptions they presented for examination.

Chapter 6

Demonstrating the ‘eye for country’: Oxford students' fieldwork

“Students of geography would exercise the powers of analysis and composition, and not merely observe and remember.” (Mackinder 1895a: 378)

I, here, return to Mackinder who emphasizes the value of informed observation embodied in the concept of the ‘eye for country’. The previous two chapters investigated the sources used by the academics to procure glass lantern slides which they used to illustrate their lectures. Taken together, the oral lecture and the visuals provided by the slides enabled the academics to generate geographical knowledge. In this chapter, I seek to understand how the students studying for the Diploma in Geography at Oxford received that knowledge.

By investigating both the first site of production of geographical knowledge in the creation of a collection of photographic lantern slides and a first site of transmission of that knowledge in the use of that collection in the lecture theatre I have amplified the empirical question of: ‘What use was made of photographic imagery by early Oxford geography staff?’ I have, also, introduced the role of direct observation under the guidance of an academic in the actual field. By now moving to a consideration of the second site of production of geographical knowledge, I address the empirical question of: ‘What use was made of photographic imagery by early Oxford geography students?’ thus, further amplifying the significant role played by photographic imagery in the production of geographical knowledge before World War II. In

presenting the results of their independent fieldwork for examination, the students provide evidence for the reception of the knowledge from the first site of transmission. . The evidence for the students' use of photographic imagery is to be found by examining the illustrations present in the regional descriptions submitted as part of the examination for that diploma. The requirement to submit such a description was introduced in 1906 and continued as a compulsory requirement for the diploma until that examination was discontinued in 1939. It was, also, incorporated within the examination for the undergraduate honours degree in geography from its inception in 1932 until 1969.

In March 1906 notice was given that students would be required to submit “a paper on the geography of the district shown on any sheet of the One Inch Ordnance Survey maps, together with relevant tables, maps, diagrams and other illustrations” (*Oxford University Gazette*, 36(1167): 410). However, the exact wording altered slightly over the years and the phrase ‘other illustrations’ was not always included in the *University of Oxford Examination Statutes* before 1922. This component of the diploma course was to be “based upon *personal observation* as well as a study of maps, statistical returns and books” (*Oxford University Gazette*, 36(1167): 410, present author’s italics).

In this chapter I explore the context of the use of photographic imagery by the students. I, also, investigate the sources that they drew upon to provide

the illustrations for their regional descriptions. The data collected by a close looking at the content, intention and audiences of this material is tabulated in Appendix 2 and abstracted in Annexe 4.

The students, however, did not only receive geographical knowledge in the forum of the academic lecture theatre. They were also “trained to observe” during the weekly field trips incorporated into the timetable from 1905, although they had been included on a more ad hoc basis from 1900 (Myres 1926: 285). By actively encountering the ‘*country*’ their ‘*eye*’ was educated in a geographical way of looking. From 1902 the School also timetabled ‘practical instruction in regional geography’ under the auspices of Herbertson.

Unfortunately, without any further references in the archive as to what was included in this weekly series it is impossible to determine the role that was given to the incorporation of the visual into regional geography. This lecture / seminar series ran in tandem with ‘practical instruction in surveying and mapping’ given by H.N. Dickson and B.V. Darbishire and ‘practical instruction in geomorphology’ given by Herbertson.^{86,87}

⁸⁶ Henry Newton Dickson (1866–1922), lecturer in physical geography, Oxford 1899–1906; head of geography department, University of Reading 1906–1920; obituary 3rd. April 1922, *The Scotsman*, p. 7, col. 5.

⁸⁷ Bernard Vernon Darbishire (1865–1935), cartographer at RGS 1892–1896; lectured at Oxford 1901–1903; assisted in summer schools 1902–1906; co-partner, with William Stanford, in firm of Darbishire and Stanford and ‘Oxford Geographical Institute’ 1902–1904; separate business from 1904.

6.1 Regional Description

Initially the area was based upon that covered by a single sheet of the Ordnance Survey 1" New Series, each covering nearly 200 square miles. This series covered the island of Great Britain in 491 sheets and is also referred to as a 'small sheet' series. But by 1910, when the 'larger sheet' series of the 3rd edition covered the same area in only 283 sheets, and when the description was formally incorporated into the diploma examination, the regulations simply called for a "detailed geographical account of a selected district based on personal observations" (*Oxford University Gazette*, 1910, 40(1305): 781). This enabled the students to follow Herbertson's ideas concerning 'natural regions' more readily as the area studied could be based upon a perceived geographical unit, such as a river basin. I discussed the broad concept of regional geography in chapter 2.3.

The impetus for the regional descriptions can be traced to Mill's paper read to the RGS in 1896 where he outlined a proposed geographical description of the British Isles to be based upon a series of memoirs made to accompany the 1-inch Ordnance Survey maps and the specimen memoir he subsequently compiled (Mill 1896; Mill 1900). In this proposal, Mill was looking towards the memoirs of the British Geological Survey as a possible template.

Herbertson followed this with an example of a description of a 1-inch sheet which was written with the needs of the geography schoolteacher in

mind (Herbertson 1902b). He illustrated this paper with maps, sections, profiles and photographs, thereby encapsulating the variety of visual material that his students would later incorporate into their own regional descriptions. The Oxford Diploma in Geography was conceived with the object of training specialist geography schoolteachers and as the curriculum evolved in its early years the role of fieldwork in the local region and its attendant description, both written and visual, emerged as a valued practical application of geographical studies. This, then, coalesced into the compulsory examination requirement of the regional description. As Herbertson, in his Presidential Address to the Geographical Section of the BAAS in 1910, reported:

“At Oxford we are continuing Dr. Mill’s work. We require our diploma students to select some district shown on a sheet of this map for detailed study by means of map measurements, an examination of statistics and literature which throw light on the geographical conditions, and, *above all*, by field work in the selected district.”

(Herbertson 1910: 475, present author’s italics)

Herbertson’s championing of the regional approach is evident, not only in his works cited above, but also in the incorporation of the regional description into the examination requirements after he succeeded Mackinder as director of the Oxford School of Geography in 1905. In Mill’s original paper the various components of such a description were outlined, including the geology, soils, climate and natural vegetation and how these impacted on the relationship of the inhabitants with the land in regard to aspects of human geography such as agriculture, industry, sites of towns, lines of communication and distribution of the population. Mill also suggested that, with regard to illustrative material:

“A few carefully selected photographs of typical scenery should accompany each sheet; some sketch-maps and diagrams might also be included; one or two characteristic profiles on a natural scale could be given.” (Mill 1896: 351)

Such a variety of visual material was incorporated into the Oxford students’ descriptions to illustrate the points made in their texts. Commenting later on his proposal Mill acknowledged that although well received it had not been pursued by others except in so far as to become “a model for exercises in regional description by geographical students” (Mill 1921: 12).

Such a regional description of a limited area was seen by Herbertson as feeding into the more general project of compiling a detailed regional geography of the whole of the British Isles, as envisioned by Mill in 1896, but which was never realised in practice. Herbertson, during his time in Edinburgh between 1896 and 1899, was also influenced by the ideas of regional survey as propounded by Geddes from his Outlook Tower in Edinburgh.⁸⁸ Rudmose Brown explored this influence when he gave the 1948 Herbertson memorial lecture. There he showed how Geddes’s breadth of outlook, which started from a scientific base, chimed with Herbertson’s own preference for the scientific aspects of physical geography, including meteorology (Rudmose Brown 1948). Geddes developed an understanding of the synthetic nature of geography when he physically constructed a tower from which he could look out and survey Edinburgh in its regional context. Geddes employed Herbertson as his assistant in summer schools in his Edinburgh Outlook

⁸⁸ Patrick Geddes (1854–1932) polymath, now principally known for his contribution to town planning and sociology.

Tower, an idea that Herbertson developed in his own summer schools for geography teachers in Oxford (Stevenson 1978; Jay, L.J. 1979; Baigent *et al.* 2020: 56–59). Geddes's ideas led to the regional survey movement which has been identified by Matless as being prevalent in geography between 1918 and 1939 (Matless 1992) and which I discuss further in chapter 7.3.

As the numbers of students grew so too did the number of regional descriptions and Herbertson pushed for the publication of the best (*Oxford University Gazette* 1909, 40(1293): 406). The first to be published was that of Charles Mansfield Ewing (1885–1963, diploma 1912) but although illustrations were included in the original description none appeared in the published text (Ewing 1912–1913). This was followed by the physical geography section of that of Benjamin Wood Baker (1880–1917, diploma with distinction 1911) where photographs were included but the copy in the Oxford archive is of the text only (Baker 1915). That of Osbert Guy Stanhope Crawford (1886–1957, diploma with distinction 1910) was finally published as a monograph, rather than in a journal, in 1922 with an extended section on the archaeology of the area (Crawford 1922). With Herbertson's death in 1915 the push to publish the students' work was removed.

There are references in the literature to other students' work, such as Crawford's presentation to the Geographical Section of the BAAS at the 1910 Sheffield meeting (Reeves 1910: 468; Anon. 1911a: 661). He, along with Lavinia Mary Hardy (1867–1950, diploma with distinction 1910), also

presented to the Research Department of the RGS in March 1911 (Anon. 1911b: 573). In 1915 Geddes, in noting the “many excellent regional theses” produced by the Oxford School of Geography, drew particular attention to that of Lavinia Mary Hardy (1867–1950, diploma with distinction 1910) which unfortunately is not extant in the archive (Geddes 1915: 335). Hardy also toured her description to the 1914 Dublin Summer School. Charlotte Alner Simpson (1879–1962, diploma with distinction 1910) presented regional work with her brother, Anthony Henry Simpson (1887–1915, regional certificate 1911) to the Birmingham meeting of the BAAS (Reeves 1913: 471; Simpson, C.A. 1914) which may have been based upon his description. Unfortunately, his description is not present within the archive and, thus, there is no record of the area he studied whilst Charlotte’s work is present but reveals that she studied South East Devon for her diploma.

Mabel Mary Barker, (1885–1961, diploma 1913), reported that “one of the Surveys made by all students of the Oxford School of Geography” was displayed in the exhibition in the Outlook Tower, Edinburgh (Barker, M.M. 1914: 323). Unfortunately, it is not possible to attribute this to a specific student as Barker only states that it was concerned with Haselmere [sic] and none of the extant descriptions in the archive discuss this area. There is the possibility that Blanche Hosgood’s (1882–1953, diploma with distinction 1914) work on ‘Southern Forfarshire’, published in 1919, was based on her

diploma description from 1914 but, again, the Oxford geography archives contain no record of the area she selected for her description.

Regional surveys, discussed further in chapter 7.3, were not, however, confined to geography as the burgeoning discipline of plant ecology had developed from the botanical survey movement as outlined by Lowe (1976) and Schulte Fishedick (2000). Hughes developed this idea when he explored the role of photography in the emerging discipline in the early twentieth century as well as the development of what he termed the ‘ecological eye’, an eye that had to be “trained and experienced” (Hughes, D. 2022: 2), phraseology which was frequently alluded to in the geographical literature emphasising the need to train the ‘eye for country’.

However, both of these emerging disciplines were following the lead of the Geological Survey of Great Britain. The director-general of this body, Roderick Impey Murchison (1792–1871), who was appointed to that position in 1855, called for a “series of memoirs to illustrate the sheets of the Geological Survey”, the first of which was published in 1857 (Hull 1857: 3). Murchison was not only active as a geologist but was also one of the founder members of the RGS in 1830 and a powerful supporter serving as its president on four separate occasions; the last when he served from 1862 to his death in 1871. He was also active within the BAAS, although geography does not appear as a separate section (E) until 1851 when Murchison became its first president (Howarth 1922: 84, 284). The Geological Survey memoirs and

detailed explanations of the geology to be found on a single sheet of the British Geological Survey 1:50,000 map series continue to be published today as developments in the subject lead to revisions.

In addition to disciplinary surveys, Edwards has explored the more general photographic survey movement between 1885 and 1918 which had sought to record “England’s visible past [and to] comprise the antiquities, ancient buildings, and customs of Britain” (Edwards, E. 2012: 2). This movement used the large network of amateur photographers, many of whom were associated with local photographic societies, to compile, principally, county surveys. County photographic surveys were, also, promoted to the Corresponding Societies of the BAAS at its York meeting in 1906 (Harrison, W.J. 1907).⁸⁹ In his address to this meeting Harrison noted that:

“It was becoming more and more desirable to obtain a permanent representation of the interesting features of our country, whether natural or the work of man; for at no former period had the destruction or mutilation of such features been more rife, and never before had so much interest been taken in their preservation.” (Harrison, W.J. 1907: 57)

He also emphasised that “changes due to natural agencies, such as the encroachment of the sea upon our coasts” should not be overlooked (Harrison, W.J. 1907: 57). Harrison had been instrumental in the founding of the National Photographic Record Association (Sheppard 1908; Jay, B. 1987) but is also acknowledged as an innovator in the application of field photography in geology (Bobette 2013). Harrison’s *Sketch of geology of Leicestershire and*

⁸⁹ William Jerome Harrison FGS, (1845-1908), geologist, science writer, and amateur photographer, wrote textbooks on chemistry, physics, photography, and geology.

Rutland, published in 1877 is thought to be the first occurrence in print of field geological photographs and he expounded on the necessity of acquiring “a pair of geological eyes”, a process which would include “much walking” (Harrison, W.J. 1878: 9–10).

From geology to the newly emerging field sciences of ecology and geography the development of a specific disciplinary way of viewing the natural world was, thus, occurring in tandem with the developments in photographic technology in the late nineteenth century. This led to the evolution of subject specific photographic vernaculars as defined by Edwards (Kaplan *et al.* 2000: 230) and which I am exploring in the geographical context throughout this thesis. Herbertson, in his role as editor of the Geographical Association’s journal, also urged the branches to “undertake a local photographic survey” in order that “views and lantern slides of selected types” might be published (Anon. 1912: 188). By 1920, the Durham branch was able to report that it had “made a photographic survey of vanishing data, from which a set of lantern slides has been prepared”, and this elicited the comment that “this seems a valuable suggestion of possible work for geographers everywhere” (Anon. 1921: 44).

Mill commented on Herbertson’s contribution to geography in his 1921 Herbertson Memorial Lecture to the Geographical Association when he asserted that “one of Herbertson’s more notable services to geography in this country [was] his insistence on regional study, laying stress on the association

of the facts of geography with the diverse conditions of a particular portion of the land surface” (Mill 1921: 9). Part of the evidence for this insistence is the archive of Oxford diploma students’ work.

6.2 Archive of student regional descriptions

Of the 408 students who studied for the diploma between 1906 and 1939, the archive contains 255 of their submitted regional descriptions, although not all have their accompanying illustrative material present within the archive. However, 180, or just over 44% of a possible total, do and an analysis of the sources used by those students to procure illustrative material will enable me to explore the reception of the geographical knowledge they were introduced to in Oxford. Scrutiny of the use of this material will also enable me to consider the development of the students’ ‘eye for country’ and thus investigate the context of the material in this archive.



Fig. 6.1 Part of descriptions archive (© S.C. Squibb, Jan. 2019).

Of the 40 descriptions in the archive for the period 1906–1910 only two contain their illustrative material and the bulk of the illustrative material survives from 1911. The students would either incorporate their illustrations into the text or produce a separate folder of this material (Figs. 6.2a, b).

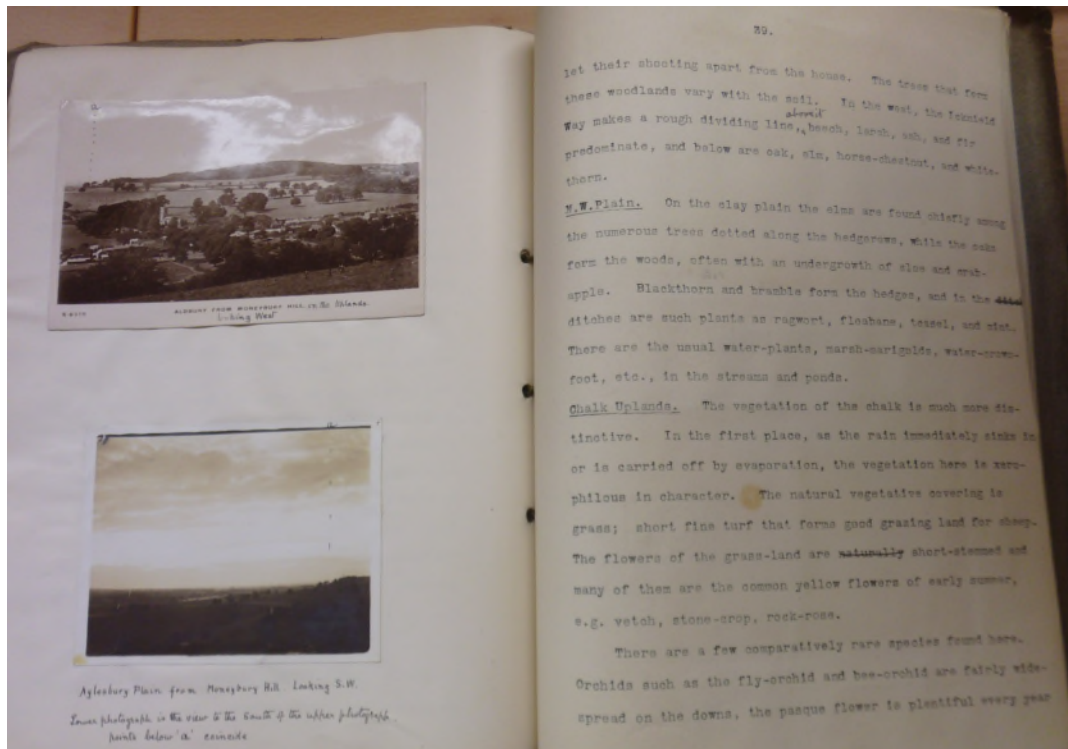


Fig. 6.2a Illustrations incorporated into text (© S.C. Squibb, Oct. 2019)
 [Gladys Maud Marten, 1878–1955, diploma with distinction 1912, description
 35]

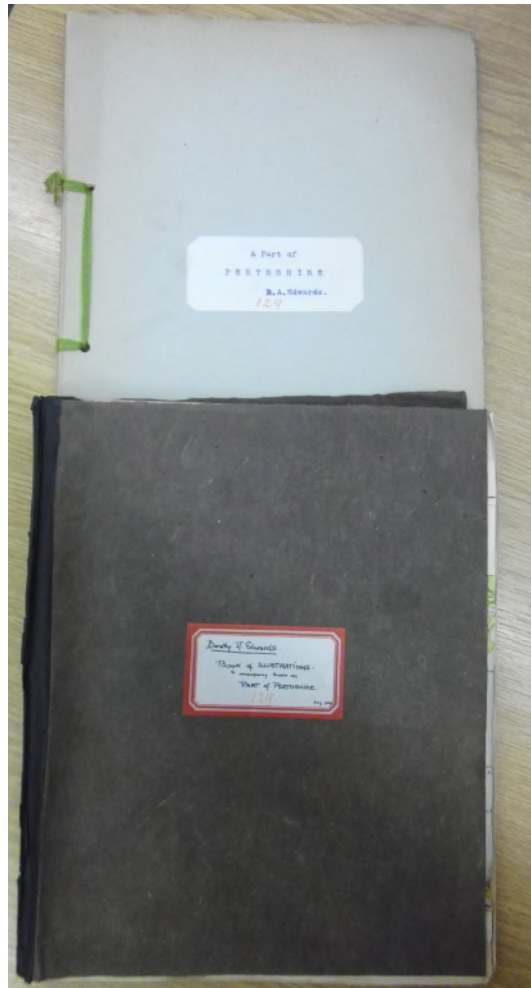


Fig. 6.2b Illustrations submitted in separate folder (© S.C. Squibb, Oct. 2019)
 [Dorothy Agnes Edwards, 1893–1990, diploma 1922, description 129]

As can be seen from Table 6.1 the predominant sources for the illustrations were photographs taken by the students themselves, and pictorial, or view, postcards. These sources will be considered in turn as will a discussion of the presence of field sketches.

Table 6.1 Breakdown of student illustrative sources

Descriptions	Total ills.	Maps	Diagrams	Postcard local	Postcard national	Published material	Commercial photograph	Personal photograph	Sketch	Other
180	11,035	954	1,561	2,360	849	639	192	4,267	189	24
%		8.6	14	21.3	7.7	5.8	1.7	39	1.7	0.2

The category 'Other' was formulated to cover the small number of items such as fabric swatches (included in Agnes Clara Booth's (1888–1975, diploma with distinction 1922, description 111) discussion of the textile industries of north Essex) and samples of hand-made buttons (in Gladys Boyd Hurry's (1896–1974, diploma 1918, description 142) reporting on the revival of a local handicraft). Another student, Edith Muriel Blackburn (1901–1970, diploma 1922, description 202), inserted pressed botanical specimens into the discussion of the natural vegetation of her region. In all cases these objects are additional to the text and extend the other modes of visualization present. One remarkable survival also included in this category is a 3D-coloured relief model constructed from straw-board and plaster of Paris, size 41.5 x 37.5 x 1.5 cm. (Figs. 6.3a, b).⁹⁰

⁹⁰ Oxford English Dictionary definition: coarse yellow millboard made from straw pulp, used for making boxes, book-covers, etc.; it was cheap but liable to warp.



Fig. 6.3a 3D relief model to accompany description 237
(© S.C. Squibb, Dec. 2023)

[Mary Ellen Baron (Mariel) Russell, 1905–1989, diploma with distinction
1925]

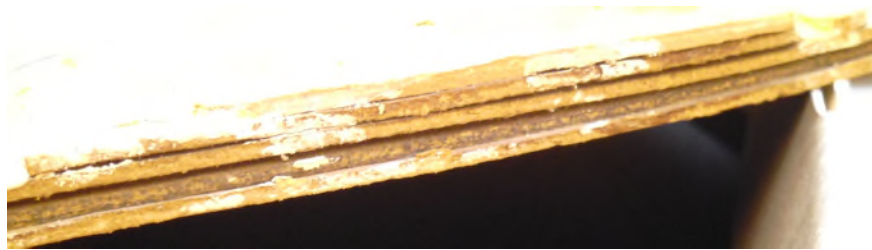


Fig. 6.3b Detail of construction of relief model (© S.C. Squibb, Dec. 2023)

6.3 Geographical models

A number of articles within *Geographical Teacher* give detailed instructions for the construction of such models in the classroom. These include how to ‘smooth’, using plasticine or plaster of Paris, the resulting image if layers, of thin wood, cardboard or Bristol board, were used to represent the contour intervals, which if left would give an unnatural stepped appearance to the landscape (Maginnis 1910: 265; Kendall, P.F. 1904: 159). In her description Mabel Mary Barker included her photographs of a plaster

relief model made at the Friends School, Saffron Walden and a “model made at the Training College, 1911, by students, coloured plasticine to represent drift geology” of 20 square miles around Saffron Walden (Barker, M.M. 1913: 15). Whilst another student referred to the possibility of constructing such a model as in a note attached to parts of a 1" map she states “I thought models of these 2 areas on layer system which I think lends itself to modelling up best” (May Hockley (1877–1966, diploma 1908, description 21, unpagged). However, it is unknown whether Miss Hockley constructed her intended models.

Modelling, such as this, was regarded as a valuable tool in the geography teacher’s repertoire, in particular within elementary education (Catty 1917). During the 1910 Oxford Summer School for Geography Teachers J.A. McMichael gave a lecture on modelling within the section devoted to apparatus and the teaching of elementary geography, having previously donated a model of the Chester district to the School in September 1908 (University of Oxford Archives, GE 7/4).⁹¹ Ploszajska in her review of the use of models, suggested that they assisted in enabling pupils to “think geographically” by presenting them with a visual perspective of a region (Ploszajska 1996: 388).

⁹¹ John Alfred McMichael (1863–1953) head and senior science master City and County School, Chester, 1893–1911 (formerly Chester School of Science and Art and Technical Day School); H.M. Inspector of Schools (Secondary branch) 1911–1927; obituary *Cheshire Observer*, 14th Nov. 1953 p. 16, col. 3.

Herbertson further suggested that a “collection of models is highly desirable” for a university department of geography (Herbertson 1902a: 131), a point which illustrates Tobin *et al.*’s (2024) review of the use of models in the history of geography. To demonstrate this, the Oxford School of Geography acquired a number of models from 1901 when the Professor of Geology at Oxford, W.J. Sollas, presented the School with a geological model of Mount Etna (University of Oxford Archives, GE 7/1) which is now located within the Oxford History of Science Museum’s collections

{<https://www.hsm.ox.ac.uk/collections-online#/item/hsm-catalogue-15299>}.

Also, now within the History of Science Museum’s collection, is another model from the School of Geography — Model of Alps relief d. Alpenlander which cost £2 in 1903 (University of Oxford Archives, GE 7/2;

{<https://www.hsm.ox.ac.uk/collections-online#/item/hsm-catalogue-16533>}.

Not only was this an expensive item, Mackinder’s textbook, *Britain and the British seas*, published in 1902 cost 7/6d and Herbertson’s own textbook *Commercial geography of the world outside the British Isles*, published in 1903 cost 2/6d, but the physical dimensions of such three-dimensional models meant that storage could be problematic. The model of the Alps is 90mm x 725mm x 592 mm and in the previous chapter I referred to the model illustrating the flow of a glacier constructed by Ogilvie in 1912, the dimensions of which are 235mm x 755mm x 875mm and which weighs 15.5kg — a further factor to be borne in mind when storing.

The above discussion amplifies the use of models in the history of geography in relation to a single university department. The contour model, as shown by Russell's model, gave a bird's eye overview of the landscape which could be augmented by other visuals such as sketches executed in the field.

6.4 Field Sketches

The students had been exposed to examples of field sketching in the lantern slides of Collingwood's alpine images, one of which had been annotated (Fig. 6.4). Collingwood's advocacy of field sketching was elaborated upon in chapter 4.4. Although field sketches represent only 2% of the illustrative material they were used to emphasise particular features of the terrain, such as Dorothy Agnes Edwards (1893–1990, diploma 1922, description 129) providing a pen and ink sketch of the “River terraces on the Earn at Kinkell bridge” annotated to highlight those terraces, where other forms of re-presentation of the landscape such as personal photographs or commercial postcards did not make the geographical point sufficiently explicit (Fig. 6.5; Edwards, D.A. 1922: 11).

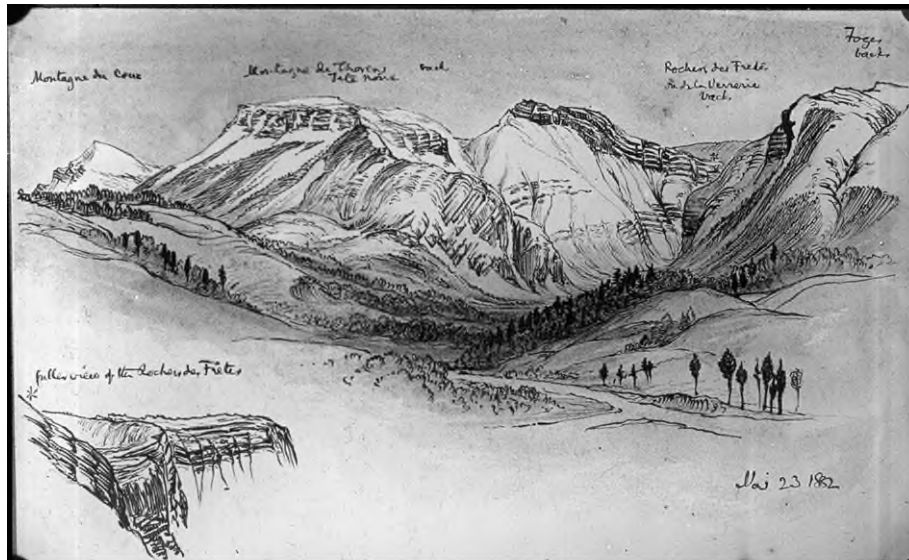


Fig. 6.4 Slide of Collingwood sketch in the Oxford Teaching Collection catalogue number 380.83; HEIR ID 80419. (Reproduced from HEIR with the permission of the Geography Collections, Social Sciences Library, University of Oxford.)

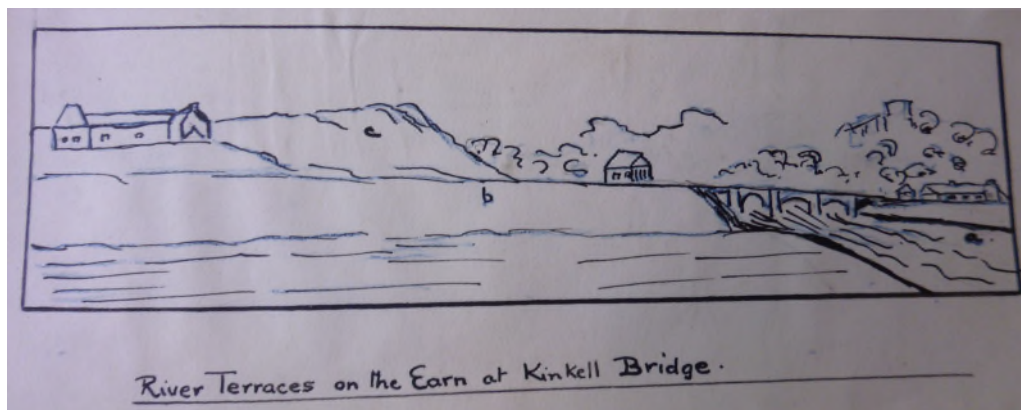


Fig. 6.5 Annotated field sketch (fig. 42) to accompany description 129 (© S.C. Squibb, Oct. 2019)

This method of enhancing the information present in a field sketch is demonstrated by Russell throughout her separate book of illustrations (Fig. 6.6). Russell also demonstrates the use of the sketch map and diagram when she discusses the effect of the landscape on the duration of rainfall events (Fig. 6.7; Russell, M. 1925: 53–54).

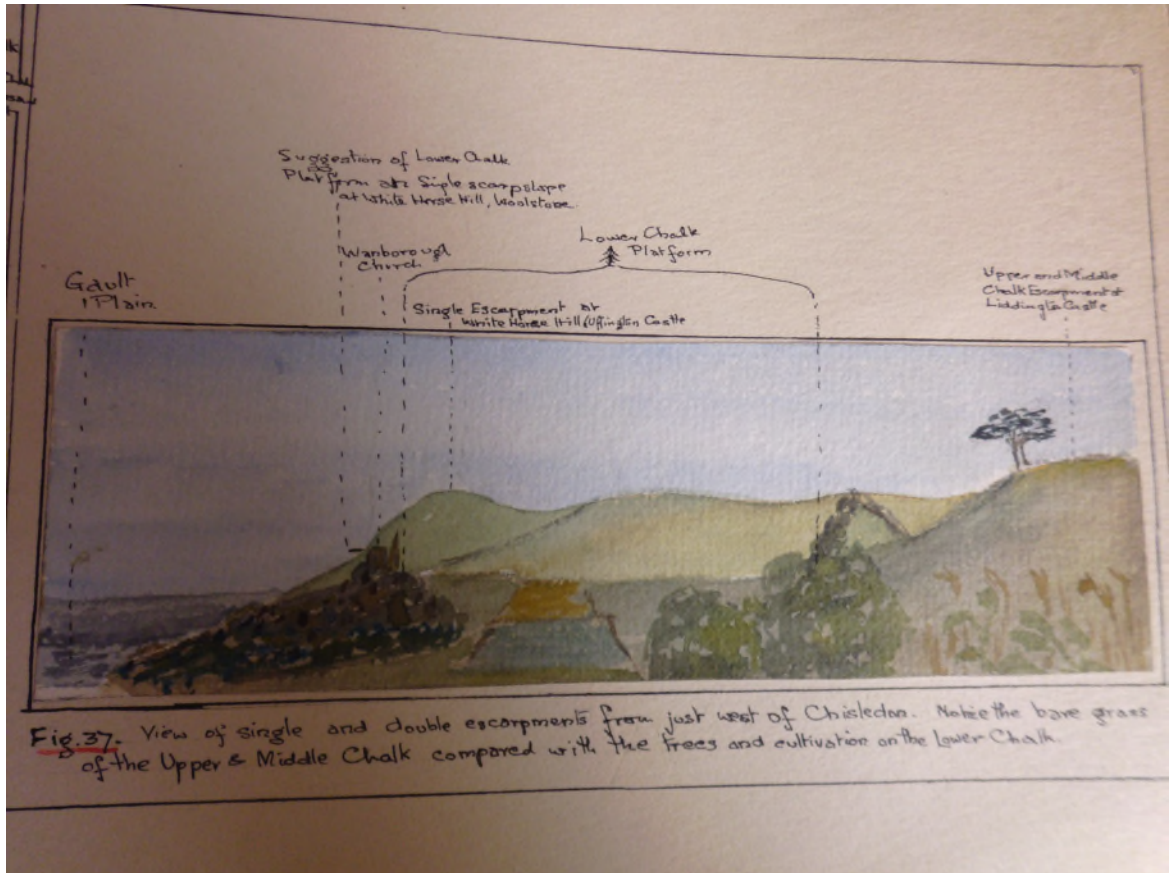


Fig. 6.6 Annotated field sketch (fig. 37) to accompany description 237
 (© S.C. Squibb, Dec. 2023)

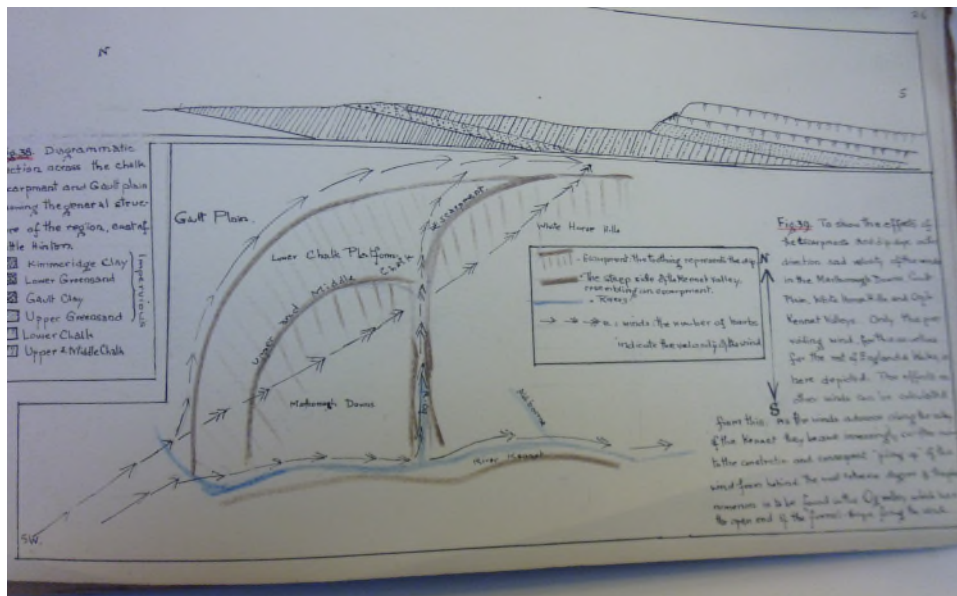


Fig. 6.7 Annotated sketch map (fig 39) to accompany description 237
 (© S.C. Squibb, Dec. 2023)

Some students used multiple modes of visualization of the same landscape to enable them to emphasise different elements of the topography, e.g. Joyce Theodora Margaret Biggar (1908–1993, diploma 1933, description 298) presenting both a photograph and a field sketch of Potterland Lane, Dumfries and Galloway, Scotland (Figs. 6.8a, b; Biggar 1933: 14, 31).

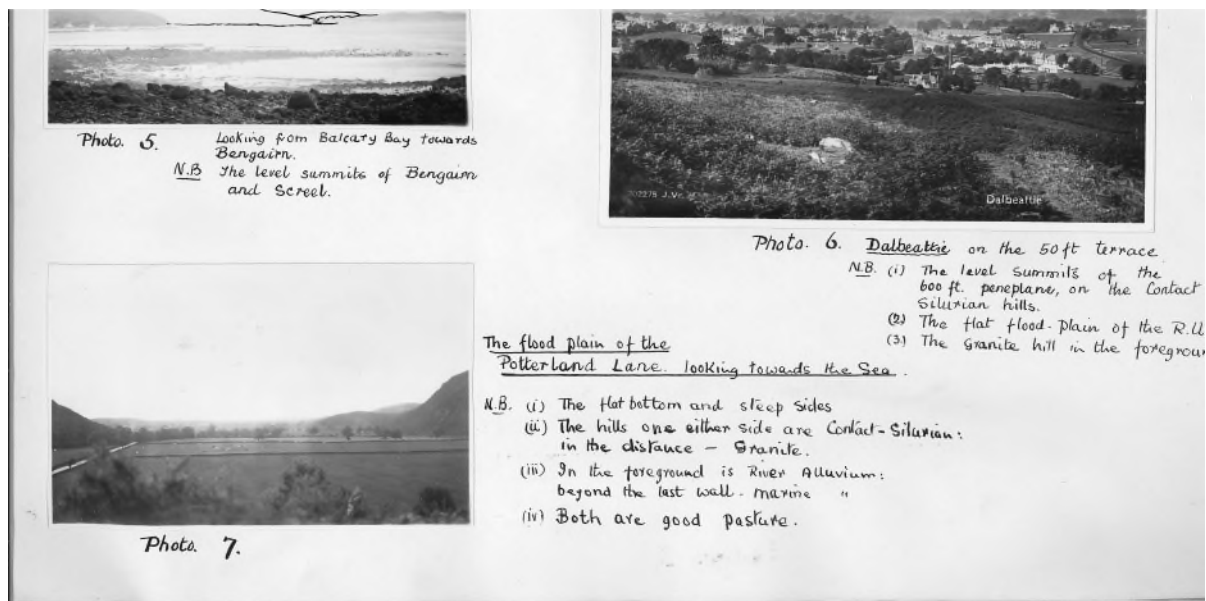


Fig. 6.8a Personal photograph with textual notes (photo 7) to accompany description 298 (© S.C. Squibb, May 2023)

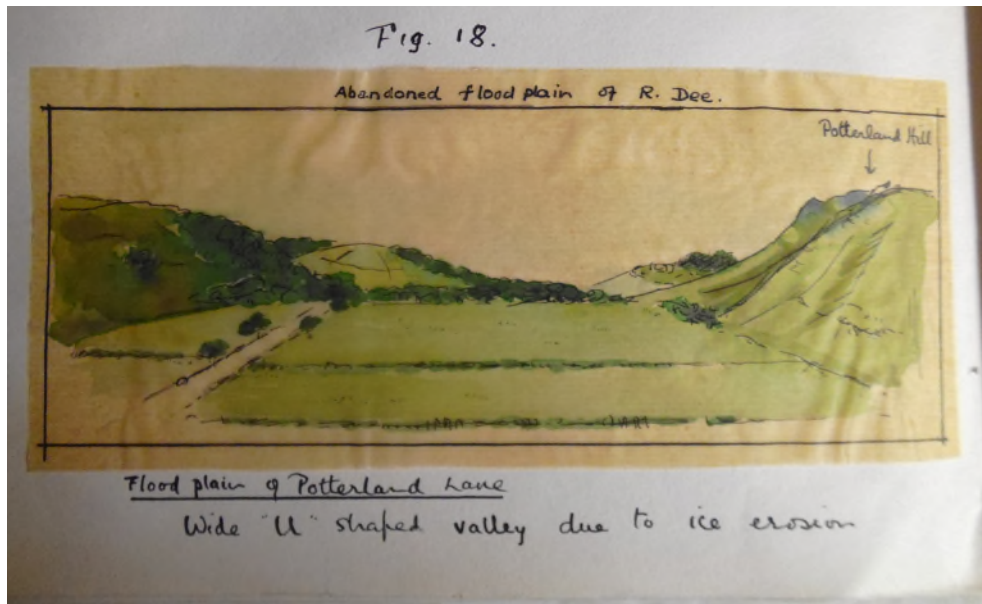
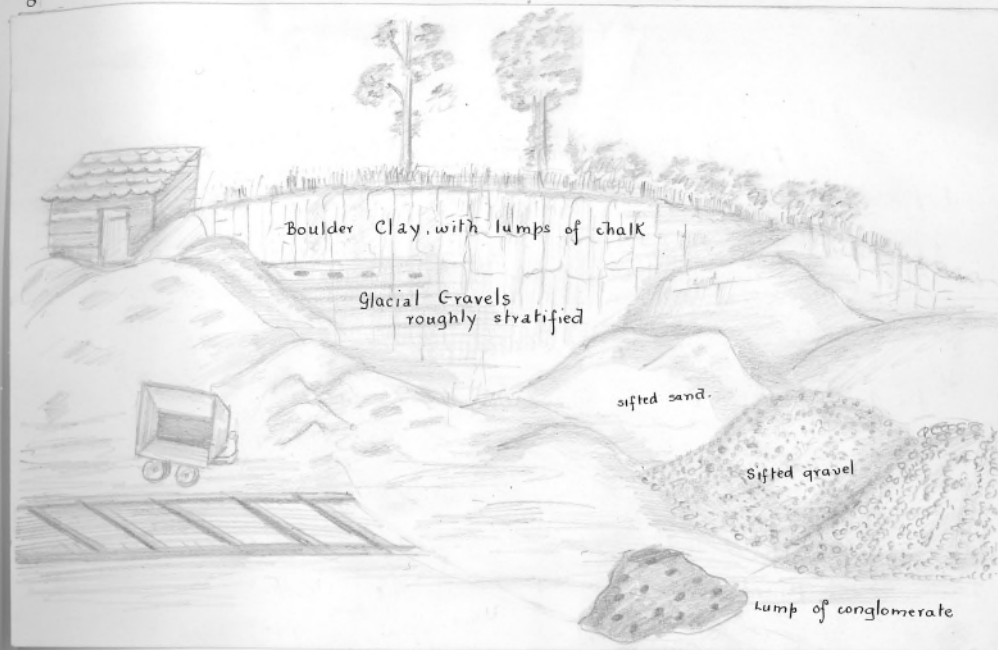


Fig. 6.8b Annotated field sketch (fig. 18) to accompany description 298
(© S.C. Squibb, May 2023)

Agnes Clara Booth (1888–1975, diploma with distinction 1922, description 111) also used multiple modes of visualization when discussing the geology and extraction industries of north Essex but was able to extend her understanding of the topography in her photograph when she commented on the agriculture visible in the growing crop (Fig. 6.9; Booth 1922: 5a).

Fig. 11



Sketch of brick-pit near Coggeshall.

Fig. 12.



Photo of same - beans growing to the edge.

Fig. 6.9 Annotated field sketch and photograph (figs 11 & 12) to accompany description 111 (© S.C. Squibb, April 2023)

However, sketching, more broadly, was an art form that was also permissible as a suitable accomplishment for women who wished to be regarded as 'genteel' (Stankiewicz 1999). In the words of one nineteenth-century writer, "a taste for drawing heightens the admiration of nature by enforcing a closer examination of her exquisite workmanship" (Sigourney

1834: 37). It was considered that “drawing represented ‘seeing correctly and thinking profoundly’” (Johns 1980: 147).

Russell and Biggar both attended boarding schools for girls in their teenage years where the art of watercolour painting would be incorporated into the curriculum as a perceived appropriate accomplishment for a middle-class female. Russell’s father is regarded as being the earliest advertising consultant in Britain (Watson 1973) and Biggar’s father was a seed merchant in his own business (biographical details available in Appendix 3). Edwards attended George Watson’s Ladies’ College in Edinburgh, an establishment similarly aimed at the middle-class, before entering Edinburgh University in 1911. Whilst Booth’s schooling is unknown it is recorded in the 1911 census that she was an elementary teacher in Willesden, London.

However, the majority of students relied solely on photographic imagery for their illustrative material and more than 55% of this type of imagery was derived from the students’ own photographs.

6.5 Personal Photography

In chapter 2.11, I discussed Edward’s development of the concept of vernacular photography into one of a disciplinary vernacular and have previously shown, in chapter 5.10, how this emerged within the Oxford School of Geography with the use by the academics of their own photographs of specific geographical features re-purposed as lantern slides for their lectures. Here, I show how the Oxford students demonstrated their

understanding of this aspect of geographical visualization by producing their own photographs to illustrate their regional descriptions. In 1895, Mill had defined a geographical picture as “one that is both characteristic and representative of a special region, taking account either of the land-forms, the vegetation, commercial products, dwellings, means of transport, or the people of the country” (Anon. 1895c: 166). Apart from rarely showing the people, the students demonstrated their ability to both take and use geographical images in their regional descriptions.

In the period under consideration, 1906–1939, the camera became an increasingly available and accessible piece of equipment to both the amateur and professional with which to record what was observed. The development of roll film cameras during the last decade of the nineteenth century was a major factor in this accessibility. However, the increasing range of cameras available also meant that the students’ income and interest and ability in the technology played a part in their use of the photographic image in their regional descriptions. This is partially evidenced in the size of photographic print they included. The most common size is either 8 x 6 cm or 10 x 8 cm but sizes range from 6 x 4 cm, possibly produced by using a pocket camera, up to 20 x 15 cm.

The only evidence for the type of camera used occurs in an image included by Fedelma Nora Donnelly (1906–1994, diploma 1936, description 305) in which other members of her family are seen as well as the modes of

transport used to access the location (Fig. 6.10; Donnelly 1936: 7). The print size is 20 x 15 cm which contrasts with that of 8 x 6 cm used by Mary Hepple Dickinson (1905–2002, diploma 1932, description 294) who used a bicycle to travel within her region (Fig. 6.11; Dickinson, M.H. 1932: 30). As Robert Walter Steel (1915–1997, B.A. 1937) noted in his reflections on the Oxford School of Geography “the conscientious geographer spent many weeks in the selected area, acquiring considerable local knowledge usually through extensive travel by bicycle” (Steel 1987: 72). Gilbert, in discussing Herbertson’s contribution to geography, also noted the value of the bicycle as a mode of transport for field work when he reported the recollections of early students saying that Herbertson had “a flair for practical work in the field” and was “extremely interesting on the cycle rides he used to take us on” (Gilbert 1965: 328). Already, by the turn of the twentieth century Carter was asserting that “the camera and the bicycle go everywhere hand in hand” (Carter 1901: 27).



Fig. 6.10 Personal photograph (1K: The Military Road near Lough Bray) to accompany description 305 (© S.C. Squibb, May 2023)



Fig. 6.11 Personal photograph to accompany description 294
(© S.C. Squibb, May 2023)

Although I do not address this specifically in this chapter, Fig. 6.11 also demonstrates the value of looking carefully at road, or railway, cuttings where the geological sequence is exposed. This was considered by Tucker in relation to the BAAS (Tucker 2014: 200–202) and is exemplified by the inclusion of one such image in the Oxford teaching slide collection (Teaching collection catalogue number E.45; HEIR ID 51125).

One aspect of the acceptance of the photograph as a means of representing the landscape was the belief that photography, because of its reliance on technology, gave an accurate portrayal of the view in front of the lens. I touched on this belief in both the introduction and chapter 2.7. As Tagg

has noted there was a “privilege attached to mechanical means in industrial societies” (Tagg, J. 1993: 61) which lent the photograph an authority to be regarded as a ‘record of reality’ and therefore as accurate evidence of what had been observed by the operator of the camera. This has been described as “mechanical objectivity” by Daston and Galison (2007: ch. 3). Again, in the publisher’s summary of Tagg’s 2008 book, *The disciplinary frame*, it is asserted that “photography can seem to capture reality and the eye like no other medium, commanding belief and wielding the power of proof” <https://www.upress.umn.edu/book-division/books/the-disciplinary-frame> }.

However, there could be difficulties in obtaining a truly accurate representation of the landscape by means of a photograph.

These were highlighted by several students, e.g. Basil Westcott Lee (1908–1955, diploma 1931, description 289) “the foreground which looks quite level, is really a long steep hill, but the camera had to be pointed downwards so as to include the floor of the valley, and so the flat effect was produced” (Lee, B.W. 1931: part 2, 6). Similarly, Arthur Maitland Emmet (1908–2001, diploma 1932, description 293) noted that an “aerial view looking down on the chalk scarp, owing to foreshortening the steep rise does not appear” (Emmet 1932: part 2, unpagged, [leaf 29]).

Occasionally students would comment on their disappointment with the results of their photography, e.g. “a somewhat unsuccessful attempt to show the site of the village of Fulbeck” (Lee, B.W. 1931: part 2, 9b). Hockley’s

strictures on her photographic ability are discussed below. However, others were sufficiently assured in their capabilities that they produced their own postcards, e.g. Stanley James Rendell (1899–1995, diploma 1928, description 263). Many students, like Rendell, included both their own photographs and commercial postcards in their illustrative material but some, e.g. Dorothy Agnes Edwards, relied solely on postcards for their imagery. One factor in this reliance on the view postcard could be attributed to the difference in cost. In 1912 a postcard could be bought for 1d {<https://www.tuckdbcatalogs.org/>}, whereas a Kodak Brownie camera cost 5/- and a roll film might be an additional 10d (Anon 1910c: 233, 255). In the 1920s the cost of a postcard had risen to 3d but cameras had also increased in price, by 1934 a basic Agfa camera cost £5 5/- although there was an increasing second-hand market (Anon. 1934: 20).

6.6 Picture Postcards

I discussed the value of the postcard as a research tool in chapter 2.10 and here I consider its contemporary role at the beginning of the twentieth century. Developments in the provision of education for all children in the later nineteenth century, following the 1870 Education Act, meant that a significantly larger proportion of the population was able to read and write. There was, also in this period and during the early twentieth century, legislation which provided for public and bank holidays for workers and regulation of working hours, including half day working in shops. The result

of these acts and the growth of the railways, and later bus routes, meant that many more people were able to travel for leisure.

Taken together with the developments in photographic technology this meant that there was a considerable market for one of these developments — the picture postcard. The acceptance by the Post Office in 1894 that one side of a postcard could be devoted entirely to the reproduction of an image, by which they relinquished their monopoly on the production of postcards, but more particularly the introduction of the ‘divided back’ in 1902 which loosened the restrictions on the amount and the placing of written communications by the sender fuelled what has been termed the ‘Golden Age’ of the postcard (Guynn 2008; James, K. *et al.* 2019).

A further development, in 1903, came with the introduction by Kodak Eastman of a camera using film with a negative size of the postcard, 8.5 x 13.5 cm, meaning that the developed image could be printed directly onto a postcard. This, in turn, gave rise to the ‘real photo postcard’, (RPPC), whereby a continuous-tone photographic image was printed on postcard stock thus making a distinction between this process and the lithographic or offset printing processes more frequently employed. As such, it allowed local photographers to enter the postcard market, producing unique images quickly and often in limited print runs (Hatfield 2018: 4–7). However, some national publishers, such as W.H. Smith and their Kingsway Series, operational between 1906 and 1938, also used this process. As noted in Table 6.1 it is the

local postcard producer who provides nearly three quarters of the postcard images present in the students' descriptions.

The lack of finance to purchase their own cameras to record the places visited meant that visitors and tourists relied on the local photographer to create postcard imagery which they could either collect as a souvenir or send for 1/2d (halfpenny) to friends and relatives (Rogan 2005). This market enabled the local photographer to produce postcards of images of what could now be considered the 'mundane'. As such, many images were produced of village greens, local roads with petrol pumps, railway stations, etc., a feature that made them extremely useful to geography students studying a small area of the country. Over time the postcard industry was reduced to fewer and larger national companies, such as Judges of Hastings, Valentines of Dundee and Friths of Reigate, who then concentrated on the more commercial views of known tourist sites and principal buildings such as churches, country houses and town halls. Commercial photographers would also be able to visit a locality in favourable weather conditions, something which was not always possible for either the visitor or the student.

Gillen (2016; 2017) has reframed picture postcards as the Edwardian equivalent of modern social media. Other researchers have similarly made such transhistorical comparisons (O'Hagan 2023; Tagg, C. and Evans 2020). Some students exemplify such assertions by their use of contemporaneous local postcards of extreme weather events, e.g. Vera Katherine Isaac (1891–

1979, diploma 1913, description 29) using two postcards produced by the Seaford photographer, Walter Robert Wynter, depicting the impacts of the late March 1913 storm. She elaborates on the caption printed on the card by Wynter, (Storm at Seaford Easter 1913: The damaged Buckle Rd.) by adding specific geographical observations viz: “Results of storm, Easter 1913: Lowlying ground behind Seaford sea wall — old course of Ouse – was flooded” and “Results of storm, Easter 1913: Main road to Brighton underwater at lowest point — where it crosses old valley” (Isaac 1913: 24). Dorothy Agnes Edwards also used local postcards, which she cropped for added emphasis, to illustrate recent extreme cold when she included “The Tay frozen at Perth January 15th 1918” (Edwards, D.A. 1922: figs. 38, 39; 18–19; appendix I). In this she was updating the image in the Oxford Geography teaching collection of lantern slides which showed “On the frozen Tay at Perth, Feb 1895” from the local photographer Magnus Jackson (Figs. 6.12a, 6.12b).



Fig. 6.12a



Fig. 6.12b

Fig. 6.12a Cropped local postcard (fig. 38) to accompany description 129 (© S.C. Squibb, Oct. 2019)

Fig. 6.12b On the frozen Tay, Perth 1895; Oxford Teaching Collection catalogue number 240.37; HEIR ID 51484. (Reproduced from HEIR with the permission of the Geography Collections, Social Sciences Library, University of Oxford.)

Other iterations of what Prochaska and Mendelson have termed the ‘ephemeral history of modernity’ (Prochaska and Mendelson 2010) included the depiction of new roads and housing estates. As Johnston noted “postcards of this type usually featured private sector housing but in the 1920s and 1930s it was not unusual to have postcards of council housing” (Johnston, M. 2017: 21). Again, several students, notably Conrad Eckstein Miller-Brown (1905–1993, diploma 1929, description 271), who used local postcards, and Reginald Ernest Head (1901–1974, diploma 1935, description 304), who took his own photographs of these features, made reference in their discussions of population increases and communications to new housing and road improvement schemes, such as by-passes. Stanley James Rendell used locally produced postcards, rather than his own, to discuss this aspect of human

geography including one which showed “Council Houses, Albury”. In relation to this postcard he commented that “the Rural District Council has relieved the housing problem by erecting 2 or 3 houses of this type in almost every village” (Rendell 1928: fig.69b). The proximity of Rendell’s chosen area to London meant that he could also comment on the inter-war suburban growth of “typical new building estates” which were “chiefly occupied by workers in the metropolis” whilst noting that “such building estates are everywhere except in the N. & E. [of his region] where there are only very poor railway facilities” (Rendell 1928: figs. 45a, 53a and 68b; 65–66). Rosamund Carus (1905–1989, diploma 1928, description 254) used a postcard of “Belmont Avenue, Ribbleton, Preston” from the Preston ‘dealer in postcards’ and ‘wholesale stationer’ Arthur John Evans to discuss the “new subsidy houses and good roads of the outskirts of Preston” (Carus 1928: P9a). Arthur Maitland Emmet used commercial aerial photographs, further discussed below, to comment on the “congested old town” of Faversham, and “disorderly old town” of Whitstable, both in stark contrast to the “more open modern additions” of Faversham and the “carefully planned modern streets” at Whitstable (Emmet 1932: part 2, unpagged, [leaf 11, 12;]; part 1, 10).

6.7 The Picturesque View Postcard

Krauss has discussed the disjunct that had arisen between the perception of the topographic photograph as a ‘landscape’ within art history and as a ‘view’ within empirical science (Krauss 1982). Ryan has, also, drawn attention

to the distinction between the ‘landscape’ in art and the ‘view’ in science as it applied to geographical photography (Ryan 2005: 221). The different interpretations that can be placed on the same image, previously discussed in relation to the lantern slides in the Oxford geography teaching collection, is also evident within the students’ use of postcards.

This is particularly relevant when the postcard depicts a scene which the publisher describes as ‘picturesque’. Within the history of art, the term ‘picturesque’ developed as a portrayal of a natural landscape that was positioned between the ‘sublime’, which was intended to provoke strong emotions due to the awe-inspiring aspect of, for example, a mountainous landscape, and the ‘beautiful’, which portrayed nature in a more serene or tranquil mode. I briefly discussed the origins of these terms in chapter 2.8. However, from the introduction of the term in the late eighteenth century to its use in the early twentieth century the term moved from being associated solely with landscape art, appreciated by an elite, to a more generalised ‘commodified’ term “well adapted to mass culture, mechanical reproduction, and modern consumer habits” (Freeman, A.L. 2015: 230). As Peterson has asserted:

“Over the course of decades of usage, the picturesque became a popular style, a mass-culture shorthand for anything visually pleasing. Through increasing commercialization, the aesthetic lost any edge of rigorous associationism and elitist connoisseurship and came to stand for all that was tame and unchallenging.” (Peterson 2013: 194)

There were still echoes of the ‘sublime’ in the postcard that Edith Frances Peto (1883–1967, diploma 1917, description 173) used in her

discussion of the geology of Wharfedale. The postcard was published in 1914 by Judges Ltd of Hastings, Sussex, a firm which had expanded to become a national company by 1910 (<https://www.sussexpostcards.info/>). The caption supplied by the firm was “The wild wild moors, Ilkley”, a phrase which echoed the title of a poem by Edwin Waugh published in 1889.⁹² Peto, however, was looking with an ‘eye for country’ and considering the geographical features present in the image. As such she captions the image “mountain stream on northern scarp of Rumbald’s Moor showing waterfall formed over the harder bed of millstone grit & gentler course over alternating beds of shale” (Peto 1917: 10).

The more tranquil landscape form was reflected in the postcard used by Clara Margery Lawrence (1899–1974, diploma 1922, description 99) from the Keswick firm of G.P. Abraham Ltd. Again, the publisher’s caption (“A peaceful prospect; head of Derwentwater”) is ignored in preference for a more practical approach to the imagery as Lawrence’s caption states that this photograph is “Showing Borrowdale volcanic rocks on the left and Skiddaw slates on the right” (Lawrence 1922: part 2, photo 31; part 1, 20a). Lawrence also uses a postcard from another Keswick firm, that of Pettitt, which is simply captioned “Angle Tarn”. Lawrence expands this in her caption “Showing outlet of Angle Tarn over a moraine dam in the left foreground” and by this she sheds light on

⁹² ‘Oh, the wild, wild moors’, Waugh, E. (1889) *Poems and Songs. (Second Series)*. Oldham: W. E. Clegg, 36–37.

the probable use of this image by Oxford academics (Lawrence 1922: part 2, photo 26; part 1, 16). This image is also present in the Oxford Geography teaching collection, (220.157, HEIR ID 51432), as a lantern slide purchased from Flatters & Garnett in Manchester. However, apart from the title of “Angle Tarn and Bowfell”, there is no indication of the use of this image. It was purchased in February 1905 (University of Oxford Archives, GE 7/2) using the 1905 catalogue where it is simply listed on page 65 under “Section 53 Mountains, glaciers, etc., photographs, subsection: English Lake District” The firm of Pettitt was discussed earlier in chapter 4.9 with regard to the use, by the Oxford School of Geography, of British photographic studios.

The most notable publisher of picturesque postcards was the national firm of Raphael Tuck and Sons, Ltd. Within four years of the inception of their ‘Oilette’ series of artistic representations of the landscape in 1903 they had produced over 150 sets, each of six images, in their ‘Picturesque Counties’ series, in addition to nearly 600 sets of ‘views’ of individual locations {<https://www.tuckdbcatalogs.org/>}. In their catalogues the firm describe ‘Oilettes’ as “veritable miniature oil paintings” which they sourced from artists directly, such as H.B. Wimbush for their Whitby series.⁹³ They also collaborated with the publishing firm A. & C. Black to reuse illustrations from that firm’s *Beautiful Britain* series of books, such as *Yorkshire coast and*

⁹³ Henry Bowser Wimbush, 1858–1943, English landscape painter, book illustrator and postcard artist.

moorland scenes by Gordon Home for their “Picturesque Yorkshire” series. In this marketing of their postcards Tuck and Sons were commodifying the picturesque to a more vernacular interpretation for dissemination to a wider audience (Peterson 2013: 192).

Gladys Baines (1893–1960, diploma with distinction 1917, description 105) used five Tuck Oilette postcards from the series “Picturesque Yorkshire” (series no. 7557) and “Whitby” (series no. 7773). Whilst individual students had an artistic appreciation of the landscape, as evidenced by their field sketches, this appreciation was subsumed to the geographical ‘eye for the country’. To date only four references to scenery as being “picturesque” have been found in the student archive, e.g. as used by William Murray (1897–1969, diploma 1925, description 234) in the section on hydrology when he is discussing the River Hodder (Murray 1925: fig. 3.10). This does not dent the students’ appreciation of the picturesque but the need to be practical and prosaic and thereby demonstrate geographical knowledge overrode artistic sensibilities. In Miss Baines case this is evidenced by the annotations included on the face of the postcards (Fig. 6.13c) which goes against the more lyrical descriptions from the publisher (Figs. 6.13a, b).



Fig. 6.13a Original postcard, recto, available via <https://www.tuckdbpostcards.org>, accessed: 4 February 2024.

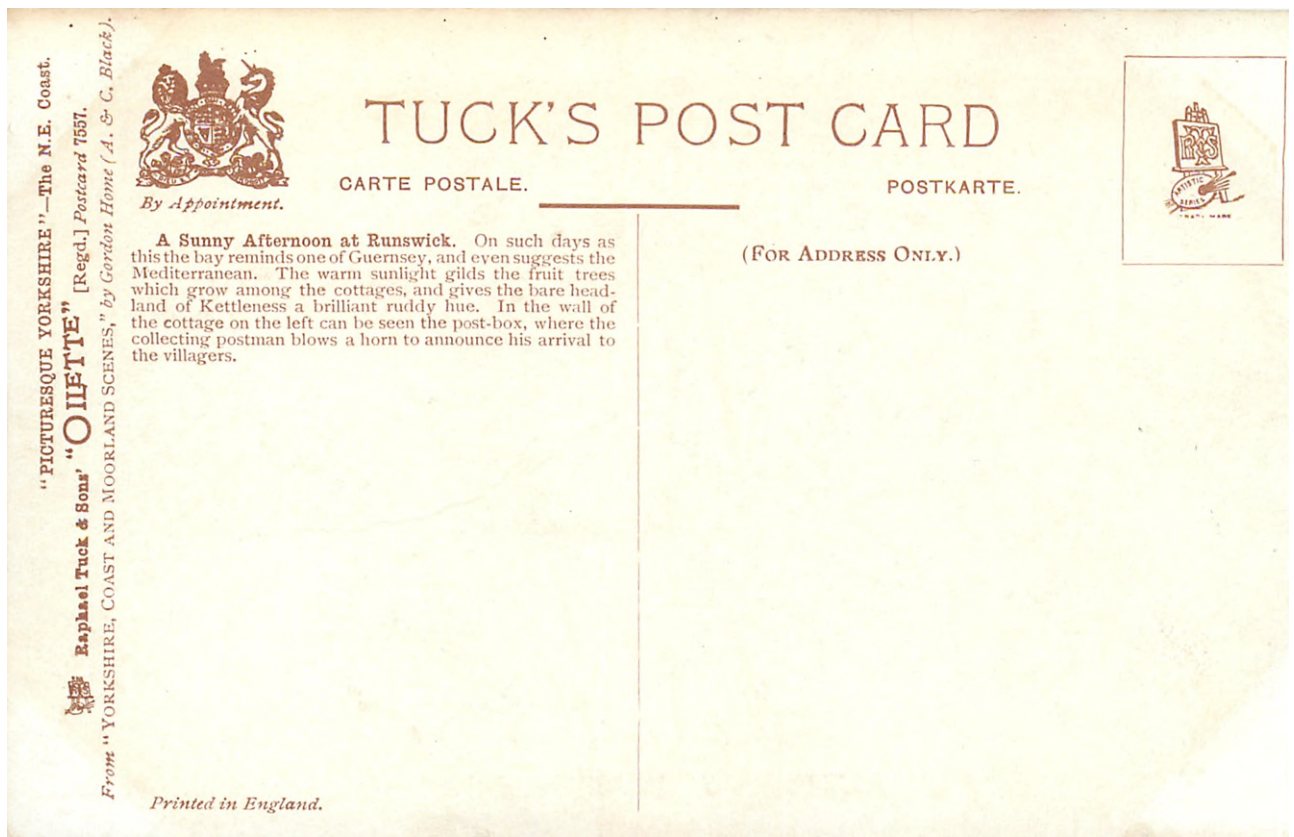


Fig. 6.13b Original postcard, verso, available via <https://www.tuckdbpostcards.org/>, accessed 4 February 2024.



Fig. 6.13c Annotated postcards (figs. x, xi) to accompany description 105
(© S.C. Squibb, April 2023)

6.8 Use of annotations and overlays

Baines demonstrates the use of annotations directly onto the face of the images she uses. This had been seen in the slides, available in the Oxford

Geography teaching collection, produced from the photographs of G.W. Palmer, as noted in chapter 5.9. Mary Cecilia Howell (1900-1984, diploma 1923, description 210) likewise extensively annotated commercial postcards to draw attention to a variety of geographical features both physical and human (Fig. 6.14; Howell 1923: figs. 10, 26; 14, 31).

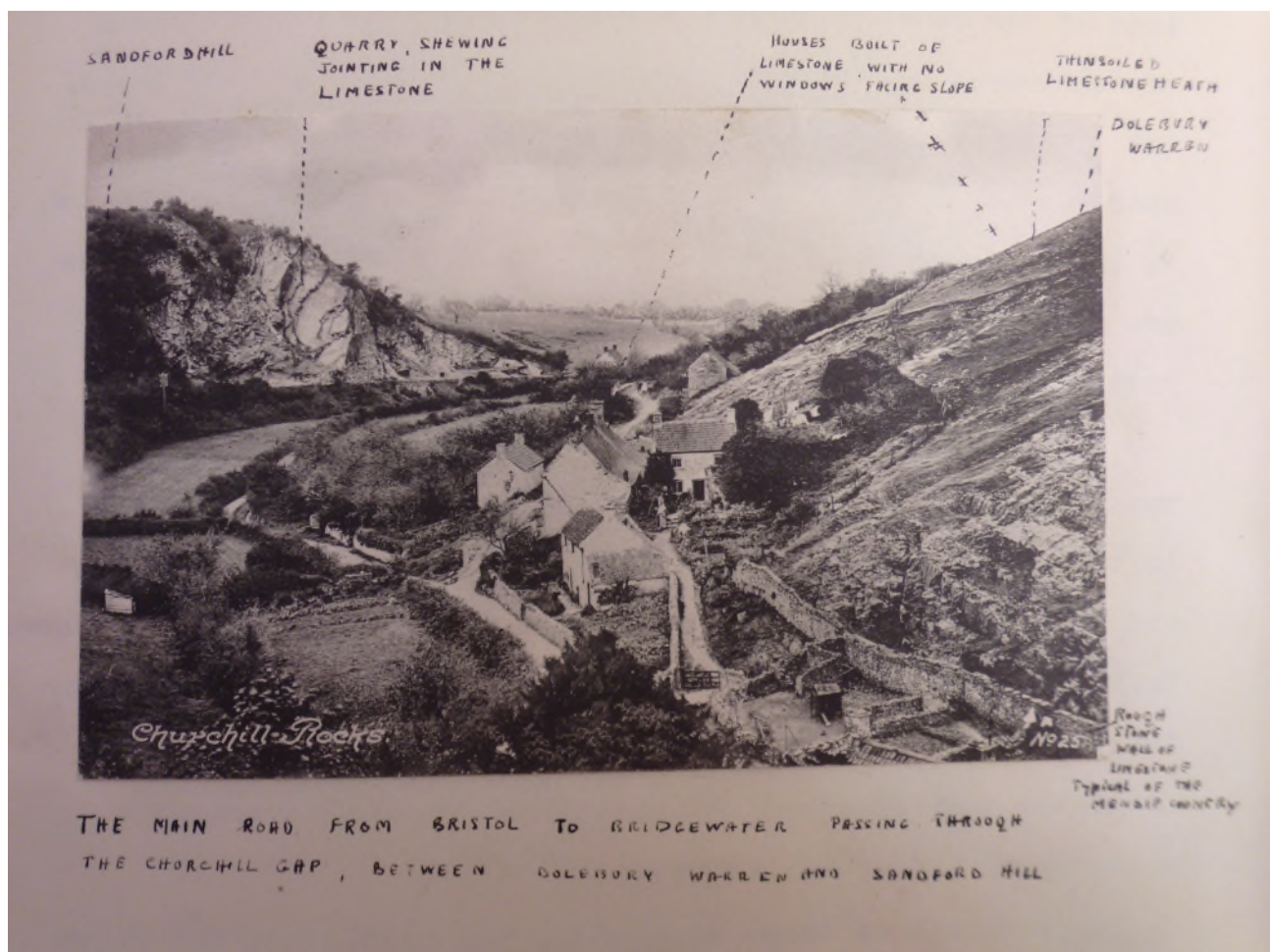


Fig. 6.14 Annotated postcard (fig. 26) to accompany description 210
(© S.C. Squibb, May 2023)

In her use of this single image Howell demonstrates her ‘eye for country’ by noting, not just physical geography features, such as the jointing in the exposed quarry face and the vegetation on the surrounding slopes, but

also the human response to the environment, including the use of the local stone as a building material, the adaptation of the vernacular architecture to the topography and the use of natural features to enable communications. She, therefore, epitomizes the pedagogical thinking of the Oxford School of Geography with its emphasis on the region in geography and the intertwining of the physical aspects with the human.

Rather than annotating directly onto the image, or its surround another method for both photographs and postcards was to provide a tracing paper overlay with the salient features marked. Florence Sarah Slatter (1901–1988, diploma 1921, description 180) used this method on her personal photographs of chalk pits in the south of Hampshire. For Evelyn May Graham Sandberg (1888–1961, diploma with distinction 1912, description 45) this mixed method approach allowed her to illustrate her points by making annotated sketches on tracing paper which could then be overlaid on commercial postcards (Figs. 6.15a, b; Sandberg 1912: 19).



Fig. 6.15a Postcard with annotated overlay and postcard of detail indicated on overlay to accompany description 45 (© S.C. Squibb, March 2023)



Fig. 6.15b Same postcard without annotated overlay to accompany description 45 (© S.C. Squibb, March 2023)

Although it has been suggested that this represents an equivalence to the use of layers in the manipulation of digital imagery, this is not strictly the case. When using modern editing programs, the various elements of a digital image can be separated out and manipulated individually to produce a desired effect. The tracing paper overlays used by the Oxford students did not alter the original image but were used to draw attention to specific features. Sandberg used this technique not just to discuss the presence of various meanders on the River Wye but also to emphasise the extent of flooding at Hereford in 1910, when the normal width of the river is shown on the overlay (Sandberg 1912: 12).

6.9 Elevated overviews

The use of the model to give an overview of the region being investigated was demonstrated by Russell (Fig. 6.3) but other modes of visualization to re-present, at least part of, the region were more prevalent. One mode was the employment of a sequence of overlapping photographs to create a panorama, a technique used by Reginald Alfred Carr-White (1892–1964, diploma with distinction 1927, description 250). Although major postcard publishers, including Photochrom and W.H. Smith, issued ‘Panoramic’ or ‘Panoramcard’ — large oblong cards — the only examples present in this archive are of the ‘Panorama Post Card’ from Frank Lasham, a bookseller, printer and stationer in Guildford, used by Hilda Mary Watson (1879–1968, diploma 1919, description 186).

A more frequent means of obtaining an overview of a locality was the development of the use of the ‘bird’s-eye view’ from a high vantage point, such as the top of a church tower or the opposite side of a narrow valley (Elaine Wade, 1906–1968, diploma 1928, description 260, personal photograph at fig. 55). Commercial photographers, such as Henry Taunt of Oxford, were used by students to demonstrate this overview. Taunt imagery was used by Lorna Mary Emma Vincent (1895–1989, diploma 1920, description 184, p. 63) where she used just one of a sequence of three Taunt took in 1892 from the top of Charlbury church tower looking in various directions over the town. Vincent also used postcards from the Chipping

Norton photographer Percy Simms who used the tall chimney of the Bliss tweed mill to photograph across the intervening valley to the western side of the town. However, by 1920 Simms had already taken advantage of the 1919 Air Navigation Act to photograph the town from the air and Vincent was one of the first students to incorporate aerial imagery in her description (Vincent 1920: 53e, 53f). Ellis (2021) has investigated the development of the aerial perspective in imagery from the nineteenth century to the modern use of drone technology.

6.10 Aerial Photography

Aerial photography, from cameras attached to balloons and kites to photographers holding their equipment in aircraft to automatic recording of vertical images, has been used in a variety of ways. Developments have been driven not only by improvements in both camera and aircraft technologies but also by the experience gained by personnel during military operations. Although, perhaps slower to fully embrace the new technology afforded by photography, the military had begun to experiment with its use as an aid to ground surveying in 1907 when Kenneth Mason of the Royal Engineers, later to be appointed to the first statutory chair in geography at Oxford for the introduction in 1932 of the Final Honours School in the subject, assisted a colleague in constructing a map of part of the Lake District from stereoscopic pairs of photographs (Mason 1927: 342).

The development by the military of aerial photography during World War I was subsequently taken up by both archaeologists and geographers. Osbert Guy Stanhope Crawford (1886–1957, diploma with distinction 1910), who is credited with the success of this technique in the field of archaeology (Crawford 1923), developed his skill in taking aerial photographs during his service with Field Survey Battalions on the Western Front and as an observer in the Royal Flying Corps. Crawford had also seen examples of aerial photography taken from box kites during his time at the excavation of Abu Geili in Sudan in early 1914, sponsored by Henry Wellcome (Hauser 2007: 154). Having switched from his classics degree to studying for the diploma in geography at Oxford, Crawford was offered, and accepted, the post of demonstrator [junior lecturer] in the Oxford School of Geography in 1910. However, within eighteen months he had left the School and been replaced by Alan Grant Ogilvie in January 1912, an appointment discussed in chapter 5.10. As noted above Crawford’s regional description is not extant in the archive but was subsequently published (Crawford 1922). Crawford is frequently regarded as the ‘father of aerial archaeology’ although he was not the first to engage with this aspect of the discipline. However, as Cantoro notes “a particular merit of Crawford was his attitude of transferring his photo-interpretation directly to maps” (Cantoro 2015:104). Bowden also highlights this aspect of Crawford’s work (Bowden 2001), a skill influenced by his geographical training at Oxford.

Siotto has explored the impact of aerial photography on military reconnaissance during World War I and noted how:

“At the start of the war, officers were trained in field sketching, which had been for centuries the main method to report information back to field commanders and headquarters. At the end of the war, sketches were still useful and still part of military manuals, but the ubiquitous presence of cameras made this technique important only on a small tactical scale. Aerial photography and panoramas changed the way of recording visual data on the battlefield. Observation and interpretation could be made at different times.” (Siotto 2022: 14)

This chimes with the use by the Oxford geography students of both field sketching and photography, including the panoramic as well as the aerial.

However, it was the arrival of Mason in Oxford in 1932 that brought this technology to greater prominence in the School of Geography. Lee’s book *The Face of the Earth as seen from the Air*, published in 1922 by the American Geographical Society, was not acquired by the School’s library until January 1934. As Lee expounded “navigation of the air has opened a new world to the geographer” and by presenting new views of subjects the study of land forms can be made from a “new and advantageous point of view” (Lee, W.T. 1922: ix–x). Mason would also have been instrumental in arranging for Michael Spender to give a series of lectures in Hilary Term 1937 on ‘ground and air photographic survey’ (*Oxford University Gazette*, 1936 67(2152): 248), following his return from surveying the Mount Everest region (Spender 1936).⁹⁴

⁹⁴ Michael Alfred Spender (1906–1945) senior Royal Air Force photographic interpreter of S. Cotton’s photographic reconnaissance unit during World War II.

Aerial photography within geography initially had to rely on either the Royal Air Force or commercially produced images due to the cost involved. However, by 1927 Ellen Mary Sanders (1883–1967), senior geography mistress at Furzedown Training College, Streatham, was demonstrating the “developing appreciation of the importance of oblique aerial photographs, skilfully used in conjunction with maps and field sketches” (Marsden 1988: 334) in her book *Geography from the air*. The reviewer of this book in *Geography* commended it for “having taken immediate advantage of the great opportunities which travel in the air offers to teachers of geography” (Anon. 1927: 79).

As I noted above the developments were driven not only by improvements in the relevant technologies but also by the experience gained during military operations. As Hatfield notes “postcards represent an attempt by ex-flying aces from the First World War to transfer their military skills into a post-war living” (Hatfield 2019: 11). In England this gave rise to the leading company involved in the exploitation of aerial photography, Aerofilms Ltd., which was founded in May 1919 shortly after the 1919 Air Navigation Act permitted civilian flying over Britain. One third of the 48 aerial images used by the students from 1920 are from this company, with a further 5 published by Surrey Flying Services based at Croydon Aerodrome between 1919 and 1934 {[https://historicengland.org.uk/images-books/archive/collections/aerial-](https://historicengland.org.uk/images-books/archive/collections/aerial-1934)

[photos/100-years-of-aerofilms/](https://aflightingpeace.org/index.php/page-joy-riding)};{<https://aflightingpeace.org/index.php/page-joy-riding>}.

But it was not just companies such as the Surrey Flying Service which entered the market for aerial postcards, the picture postcard industry more generally embraced its potential to extend the ‘bird’s eye view’ from that taken from local vantage points such as the top of a church tower to a wider viewpoint taken from an aeroplane. As I noted above, Vincent took advantage of the innovative use by a local photographer moving from the ‘bird’s eye’ view to the aerial in 1920.

Table 6.2 Use by students of aerial illustrative sources

	1919–1939 (Total - 255)	1919–1939 with Illustrations (Total - 180)	With Aerial Photographs
No. in Archive	153	134	26
	60%	74.4%	19.4%

The percentages given in the first two columns refer to the totals given in the column headings, that in column three refers to the subset in column two. As seen from Table 6.2, 26 students incorporated aerial imagery into their regional descriptions after 1919, when it became commercially available. An analysis of the sources for this imagery shows that it was not only professional aviation companies that supplied the postcard industry. Professional photographers, such as Percy Simms of Chipping Norton and Alfred William Wardell of Brighton, hired aircraft and pilots to take them and their equipment as passengers in order to fulfil this expanding market (Figs. 6.16 and 6.17).



Fig. 6.16 Local aerial postcard (53f) to accompany description 184
 (© S.C. Squibb, July 2023)



Fig. 6.17 Annotated aerial postcard (fig.3) to accompany description 126
 (© S.C. Squibb, April 2023)

Whilst Vincent gave textual comments on her illustrations Roger Hamilton Drummond (1894–1972, diploma 1922, description 126) annotated the postcards produced from aerial photographs. This use of the aerial image reflects the use of modern technology to project a modern approach in an emerging discipline, thereby engendering a new perspective which the students could take forward into the classroom when they entered the teaching profession.

Very occasionally the aerial overlapped with the personal as when Arthur Maitland Emmet used not only commercial prints from Aerofilms but also his own taken from the government surplus biplane he had purchased as indicated by his text “The writer when flying between Manston in the Isle of Thanet [near Ramsgate] and an aerodrome to the N. of London” (Emmet 1932: 71; Fig. 6.18). Emmet had learnt to fly whilst an undergraduate at Oxford, reading classics before taking the geography diploma. He became a member of Witney Flying club and in 1932 purchased a Bristol Fighter F2b F4721 built in 1918 and later retired by the Air Force

{[https://en.wikipedia.org/wiki/A. Maitland Emmet](https://en.wikipedia.org/wiki/A._Maitland_Emmet)};{<https://www.key.aeroforum/historic-aviation/104075-st-edward-s-school-oxford-and-brisfit>}.



Fig. 6.18 Personal aerial photograph to accompany description 293
(© S.C. Squibb, July 2023)

6.11 Photographic visualization in the re-presentation of ‘the country’

Ryan has drawn attention to a distinction to be made between the impact of photography on the making of geographical observations in the field and its influence on the making of geographical knowledge through reproduction (Ryan 2005: 229). At Oxford, the students used both aspects to convey their understanding of the geographical knowledge they had received from the academics in the School. As Hauser has noted in connection with the use of aerial photography in archaeology the “viewer has a role” by looking at the imagery in a particular way (Hauser 2007: 84). For geographers, their

particular way of seeing was the ‘eye for country’ which involved both personal observation and an understanding of imagery from non-geographical sources, such as the picture postcard.

The use by students of multiple modes of visualization, partly depended on their preference for a particular mode, as in Russell’s use of the field sketch to discuss the landform, known as the ‘Manger’ (Fig. 6.19a), and partly on their own skill in a particular mode. This is evidenced by Hockley in her discussion of the ‘Manger’ when she includes a postcard produced by the Wantage photographer Tom Reveley because it was “much better than mine” (Fig. 6.19b). Hockley’s assessment of her photography was that “as is the fate, when one begins, some special views didn’t come off”, in this instance she realised that “I hasn’t [*sic*] got details of combe sides photographed & even this isn’t v. clear. But I might perhaps manage to get them” (Hockley 1908: unpagged).

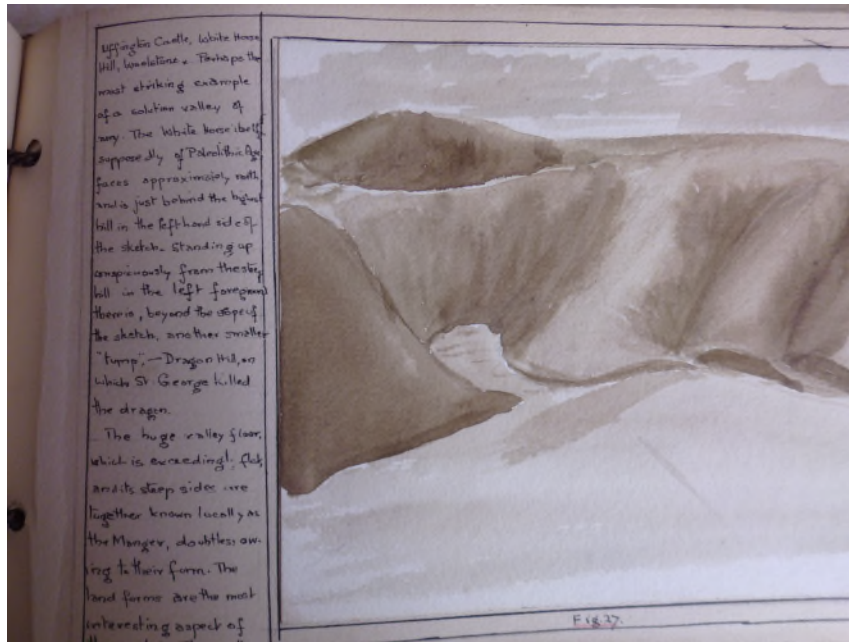


Fig. 6.19a Field sketch (fig. 27) to accompany description 237
 (© S.C. Squibb, Dec. 2023)



Fig. 6.19b Postcard and personal photograph of same view
 to accompany description 21 (© S.C. Squibb, March 2023)

Bertha Mary Broadhurst (1900–1976, diploma with distinction 1923, description 217) also used the Vale of the White Horse and the adjacent downland as her description area. She incorporated both a locally produced postcard and her own photograph of the ‘Manger’ but the two images provide different viewpoints of this feature as the postcard looks into the Manger from the foot of the downs and her photograph looks down from the chalk figure (Broadhurst 1923: 7).

Unusually a tutor’s comments are appended to Russell’s text where it is described as a “valuable piece of work marked by deduction from personal observation” and the “sketches are admirable” whilst the “maps (though some are sketchy) are adequate & clear” but overall, it was deemed to be an “essay of great merit” (Russell, M. 1925: recto leaf 71). In Drummond’s case he was warned to “avoid fanciful issues in science” as the “virtue of a scientific thesis is simplicity and lucidity” (Drummond 1922: 1).

6.12 Conclusion

Students studying for the Oxford Diploma in Geography in the early twentieth century attended lectures where the visual, in the form of lantern slides, was an integral part of that form of knowledge transmission. They also participated in weekly field excursions where their ‘eye for the country’ was further developed. In the production of the compulsory regional description they had to demonstrate their understanding of this concept by their use of

illustrative material as the compulsory geographical description was expected to include “relevant tables, maps, diagrams and illustrations” (*University of Oxford Gazette*, 1905–6, v.35: 410) and as has been shown in this chapter the students did include personal photographs, which I designate as a specialized form of the vernacular. As seen in Table 6.1 23% of such material, that is extant, was in the form of maps and diagrams but 70% was based on photographic imagery, either the students’ own, taken in the field, or commercially available in the form of either prints from the photographer or, more especially, view postcards.

Today, picture postcards are used in academic research across many disciplines. However, the students of the Oxford School of Geography were acquiring and using them in the early twentieth century specifically to illustrate geographical arguments in their regional descriptions. In the next chapter I investigate the careers of these students as the Oxford diploma was seen as a recognised qualification for the furthering of scholastic teaching careers. Photographic imagery was regarded as a vital part of the geography teacher’s armoury in the promulgation of the ‘new’ geography. It was complementary to ‘outdoor work’ and the field trip or geographical excursion and helped to engender an ‘eye for country’ in school pupils. This was especially significant if the school was located in an inner city where the possibilities of outdoor work were limited.

Of the students mentioned above the subsequent career of Crawford has already been alluded to in relation to aerial photography. Hosgood made a career in academia, becoming head of the geography department at Bedford College, University of London. All of the others pursued careers as schoolteachers, albeit two were cut short by World War I and Emmet taught classics and English, rather than geography, at St. Edward's public school in Oxford. Geography was taught there by Philip Benjamin Whitrow (1894–1976, diploma 1923, text only description 206). The next chapter will explore such careers for those students whose regional descriptions are extant in the archive in the context of transmitting their geographical knowledge obtained during their studies at Oxford.

Chapter 7

Onward transmission: teaching careers of Oxford Geography Diploma students

“From the Universities ought to go forth secondary teachers and elementary teachers who will each translate what they have learned, with the certainty of a vast background of knowledge, into the simpler forms that are needed in the schools.” (Mackinder 1903: 100)

For Mackinder, a major aim of a university qualification was the production of specialist school teachers skilled in their discipline. In this chapter, I address a methodological question concerning the use of a particular biographical genre, namely ‘What are the advantages and challenges of a study focusing on an entire cohort of students, vis-à-vis selected canonical academics?’ I also consider a further methodological question: ‘What are the opportunities and limitations offered by the variation in biographical genre that must be applied to a group, or collective, as opposed to an individual?’

In the previous chapter, the students’ use of illustrative material in their regional descriptions presented for examination was investigated. This provided the context for that use. The sources for that material were also examined in order to consider not only the content of the material but also the various audiences that could access the imagery. In exploring the onward transmission of geographical knowledge, I, here, engage with a second site of transmission — the school classroom. The methodological questions noted above are addressed as I compile and then analyse the data presented in Appendix 3. The findings of that analysis are discussed below in the sections

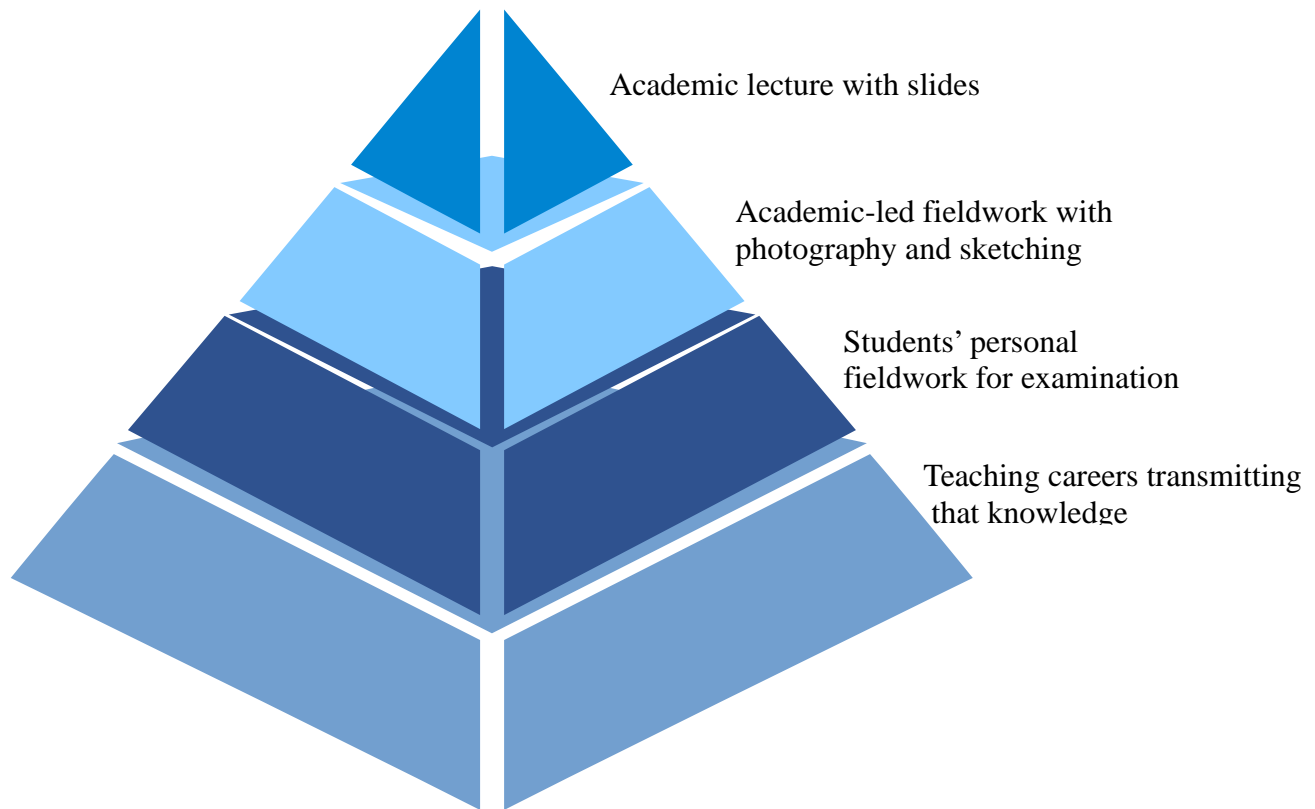
following section 7.9. In doing so I reveal that the second site of transmission entailed a cascading of geographical knowledge created in the first and second sites of production.

The Diploma in Geography, 1900–1939, from the Oxford School of Geography was specifically supported by the RGS as a means of promoting geography as an important part of school education, not least with regard to citizenship both of the home nation and the wider empire. This aspect of education is further discussed below. The RGS had highlighted the lack of geographical education, in both schools and universities, in the report produced by Keltie in 1885 and continued to press for a greater presence of the subject.

As the goal of the RGS was the improvement of the standing of geography across the educational spectrum it felt that this could best be achieved by enabling the provision of specialist subject teachers. This chapter, therefore, considers the transmission of geographical knowledge beyond the School of Geography at the University of Oxford during the early twentieth century, in particular to secondary schools mainly within England and Wales but also overseas in various colonies. This transmission encompassed not just the transfer of geographical knowledge from the teacher to their pupils but also the many and various skills by which an understanding of the world could be rendered visible. Thus, the junction of the verbal and visual in acquiring knowledge, introduced to the Oxford Geography Diploma students during

their attendance at academical lectures as well as in their participation in field trips, became an essential component of the geographical education they then promulgated in their schools and training colleges. In this they were cascading their own training and, thus, the schoolroom becomes a second site of transmission and forms the base of a pyramid of transmission which descends from the academic lecturer and their use of the photographic lantern slide in the first site of transmission, the university lecture theatre, via the students' own production of geographical knowledge in their fieldwork (Fig. 7.1).

Fig. 7.1 Pyramid of transmission of Geographical Knowledge



The visualization of this concept illuminates Mackinder's comments to the 1895 International Geographical Congress concerning the six million pupils in compulsory education (to age 11) who "formed the layer of a pyramid" (Mackinder 1896: 92).⁹⁵

By concentrating on those students who subsequently became either schoolteachers or lecturers in teacher training colleges, as opposed to those

⁹⁵ 1891 census figures for the age group 5–9 for England, Wales and Scotland give the total as just under five million, but Mackinder would also be including ten- and eleven-year-olds as well as this age group in Ireland.

who remained within the academic milieu, it becomes possible both to link the history of the academic discipline of geography to that of geographical pedagogy beyond academe and to evaluate the influence of the visual culture of the Oxford School of Geography beyond its confines. Their training at Oxford had enabled students to acquire both an understanding of objective observation, which has been categorized as an ‘eye for country’, and a competency in the various elements of a geographical skills toolkit which included visual literacy. This training was not simply of value within the remit of the school geography lesson but also in the wider context of the societal worth of education. Geography, it was argued in the early twentieth century, was the study of ‘man’ in relation to the physical environment and by expanding its study from the immediate locality of the school to the envisioning of such relationships throughout the world the horizons of the pupil were enlarged and an understanding of an individual’s role in the world could be engendered.

7.1 Role of Geography in Education

By setting the discipline of geography within the broader context of the role of education in society it becomes possible to understand the role that the subject was expected to play. There was an understanding at the end of the nineteenth century that:

“Every civilised man must know something of the earth beyond his own immediate experience; to the officer, the man of business, the journalist, the politician, the

statesman and the scientist a knowledge of Geography is a necessary part of his professional outfit.” (Hewlett 1895: 256)

In 1895, Hewlett was a grammar schoolmaster in Oldham, Lancashire and at the same time Herbertson was a lecturer in geography at Owens College in Manchester. Herbertson considered that Hewlett’s article on the “position of geography as a school subject” was of sufficient importance to include a copy in a compilation of 50 similar offprints under the generic title of ‘Geographical aims and methods’ which he used in his Oxford teaching and which were subsequently included in the Oxford School of Geography’s library.

Herbertson’s own position on the “importance of geography in secondary education” was set out in a paper of that name he read at the 1895

International Geographical Congress. In it he asserted that:

“Geography involves accurate observation, and the comparison of observations; it calls into play the higher reasoning faculties; it stimulates the imagination, both receptive and constructive” and further that “geography should be one of the most important subjects in the curriculum of our secondary schools, not only from the point of view of mental discipline, but also for its practical utility.” (Herbertson 1896c, 84, 86).

A recurring mantra amongst writers of educational theory and practice is that the ultimate aim of all education is the development of ‘good’ citizens.

This was discussed in the specific context of citizenship of the British empire in the writings of a lecturer at the Cambridge University Day [Teacher]

Training College, Oscar Browning, (1894: 163, 196) and the imperialist 12th Earl of Meath (1901: 21, 49). Heathorn (1996) explored this, mainly in

relation to the education of the English working class between 1885 and 1914.

Beaven and Griffiths (2008: 208–211) discussed the ‘exemplary citizen’ in a

similar period whilst Heater (2004: 92–94) has contextualized it in a broader discussion of citizenship education.

Robert Edward Hughes, an inspector of schools, writing in 1902 proclaimed that “countries like good mothers, endeavour to prepare their future citizens for life” (Hughes, R.E. 1902: 3) thus endorsing the view that there was a role for education in the enterprise of engendering citizenship. The end goal had expanded from one concentrating on the character or the moral education of the individual to one where ‘civic engagement’ and ‘world citizenship’ are extolled. So that with the decline of the imperial imperative other citizenships beyond the national have emerged, the European as well as the world (e.g. Fernández (2005) and Haigh (2005)). Fleure, the professor of geography at Aberystwyth, linked the teaching of geography to the development of world citizens when he wrote:

“We shall be wiser if we try to build up future citizens of humanity who will have some preparation to appreciate the diversity of problems, of opportunities, of governmental and of social needs among their fellow-men the world over.” (Fleure 1921: 173)

The concept of ‘thinking geographically’ was explored in chapter 4.2 and this was brought to the fore by the lecturer in geography at Manchester University, William Henry Barker, who placed this centrally in citizenship education when he stated:

“We seek to give the pupils such a training in the geographer’s characteristic mode of thought that as citizens they will be better able to find more satisfactory solutions [to modern problems].” (Barker, W.H. 1927: 188–189)

Others such as Lidstone and Stoltman (2002) and Haigh (2005) report that the discipline has long been promoted as an ideal subject in fulfilling this aim.

The London Day [Teacher] Training College lecturer in geography, James Fairgrieve, emphasised that “by a study of geography we are enabled to understand facts without a knowledge of which it is impossible to do our duty as citizens of this very confusing and contradictory world” (Fairgrieve 1926: 8).

But Barker and Fairgrieve were not the first to enrol geography in citizenship education. Margaret Colley March (1881–1952), the geography teacher at St. George’s High School for Girls in Edinburgh, explicitly stated “the aim of the geographical teacher ... producing a citizen with an intelligent knowledge of the world” (March 1914a: 300). Scarfe, in his review of research into the teaching of geography, also highlighted the role of the subject in the more general aim of education as a means of providing training for citizenship (Scarfe 1949: 60–61). For March the definition of a ‘good’ citizen was “an individual with a clear idea of the state in which he lives, his duty towards it, and its duty to him” (March 1914b: 426).

The ability of geography to consider not only the home nation but also to look beyond national boundaries to the entire world was one which was perceived to be a distinct advantage in claiming a place for geography in the school curriculum. As Welpton, a lecturer on education at the University of Leeds rather than a geographer, expounded on the eve of World War I:

“Because they are the future citizens of a great Empire that has world-wide commercial and political relations, they need to be given a ‘world’ point of view, to be led to an interest in and understanding of problems and movements of international and world importance. Hence citizenship and all that citizenship means in a world outlook should be the key to any scheme of geography for schools.” (Welpton 1914: 293)

This was important for the discipline as it was a comparatively new academic discipline in the UK which needed to justify its place in the scholastic curriculum and also ensure that a sufficient amount of time was allocated to it in the timetable. Herbertson, as editor of the *Geographical Teacher*, noted in 1907:

“A knowledge of geography makes for greater efficiency in practical life; it is an essential part of the training of the citizen. It is an educational discipline of the highest value, supplying some of that element of humanistic culture which is all too lacking in the necessary utilitarian curriculum of the elementary school.” (Anon. 1907b: 97)

When the Liberal politician, James Bryce, addressed the Geographical Association he echoed Hewlett by asserting that:

“When you deal with young men who are going to remain at a higher secondary school [un]till they are seventeen or eighteen you are dealing with a class from whom will be drawn the upper officers and what may be called the general staff of the army of industry ... give them an intelligent conception of the phenomena with which they will be concerned in their business life.” (Bryce 1902: 60)

These repeated exhortations in the journal of the Geographical Association, aimed specifically at schoolteachers, encouraged the transmission of the message that geography was a subject intimately connected to the development of the concept of citizenship. The emphasis that Herbertson placed on geography being an “essential part of the training of the citizen” ensured that this message was transmitted to Oxford students who could then cascade it down in their own teaching.

7.2 Developments in geographical thought and school pedagogy 1900–1940

As I discussed in chapter 2.3, the early years of the twentieth century saw the concept of the region become an important paradigm within academic geography. I showed in the previous chapter that the Oxford School of Geography’s geographical praxis was uniformly that of regional geography, but a regional geography that emphasised the integration of both the physical and human aspects of the subject to produce a synthesized outlook. As a diploma student commented in 1917

“Geography opens up so many aspects from which a district can be studied that even one of such comparatively little importance, as the basin of the Rother, becomes seemingly an inexhaustible mine of interest.” (De La Mare 1917: 37)⁹⁶

Such a synthesis developed into the broader, more generalised regional survey movement.

A secondary school headmaster, Howard Clive Barnard, writing in the 1930s, linked regional surveys to citizenship when he stated that:

“intensive study of the school region is like a study of world in little; and if the teacher can help his pupils to appreciate ... their relationships and responsibilities in that microcosm, they may be set in the way of realising ... a far wider citizenship”
(Barnard 1933, p. 210)

The students from the Oxford School of Geography who had careers in education were well placed to transmit this aspect of the subject due to the Oxford diploma curriculum and its emphasis on practical teaching and the incorporation of visual elements from the geographer’s toolkit.

⁹⁶ Kathleen De La Mare (1885–1942) diploma 1917, dissertation 122, began her teaching career in 1908.

7.3 Regional Surveys

Geography, it has been said, “gives a proper conception of the relation of the sciences of nature to the sciences of man ... and shows how the different sciences are related to one another” (Bryce 1902: 51). It, thus, enabled a teacher of geography to integrate the physical and human aspects of the subject by a consideration of regional geography. The synthesizing aspect of geography was one which was evident in Patrick Geddes’ work based in his Outlook Tower in Edinburgh and which influenced Herbertson during his time (1896–1899) lecturing at the University of Edinburgh. It was also apparent in the regional survey movement (Matless 1992) within which surveys were not only undertaken to form a basis on which to build ideas about regional planning by local, as well as central, government, etc., but such surveys were also included within school geography (Harris, B.F.D. 1935; Barnard 1933: 210).

The practical ‘regional survey’, as opposed to the more theoretical concept of the ‘region’, was espoused by at least two of the Oxford diploma students who also had teaching careers, namely Mabel Mary Barker (1885–1961, diploma 1913) and Charlotte Alner Simpson (1879–1962, diploma with distinction 1910). The last major publication of Simpson was entitled *Making local surveys: an eye for country* (Simpson, C.A. 1951) which, thus, continues the concept that an ‘eye for country’ was a necessary skill for geographers. However, in Simpson’s earlier publication *The study of local geography: a*

handbook for teachers she concentrates on the use of maps, rather than bringing pictorial imagery to the fore (Simpson, C.A. 1934).

It was considered that such regional or local surveys, undertaken by school pupils, would also fulfil the educational aim of generating good citizens at all scales (Matless 1992: 472). A local survey involved school pupils in exploring not just the physical environment of the locality but in then synthesizing the physical with the human geography. This comprised, amongst other aspects, the economic geography, both industrial and agricultural as appropriate to the area, the transport network and the population geography in terms of its size and make-up as well as the development of the settlement pattern. By engaging the pupils in the activities of observing the physical locality and collecting the information relating to the human geography teachers were considered to have enhanced the pupils' engagement in the civics of the locality, thereby engendering a greater sense of citizenship. Such surveys were what had been produced for examination by the Oxford diploma students, who were, thus, well placed to transmit their understanding and knowledge to their own students.

Barker, a disciple as well as god-daughter of Geddes, included photographs of her own students' survey material in her submitted dissertation as she was already a lecturer in the Saffron Walden Teacher Training College (see Maclean 2014: 111–112). She also instituted local survey work when she taught at a boarding school for pupils aged 9–18 in Kings Langley,

Hertfordshire (Maclean 2014: 118–119). Similarly, Edith Marion Coulthard (1890–1980, diploma 1911) was active in her use of the local survey in her teaching in Bishop Auckland, which she also regarded as an “education in citizenship” (Geographical Association 1938: 178).

Local studies, as a component of the scholastic curriculum, involved teachers taking their pupils out of the classroom and into their local surroundings. The Geographical Association’s Committee for Geography in Secondary Schools, in their discussion on the role of local studies, asserted that:

“We must train eye and hand in co-operation with the intellectual faculties. We must take the pupil out of the class-room and bring him into early and close contact with the greater world.” (Geographical Association 1938: 177)

Barnard asserted in 1933 that “regional survey is really an application of the methods used in ordinary school geography to the study of a small area which can be directly observed by the pupil” (Barnard 1933: 153). Freshfield had already made this connection in his 1911 address to the Geographical Association when he emphasised the value of outdoor work if it was practical or the use of the visual if it was not:

“Do not make the lesson depend solely on what is found in books and maps. Teach the pupil, as far as you may, to refer to the facts of nature, or at least to the lantern pictures by which they are now represented in so vivid a manner.” (Freshfield 1911: 9)

These activities were seen as an extension of school fieldwork as the schoolmaster, Bernard Frederick Dawes Harris, noted in 1935:

“The modern incidence of the regional survey idea, or that of school journeys is especially striking in this connection ... any work that entails observation, tabulation and correlation of both academic and non-academic material should be an integral part of the geography course.” (Harris, B.F.D. 1935: 42)

However, training in observational skills was not only to be found within the school curriculum but also in more informal and / or voluntary settings. These included, but were not confined to, woodcraft folk (Mills 2016), (boy) scouting (Mills 2012), and (girl) guiding (Mills 2011). These organisations could also provide informal science as well as geographical education (Jarman 2005) and, more broadly, the rural could be brought into the educational sphere (Gruffudd 1996: 415–416; Matless 1995). Maclean notes that Barker was involved in scouting activities, as well as in teaching (Maclean 2014: 116–117), as was the grammar schoolmaster, Leslie Brettle, whose writings are considered later. Other settings which emerged to complement the formal scholastic one in providing observational opportunities included the School Nature Study Union (Jenkins and Swinnerton 1996) and the School Journey Association (Marsden 1998).

School journeys usually entailed extended periods away from the home locality as opposed to excursions taking less than a day. This could mean that they were more prevalent in more affluent schools. Nature study, on the other hand, was more usually associated with the local area and the short excursion. Several proponents of nature studies linked them specifically to geography as: “nature study is very closely connected to geography and should be correlated with it” (Anon. 1904: 186). Geddes, in a speech to the Nature-Study Exhibition of 1902, asserted that “nature study passes into geography” (Anon.

1903d: 90) and Mackinder declared that “fundamental geographical processes” developed out of nature study (Mackinder 1904: 193).

Herbertson was a strong advocate of practical geographical teaching and in his articles in the *Scottish Geographical Magazine* asserted that:

“Geographical teaching, to be worth anything, must be real and practical. It is not enough to appeal to the ear alone. The eye must be trained as well, first of all by seeing the actual land surface from which the first lessons in geography must be taken.”
(Herbertson 1896a: 579)

This can be summed up as “geography is not to be learnt from books alone” (Ravenstein 1886: 175) and, thus, the role of the teacher beyond the physical classroom was endorsed.

7.4 Fieldwork as pedagogy

Importance has always been attached to fieldwork in the teaching of geography at all levels as Cook noted in her 2011 review of the practice. In the Oxford School of Geography weekly field trips were organized for the students, either on foot or by bicycle. Such field excursions were also included from the beginning in the Oxford Summer Vacation courses for schoolteachers. Already by 1901 Joan Berenice Reynolds (1870–1950) was writing in the newly established journal of the Geographical Association extolling the benefits of such fieldwork by stating that:

“The direct aim of class excursions, and the previous and after work connected with them, is to teach children how to make observations, and express and record their observations intelligently.” (Reynolds 1901a: 32)

Reynolds was a passionate advocate of the value of field work going so far as to proclaim that it should be the basis of geographical teaching as it gave

“children the power to obtain geographical knowledge for themselves” (Anon. 1902b: 88).

Bryce, when he addressed the Geographical Association, endorsed the value of field work by saying that “pupils’ minds must be brought into contact with facts and not words, they must be taught to connect what they read and what they hear from their teachers with the actual facts they are trained to observe for themselves” thereby giving them “direct personal knowledge not mere book knowledge” (Bryce 1902: 52). Lomas emphasised this in 1904 when he wrote in *Geographical Teacher* “there is only one way, and that is by observation. Seeing must always go before knowing” (Lomas 1904: 158).

Whilst Powell also reiterated this in 1947 when he asserted:

“The living geography we desire cannot come from within the four walls of the classroom ... The geographer must use the open air, the fields, the woods, the factories, the mines and the towns ... [this] can only come through visits, school journeys, field work and the maximum encouragement of personal observation in the individual wanderings of pupils and students in this present ‘Outdoor Age’.”

(Powell, A.G. 1947: 147–148)

In its report on the teaching of geography in London schools the London County Council declared that “‘doing’ things is fundamental” and that “the excursion in some form is fundamental” (London County Council 1910: 18). The report also asserted that pupils could be led “to see again in imagination through the photographic print” (London County Council 1910: 19). Barnard was another who emphasised that the “really important thing is the training in intelligent observation” (Barnard 1933: 213).

In all of this, the region can be regarded as the scientific outcome of the geographer's skill in using a wide range of distributed skills and synthesizing them into the geographical concept. Those skills involve not just that of 'directed' or 'informed' observation (Sanders, R. 2007: 181; Cosgrove and Daniels 1989: 171) but also the means to record the observations and then convey the information contained within them. Two essential elements of the geographical skills toolkit were, therefore, being foregrounded, that of the skill of observing the landscape and those relating to the various skills in recording that landscape. These were essentially practical skills and were an aspect of geographical training that Herbertson was an advocate of and which he communicated to the Oxford School.

7.5 Geographical Skills Toolkit both in and out of the classroom

Geography has been shown to provide not only mental instruments, such as thinking and reasoning, but also practical ones in the form of a skills toolkit. This set of skills includes the visual ability to analyse the setting in which a person is located; as Patmore has stated "geography was concerned with the tangible landscape, and an *'eye for country'* was the most valued of the geographer's tools" (Patmore 1987: 183 [present author's emphasis]).

However, the geographical skills toolkit includes not only the skill of observing the landscape but also the various skills in recording that landscape.

Herbertson in discussing geographical education whilst still a lecturer in the subject at Manchester stated that "it is not enough to teach a child to see

what is around him, he should also be trained to express the results of his observations” and that “geographers have long ceased to be contented with mere verbal descriptions” (Herbertson 1896b: 522). Thus, he was arguing that what is observed needs then to be recorded in both a visual as well as a verbal way, an attitude which he carried forward into the Oxford curriculum. The practitioner of geography can then employ skills and techniques which are generally available within the broader community to construct a specifically geographical outlook on the topic under consideration. The ‘eye for country’ can, therefore, be considered as a means of looking at a landscape in a very subject orientated way so that the ‘looking’ becomes geographical ‘observation’.

As was shown in the previous chapter, the principle recording techniques involved the construction of maps and plans, the display of statistics by means of charts, diagrams and graphs, and the re-presentation of the landscape via the medium of field sketches and watercolours. It is this latter re-presentation that was then extended to include firstly the photograph and subsequently the aerial photograph.

Although the reviews of the secondary schoolmaster John Bygott’s (1877–1955, diploma 1912) textbooks were mixed he did include an appendix on the regional survey in the third edition of his main work, first published in 1934. There he outlined the value of examining the region “in the field” and using the “ability to make perspective sketches and block diagrams, and to use

a camera with a geographical eye” (Bygott 1947: 245). He further elaborated that the:

“Geographical eye can pick out prominent features readily and adjust the camera to produce pictures with the best three dimensional effect, e.g. from a vantage point on higher ground to obtain pictures of a meandering stream on the neighbouring plain so that the meanders, levees, and possibly river terraces are clearly visible.”
(Bygott 1947: 245)

Bygott is here invoking the full range of the skills toolkit to render the observed visible in subsequent representations. Each component of the toolkit contributed to the overall interpretation and is now considered in turn.

7.6 Field Sketching

Earlier, in both chapters 4.4 and 6.4, I discussed the role of field sketching and noted that Mackinder advocated not pedantry but the selection of that to which attention was to be drawn. As an activity which, by its nature, took place in conjunction with the school journey or excursion geography teachers could find field sketching valuable as knowledge and insight are gained by the act of recording, since this depends on the art of seeing. This has been summed as “to sketch = to look = to see = to think” (Wilks 1973: 355).

The two gendered aspects of field sketching outlined in chapters 4.4 and 6.4 permeated English society from the eighteenth century and entered into understandings of what constituted a ‘proper education’, at least in terms of the upper and, increasingly, the middle classes. I referred to this aspect of female education in chapter 6.4. Bermingham’s exposition on amateur art also includes a discussion of the formal separation of military drawing, in 1741,

and its masculine association with the public good, both military and commercial, from the more feminine polite accomplishment of an improving, and therefore educational, past-time (Bermingham 2000).

It is the re-joining of these two aspects, the masculine and militaristic with the feminine polite accomplishment, of the topographical landscape drawing and the understanding that “drawing promoted the habit of correct observation” (Bermingham 2000: 234, quoting Cole, H. (1853) *First Report of the Department of Practical Art*. London: Chapman & Hall) which produced a scientific approach to drawing and fed into the use of field sketching within geography.

More recently, although there has been a decline in the use of field sketching, partly due to the rise of personal digital photography, it is still valued as “an activity whereby observation is directly coupled with description” (Swales 2016: 2). Also, that by sketching it is possible to “discover, analyse, and comprehend the [...] environment” (Abrams 2014: xiv) but, perhaps, most importantly:

“Field sketching vastly improves observational skills, especially of detail, whatever scale or type of sketching is adopted. It allows the fieldworker to clarify detail [and] pay attention to areas which arouse interest or questions.” (Mott 2020: 280, 281)

As Alice Roberts noted when she re-sketched that done at Karnak in 1879 by Amelia Edwards “sketching makes you look really hard and appreciate” (Roberts, 2023). This echoes Debenham’s remarks to the

Geographical Association: “when you sketch a thing ... you really take in its details and appreciate it fully” (Debenham 1953: 121).

In chapter 4.4 I noted that the Oxford School of Geography specifically employed a qualified art teacher, Lettice MacMunn, to demonstrate, (i.e., teach), field sketching or ‘Landscape sketching for geographical purposes’ to attendees of both the 1910 and 1912 summer schools for geography teachers thereby encouraging the onward transmission of this visual skill into the school environment.

7.7 Map making and survey work

Map production has had a long tradition of being a valuable technique in rendering field observation visual. Within the Oxford School of Geography, it was regarded as an essential component of the diploma course and I reviewed this in the discussion of MacKenzie in chapter 5.3.

For geography teachers the rendering of pupils’ observations visually by constructing a plan of the classroom or a map of the playground before moving into the wider locale was regarded as an essential part of the school curriculum and many column inches were devoted to the topic within the journal *Geographical Teacher*. Catherine Elizabeth Clegg (1881–1952, diploma with distinction 1916) reporting on her work in an inner London school highlighted this aspect of recording observations for pupils aged about nine (Clegg 1922: 294). Apart from the formal construction of a map based on accurate measurements the use of the more rapid, but still carefully observed,

sketch map was also endorsed in the literature available to geography teachers (e.g. Taylor 1929). The sketch map has been described as an “expression of visual thinking” and as a “kind of synthesis [which] requires a complex process of abstraction to simplify an image without losing relevant information” (Lois 2023: 2, 15). It can, therefore, be considered that a sketch map, made in the field but differing from a pictorial field sketch of the same location, could become a more defined plan or diagram at a subsequent re-working away from the field location. This is evidenced in the use made by Vera Katherine Isaac (1891–1979, diploma 1913) of both simplified, but accurate, ‘sketch’ maps and photographs of the frequently changing course of the River Cuckmere (Isaac 1913: 19–21; Isaac 1915). She, thus, exemplifies Debenham’s later assertion that “sketching and photography are in fact complementary to each other” (Debenham 1953: 121).

7.8 Photography

Previously, I have considered the role of the emerging technology of photography in society as well as academia in the nineteenth and early twentieth centuries. Both academics and university students embraced this technology and contributed to the emergence of the concept of ‘visual literacy’, a concept which I discussed in chapter 4.1. Here, I wish to consider its democratization (Dominici 2014; 2015) and, thus, its potential within a scholastic environment as the broadening of the consumer base led to a “vision of the everyday” (Matless 1992: 446).

Initially photographic equipment was not only expensive it was also bulky and cumbersome and consequently was mainly confined to the wealthy and the professional, often within their studio rather than in the open air. However, the development by Eastman of the roll film in the late 1880s and, perhaps more importantly, the introduction of the firm's Box Brownie camera after 1900 enabled a broadening of the consumer base to include those less privileged (Eder 1945: 485–494). In the United States the first Eastman Kodak roll film camera sold for \$25 whereas the Brownie was priced as \$1 (Olivier 2014). When introduced into the United Kingdom the Brownie retailed for 5/-, a sum which equated to about one third of the weekly wage of a casual day labourer (Harding 2012; Saul 1995: 242). In a report of a school excursion involving “children from working-men's homes” Vernon commented that “both teachers possessed cameras ... next time we hope that some boys will have cameras of their own” (Vernon 1913: 171, 172). The photographs taken on this excursion, which included ‘technical views’, were also converted into slides for reshowing at a later date. This re-use of the photograph echoes Nicholls' assertion that “pictures are chiefly valuable in the discussion of the geographical excursion, as a reminder of what has been seen and may have been forgotten” (Nicholls 1909: 114).

Today much is made of the utility of re-visiting earlier photography but the ability of the camera to provide evidence for real time changes in the landscape has been appreciated from the beginning. Isaac's work on the River

Cuckmere, mentioned above, demonstrates this, albeit over a comparatively short time span of only two years but with very careful attention to ensuring that the same viewpoint was used, “the photographs were taken from the top of the East Cliff at high tide and as near Spring tides as possible” (Isaac 1915: 194).

However, the added value of photographic images was not lost on the teaching profession as geography became established at the turn of the twentieth century, with Carter writing on the subject in the first issue of the *Geographical Teacher* (Carter 1901) and Grist lecturing to the Geographical Association in 1910 on “The camera as an aid to the geographical teacher” (Rooper *et al.* 1911: 58). In 1914 the president of the RGS, Lord Curzon, was claiming that “the camera is now a scarcely less valuable ally of the geographer than the plane-table and the theodolite” (Curzon 1914: 9).

Sanders’s contention that the value of the visual content of the photograph is now to authenticate the verbal seems to have replaced an earlier one where the photograph was accepted as an authentic representation of the landscape (Sanders, R. 2007). For Donald Gray (1893–1943, diploma with distinction 1920) this manifested itself in the use of a photograph as providing ‘direct evidence’ to supplement ‘direct observation’. He summarized both aspects as follows:

“In the teaching of geography nothing can take the place of direct observation and direct evidence. ...Our pupils seem to be more readily convinced by the objective evidence of a farmer or a ship’s captain, or even of a photograph or a newspaper cutting.”
(Gray 1938: 24)

Alfred Augustus Davey (1873-1938, diploma 1907) during his career at the Islington Day [Teacher] Training College contributed articles on the state of geographical teaching in London as well as reviewing the various recommendations for the syllabus. He held to the belief that ‘outdoor work’ helped to generate an ‘eye for country’ but acknowledged that for some inner-city schools this was not always feasible, especially if “the children are very poor”. In such cases “these lads can only ‘see darkly’, and vaguely understand — through pictures and picture-postcards — what is meant by an eye for country” (Davey 1909: 93). Such comments reinforce the value of integrating the doing of fieldwork with the seeing, via the reproduction of the field in various forms of visualization including photography, in order to generate geographical knowledge. In his *Notes on geographical laboratories* Simmons remarks that “too little use is made of everyday sources of supply [of pictures]” and goes on to cite such sources as “illustrated papers and magazines” and further that “we must not despise the picture postcard” as well as suggesting that “a few begging letters to the great railway and steamship companies will procure for you some excellent large illustrations in colour of typical pieces of scenery” (Simmons 1908: 268–269). When discussing the educational value of geography by pitting it against the perceived higher value of a classical education a commentator noted that real photographs supply material “in which facts can be observed and inferences made” (R.H. 1914: 340).

However, warnings have continually been issued with regard to “indiscriminate snap-shotting [which] is to be condemned” (Carter 1901: 27). There have also been concerns that because “the camera encourages a rapid engagement” it encourages a “false belief that everything ... can be studied at leisure later” (Pocock 1983: 322). The rise of digital photography has furthered this belief that the technology now encourages people to just ‘point and click’ with the intention of looking closely at the image later rather than looking closely at the object in the field and carefully considering how to best take the photograph to bring out the feature identified (S.L. Horton, pers. comm. October 2023).

The role of the schoolteacher in training their pupils to be observant during outdoor activities and subsequently rendering those observations visually was a role particularly suited to former students of the Oxford School of Geography as they had received such training during their diploma studies and had exemplified their reception of that training in their submitted regional descriptions.

7.9 The Student Body of the Oxford School of Geography

The methodology for this chapter involves the use of the concept of collective biography, which was discussed in chapter 3.8, so that the collective becomes an exemplar for the whole. In this research I excavate mini-biographies of 60% of the Oxford geography students being examined before 1939 and present the results in Appendix 3. These biographies are, thus, taken

to be representative of the entire Oxford diploma cohort. The students investigated are only those involved in taking the various diploma and certificate courses offered by the School and not those who studied for the Final Honours School leading to the B.A. degree, which was only instituted in Oxford in 1932. They are also the students whose regional descriptions are extant in the archive as the location of the area frequently assisted in the identification of the student.

In the above discussions on the role of various elements within a toolkit of geographical skills, reference has been made to a number of Oxford geography diploma students and their interactions with these elements. Of the nine mentioned all were either schoolteachers or pursued freelance careers as teachers and writers in geography but only three were male.

Although Mackinder had considered that the Diploma would be designed for the “two or three men with a strong inclination to geography” (Scargill 1999: 3) he was pragmatic enough to realise that numbers would be increased by the admission of women and accordingly canvassed headmistresses as well as headmasters in his quest for students. However, it was not until after he had moved to the London School of Economics and A.J. Herbertson became Director of the Oxford School of Geography in 1905 that women began to arrive in any significant numbers (see Fig. 7.3 and Baigent *et al.* 2020: 93).

Fig. 7.2 Numbers of students taking the Oxford Geography examinations by gender⁹⁷

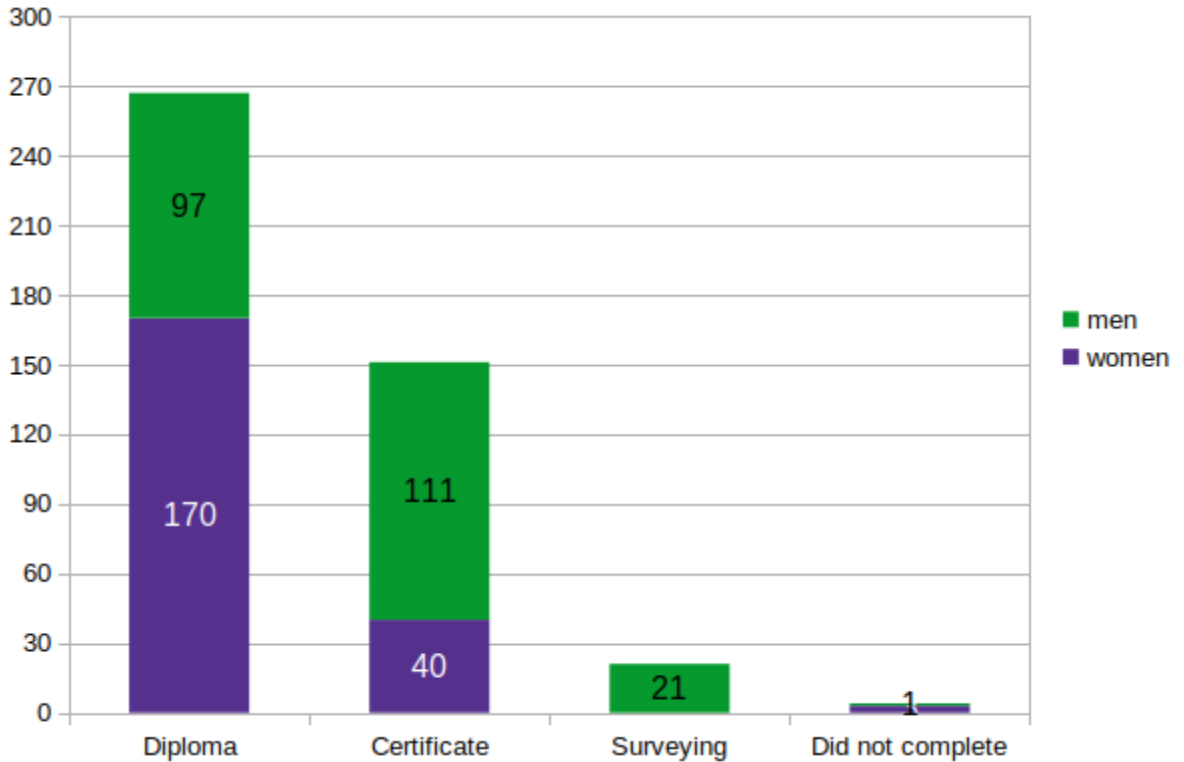
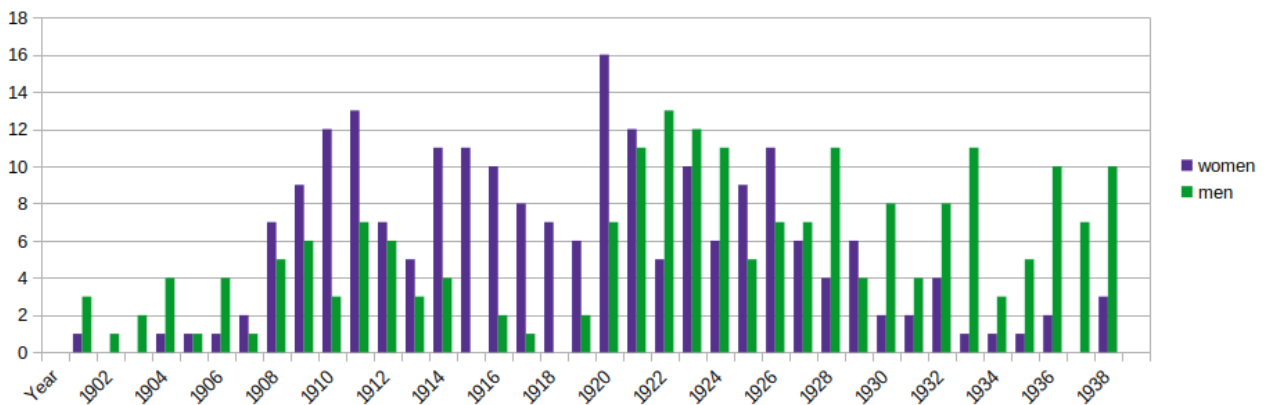


Fig. 7.3 Numbers of Students taking the Oxford Diploma in Geography by gender and year, 1901–1938



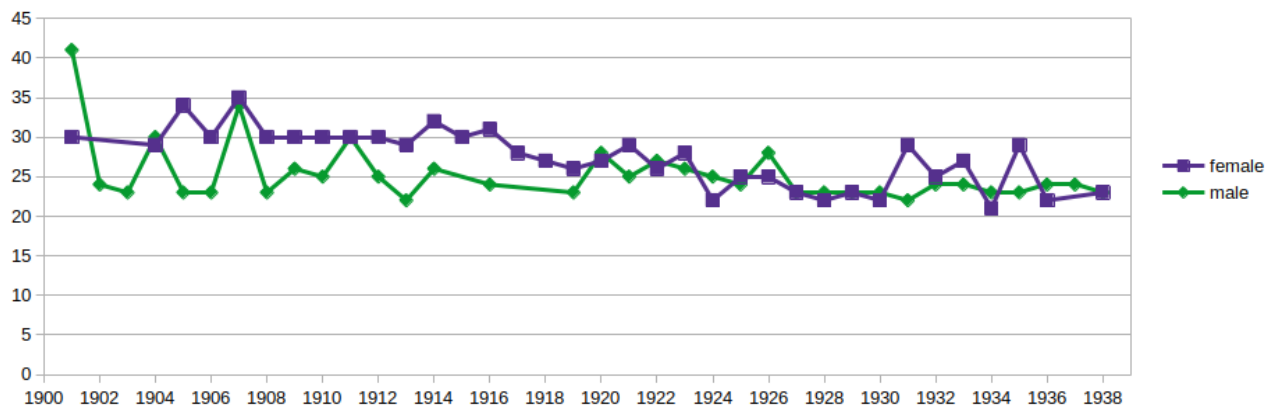
As seen in Fig. 7.2 the proportion of female to male students was almost exactly equal overall. However, Fig.7.3 illustrates how the proportion of

⁹⁷ The figures for the column 'Did not complete' are 1 male and 3 women

female students declined after 1926 most probably due to the university introducing an overall cap on the numbers of women admitted as undergraduates. Bell has drawn attention to the appropriateness of geography in imparting both national and imperial values not only to men but also women because it combined modern scientific knowledge with an aesthetic appreciation of nature (Bell, M. 1995). This placing of the subject in an apparently gender-neutral context enabled geography students of both sexes to consider teaching careers throughout the world and not solely within the British Isles. The expansion of secondary education from the late nineteenth century had also meant that, increasingly, there was a demand for professional women throughout the Empire as well as in the home country.

It will be noticed from the students referenced above that at least three were already either teachers or lecturing in a training college (viz: Clegg, Reynolds and Barker) and they were, therefore, older than male colleagues studying in the Oxford School of Geography who arrived immediately after their initial B.A. degree (Clegg was 35, Reynolds 31 and Barker 28). This was a feature of the student make-up until after 1923 when the first women to matriculate for an Oxford degree in 1920 had completed that course (Fig. 7.4).

Fig. 7.4 Average age on entry to Oxford School of Geography by gender and year, 1901–1938



As well as establishing the Diploma in Geography as a recognised qualification in the subject which enabled students to become the specialist teacher in secondary schools, the Oxford School of Geography also provided a forum for the professional development of geography teachers by holding biennial Summer Vacation Courses between 1902 and 1932. It had continued to do so throughout World War I but with the introduction in 1932 of the Geography Honours Course leading to B.A. and the phasing out of the Diploma by 1939 the emphasis in Oxford gradually moved away from a direct connection with the teaching profession.

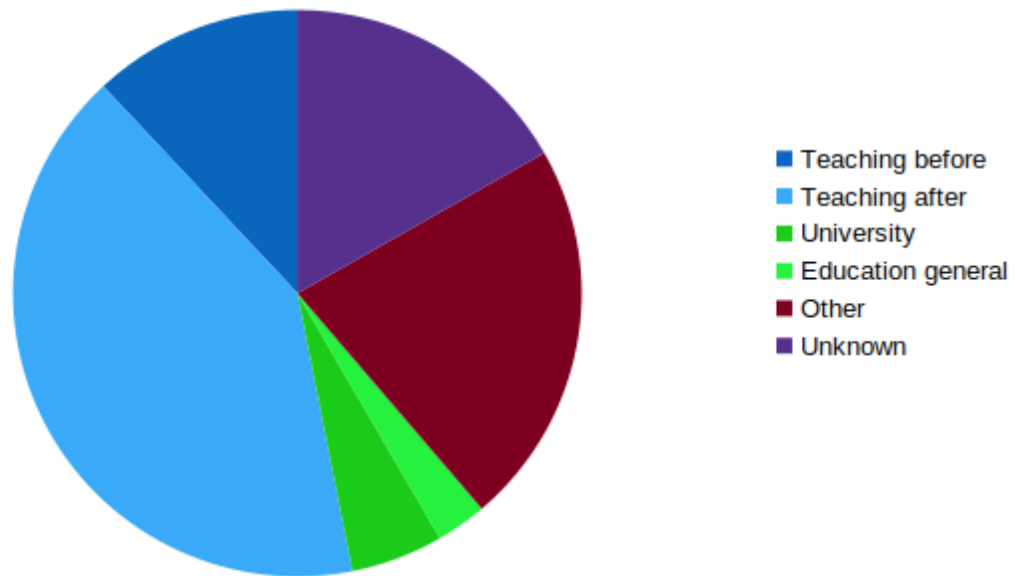
7.10 Teaching careers of Oxford Geography Diploma students

The courses at Oxford were actively supported by the RGS as a means of enhancing the status of geography within the school curriculum and were, therefore, specifically aimed at those who either were already pursuing, or intended to follow, such a career path. Initially the diploma course was offered as a two year post graduate qualification, although it was possible, from 1906,

to complete the course in a single year. If sufficient academic proficiency could be demonstrated then the requirement of a previous degree was waived. This made the Oxford courses attractive to women before they were enabled to become full members of Oxford University in 1920 (Baigent *et al.* 2020: 50–54). The certificate course was introduced in 1904 and was designed to be a preliminary qualification to the diploma course and last one year. In practice students were able to complete the certificate course within two terms and the diploma course in the third term of the same academic year; the compulsory ‘regional description’ was undertaken at the end of the first year with the relevant qualification awarded in the autumn. In practice the separation of the certificate and diploma course also meant that some students only acquired the certificate qualification to no detriment to their subsequent teaching careers, e.g. Reginald Horace Felton (1883–1970, certificate 1906) and Hugh Alban Saunders (1877–1964, certificate 1904).

423 students completed the certificate and diploma courses between 1906, when the ‘Geographical Description of a selected area’ was introduced as a compulsory part of these examinations, and 1939, when the last student was examined for the diploma; 254 (or 60%) of the diploma descriptions between 1906 and 1939 survive of which 180 have illustrative material. Of these 254 students 172 (c. 68%) are known to have pursued teaching careers in either secondary schools, both council-run (state) and private, including public, schools, or teacher training colleges.

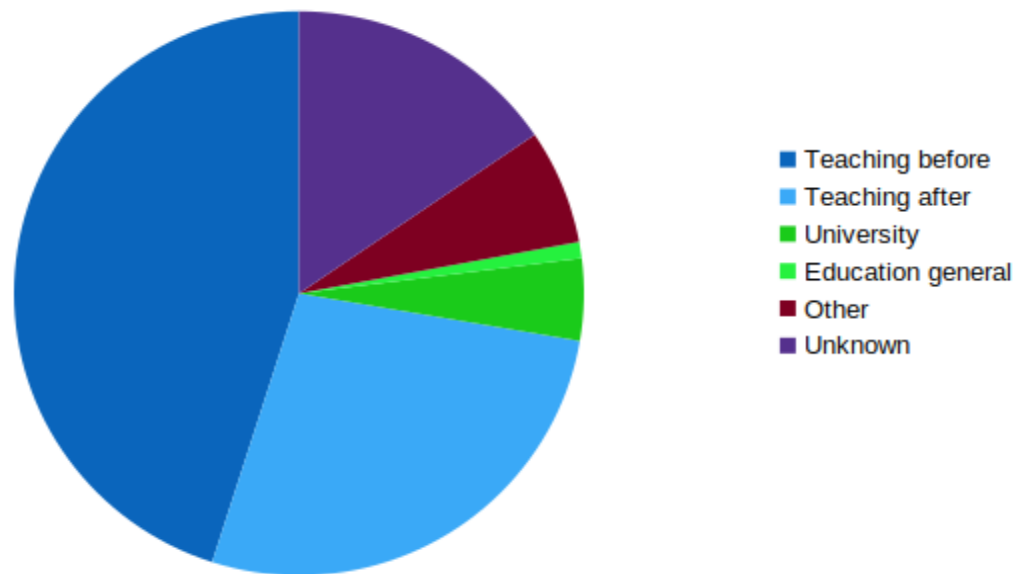
Fig. 7.5 Careers of male students⁹⁸



For male students the emphasis, prior to my research, has been to look at those who pursued careers within academe, e.g. Charles Bungay Fawcett (1883–1952, diploma with distinction 1912), John Norman Leonard Baker (1893–1971, diploma with distinction 1922) and George Henry John Daysh (1901–1987, diploma 1923) rather than those who practised their pedagogy within the broader educational milieu (Freeman, T.W. 1982; Steel 1995; Forster and Edwards 1966).

⁹⁸ The numbers for this diagram are: Teaching before diploma: 25; teaching after: 86; university: 11; general education: 6; other: 46 and unknown: 35; total male students investigated: 209.

Fig. 7.6 Careers of female students⁹⁹



Some female students have previously had their careers investigated, for example Joan Berenice Reynolds (diploma 1901), Dorothy Mary Forsaith (diploma 1912) and Marie Bentivoglio (diploma 1924) (Baigent *et al.* 2020), Mabel Mary Barker (diploma 1913) (Maclean 2014) and Eva Germaine Rimington Taylor (diploma 1908) (Clout and Maddrell 2012). Charlotte Alner Simpson (diploma with distinction 1910) together with Edith Marion Coulthard (diploma 1911) and Gladys Maud Marten (diploma 1912) were discussed by Maddrell who also looked at the work of Ellen Jenifer Rickard (1873–1963, diploma with distinction 1908) but unfortunately Rickard’s description has not survived in the archive (Maddrell 2009). Likewise, the description of Hilda Bessie Pritchett (1892–1985, diploma 1920), whose work

⁹⁹ The numbers for this diagram are: Teaching before: 98; only teaching after: 59; university 10; general education: 2; other: 15; unknown: 29; total female students investigated: 213.

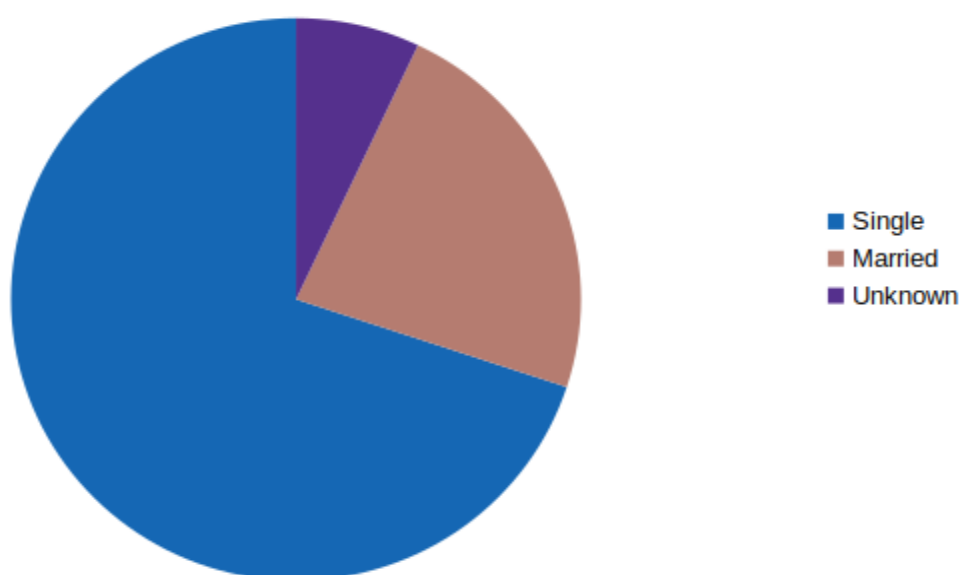
on agriculture and soils for a geographical survey of a part of Yorkshire was reported to the Geographical Association in 1926, is also not extant in the archive (Anon. 1926: 365).

A comparison of Figs. 7.5 and 7.6 reveals not only the greater proportion of women who had scholastic teaching careers but also the higher proportion who had already commenced their careers and were acquiring further qualifications, mainly the diploma, in order to further their employment prospects. The figures also reveal the greater possibilities of employment outside the educational sphere for men. These opportunities included the Colonial Service and at least three Oxford Geography students followed this career path in which an ability to objectively view the country could be an advantage (viz: Norman de Lancey Davis (diploma 1907) ADC died in British East Africa in 1911 aged 28; Edward Elwell Potter (diploma 1911) ADO died in Nigeria in 1918 aged 30 and Folliott Hugh Blakelock Sandford (1889–1959, certificate in regional geography 1912) Provincial Commissioner, Western Province, Uganda).

However, it is only on analysing the biographical details of the students that the impact of societal pressures as well as the implementation of ‘marriage bars’, to conform to those societal pressures, reveal themselves in the marital status of the female students (see Fig. 7.7). For those female students who entered the Oxford School after 1920 and subsequently married after an interval of several years it is currently impossible to determine

whether they taught in the intervening period. Nationally, within England and Wales, the ‘marriage bar’, that is the requirement for women on marriage to resign from their teaching position, was only officially removed by the 1944 Education Act.

Fig. 7.7 Marital Status of female students¹⁰⁰

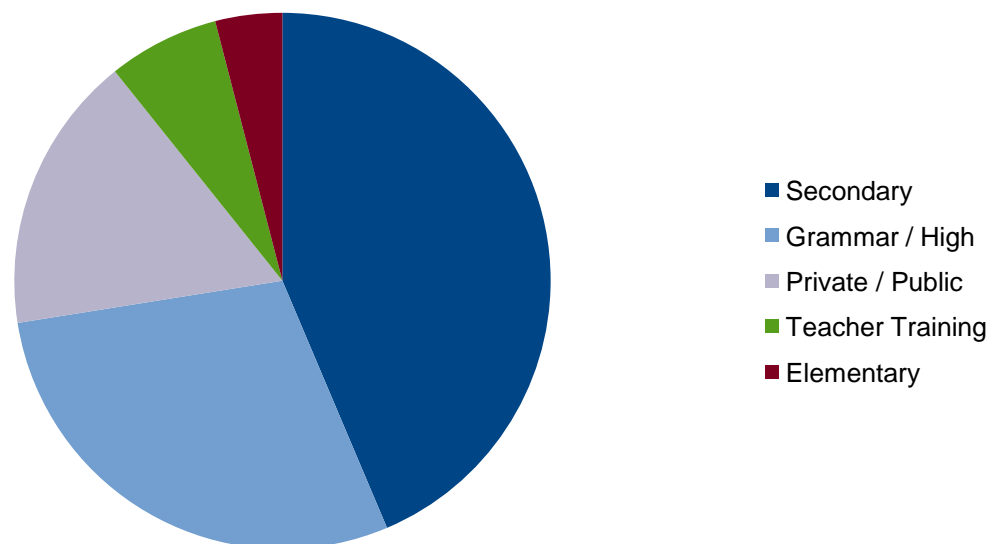


In the epigraph from Mackinder which opened this chapter, he referred to both secondary schools, for pupils aged over 11 to at least 16, and elementary schools. In 1903 this referred to schools catering for pupils up to age 11 but also some which extended this to a leaving age of 14 (see Keating 2009a and 2009b for greater detail, references to the inclusion of geography in the curricula are included in these papers). Until the 1944 Education Act elementary did not, necessarily, equate to primary which now means education only until the age of 11. Fig. 7.8 shows the distribution of types of scholastic

¹⁰⁰ The numbers for this diagram are: Single: 150; married: 50; unknown: 13.

establishments in which the Oxford geography students taught. Grammar schools (boys) and high schools (girls) are separated from secondary schools although they catered for the same age group because, in most instances until at least 1918, and the Education Act of that year, they were not state funded.

Fig. 7.8 Types of British educational establishments in which careers were pursued¹⁰¹



7.11 Overseas Careers

In the discussion above, about the role of geography in education, it was noted that one aim was the creation of ‘good’ citizens of the empire as well as the home nation. Mackinder, the first director of the Oxford School of Geography, in his work with COVIC, which was discussed in chapter 5.2, was

¹⁰¹ The numbers for this diagram are: Secondary schools: 65; grammar or high schools: 43; private or public fee-paying schools: 25; teacher training establishments: 10; elementary schools: 6; total number of establishments identified: 149.

a promoter of visual education, but more particularly as a means of taking a ‘just impression’ of the motherland to colonial children (Mackinder 1911: 79–80).

From Table 7.1 it can be seen that, although the majority of Oxford School of Geography diploma students, whose descriptions are extant, and who pursued teaching careers did so within the British Isles only 23, or some 12.5%, did so overseas. Canada attracted nearly a fifth of these, thereby fulfilling the expectation voiced that “Canada was very fortunate when on occasion a university-trained geographer from Europe would emigrate and teach in a Canadian school” (Warkentin and Simpson-Housley 2001: 288). However, only one student emigrated there on a permanent basis and interestingly neither Australia nor New Zealand feature as a destination. The male who pursued a career in Siam (Thailand) was a national of that country who studied at Oxford under a Siamese Government scheme.

Those who had careers in the Indian sub-continent often already had connections there via official colonial or missionary family members. Half of those with overseas careers pursued them in South Africa and the fact that more than a half who went there were women bears out Bell’s work on the attractiveness of this country for professional women who usually remained single (Bell, M. 1995).

Table 7.1 Overseas careers by country and gender

Countries		
Canada	4	3M + 1F
India	5	2M + 3F
South Africa	11	5M + 6F
Sri Lanka	1	M
Sudan	1	M
Thailand	1	M

This group of former Oxford School of Geography students included three who authored school texts: Evelyn Mary Oswald (1878–1939, diploma 1909), who was possibly the first woman to avail herself of the re-opened fellowship of the Royal Geographical Society in January 1913 (Bell, M. and McEwan 1996: 310), James William Nankivell (1903–1979, diploma 1931) who founded the Cape Town Geographical Society and Arthur Henry Slee (1883–1973, diploma 1923). However one, Dorothy Rose Robson (1895–1970, diploma 1921), had a prior connection to South Africa as she had obtained a degree from the Cape University and had been awarded a 2-year scholarship from the South African Education Department to study in Oxford.

As far as can be ascertained, none with overseas careers were involved with the League of Empire’s exchange scheme (Crutchley 2015) nor were they female head teachers (Goodman 2002). Some did serve in a colonial capacity, e.g. Irene Helen Lowe (1890–1985, diploma 1921) was an Inspectress of Girls Schools 1922–1926 in the Madras Presidency before becoming the Deputy

Directress of Public Instruction there and Lionel Henry Wynn Sampson (1880–1963, regional certificate 1909) worked for the Government Education Department in Colombo, Ceylon from 23rd September 1909 until 1938.

7.12 Onward Transmission

Unlike those students who pursued a career in academia, those who had scholastic careers rarely wrote upon the subject of the discipline. Reference has been made above to some of those who did but, to date, only seven have been found who wrote geography textbooks. The onward transmission of the visual literacy acquired by the students of the Oxford School of Geography is best exemplified by Leslie Brettle (1896–1983, diploma with distinction 1922). During his teaching career he authored two school texts (1927, 1931 with 2nd ed. 1938) which taken together detail how the scrutiny of a photograph taken in the field can enhance geographical knowledge. It should, however, be noted that in his 1931 text he acknowledged that his wife “wrote the greater part of the manuscript and read the proofs” (Brettle 1931: viii). He had married an assistant teacher at the Blackburn Girls’ High School, Ida Consitt, in 1925 but no records exist as to her subject speciality.

In his books Brettle concentrates on the use of photographs noting in his second publication that:

“Pictures are as invaluable sources of information as maps. Although compared with maps they are easier to understand the technique of picture reading, like map reading, needs to be acquired if full use is to be made of them.” (Brettle 1938: 4)

His first publication, targeted at junior classes aged from 7 or 8 to 11, he described as providing an “instructive introduction not only to the technique of picture reading, but also to a more critical observation of actual scenes at home and abroad” (Brettle 1938: 428).

On a first reading of *Geography through pictures* it would appear that the illustration of a London street (Brettle and Littlejohns 1927: 48) is simply a drawing of the scene by the former art master at the school where Brettle was geography master. However, in *Social and economic geography*, which assumed that its readers had reached ‘matriculation’ standard aged 15+, the identical scene is reproduced from a personal photograph by Brettle (Brettle 1931: 435). Both books present the reader with a series of questions with which to interrogate the illustration, the later text also presents a pro-forma questionnaire to aid pictorial analysis. In his introduction, Brettle claims that “the right use of good pictures ... comes nearer to the ideal way of solving the problems of human geography than map work and reading” and that the relationships between geographical facts so presented can be “established only by critical observation and inference” (Brettle 1931: 3). The two personal photographs that Brettle analyses (Brettle 1931: 31, 435) display the importance of disciplinary vernacular photography in geography and therefore lead to a new appreciation of both this type of photography and the place of the visual in geographical knowledge making. For each photograph he also

provided a map of the same area so that the two modes of visualization could be linked.

J.B. Reynolds in her *World pictures: an elementary pictorial geography*, in which she aimed to “train a child to read pictures intelligently” (Reynolds 1901b: 3), used photographs from commercial photographers, including Frith, G.W. Wilson and the Photochrom Co., as the source for some of her illustrations, although the majority are not fully referenced. These commercial companies were also the source of postcard imagery used by the diploma students and discussed in chapter 6.6.

In addition to personal photography geography teachers were encouraged to make use of a wide range of photographic sources including commercial photographers and the publicity departments of railway companies (Simmons 1908: 269; Jones, W.D. and Sauer 1915: 522). In their 1934 book, published by Maskew Miller in Cape Town, *Southern Africa: the land and its peoples*, Nankivell and his co-author Herbert Hutchinson (geography diploma, London) credit half of the 68 photographs used to the South African Railways Publicity Department, the head of which also served as the ‘lanternist’ for the South African Geographical Society (Muller, J. 1953: 13–14). They also called on a colleague of Hutchinson at the University of Cape Town, Robert Stephen Adamson, the Professor of Botany who provided a further third relating to the natural vegetation and plant associations from his personal collection. Both Hutchinson and Adamson were also on the Council

of the Cape Geographical Society. Similarly, Oswald acknowledged with “gratitude the Railway Department of the Union Government for permission to use some of their valuable photographs” in her text (Oswald 1916: ii).

7.13 Conclusion

Mackinder’s remarks in 1903 which opened this chapter were echoed by the president of the RGS when he addressed the Royal Scottish Geographical Society in 1906 and stated that:

“The most important function of the University teacher of geography [...] must be to produce a considerable number of good secondary teachers of the subject, and to establish a tradition of geographical school teaching.” (Goldie 1907: 12)

This chapter has explored how geography teachers, who were the product of the Oxford School of Geography between 1900 and 1939, took the various components available for visual recording of observations and applied them within the classroom. In the period under consideration, the camera became an increasingly available and accessible piece of equipment to both the amateur and professional with which to record what was observed in order to assist in the development of an ‘eye for country’ in the transmission of geographical knowledge to school pupils.

The list of publications by those students who pursued teaching careers is not extensive as evidenced by only seven former students writing textbooks. By publishing her work in the *Geographical Teacher*, Isaac foregrounded to other teachers the value of photography whilst Ethel Elizabeth Feather (1885–1975, diploma with distinction 1918) showed the value of personal but

directed observation in the field which included the female pupils contributing photographs to the overall project (Feather 1922).

In the era before World War II, the principal paradigm within geography was the concept of the region and Oxford continued to be a proponent of this into the second half of the twentieth century. A more generalised aspect of this paradigm was the production and application of the regional survey (Matless 1992). The camera was an important tool to be used to re-present the region. All aspects of the available photographic products were to be utilized, “photographs, old and new, ground and aerial, picture postcards and lantern slides” (Fagg and Hutchings 1930: 127). As was revealed in the previous chapter, the Oxford diploma students took full advantage of all of these products, and it continued to be taken when they pursued their scholastic teaching careers.

The lack of much direct evidence, in the form of published articles, etc. by former Oxford students, has led, here, to a more general consideration of the transmission of geographical knowledge in the British educational system in the first half of the twentieth century. However, an examination of the contents of the principal journal focused on school geography education, the *Geographical Teacher*, later *Geography*, has highlighted the recurring theme of the value of field or outdoor work and the subsequent visualization of the results of that work. The urging of the writers in this journal would assist in the promulgation of the visual literacy that the Oxford School of Geography

students had acquired during the course of their studies there. The taking of carefully considered photographs in the field and their reconsideration later enabled the former Oxford students to cascade their training of not only ‘seeing’ but by seeing to ‘know’ down to their future pupils. As the American geographer Carl Ortwin Sauer (1889–1975), in his advocacy of the use of the camera during field work, remarked “views [i.e., photographs] are of as much importance as notes” (Jones, W.D. and Sauer 1915: 522). By encouraging pupils to take their own photographs teachers engaged their pupils in the active creation of geographical knowledge which allowed for a more efficient learning of theoretical concepts (Fraile-Jurado *et al.* 2019: 24). The schoolroom, therefore, becomes a second site of transmission and forms the base of a pyramid of transmission which descends from the academic lecturer and their use of the photographic lantern slide in the first site of transmission, the university lecture theatre, via the students’ own production of geographical knowledge in their fieldwork (Fig. 7.1).

Chapter 8

Conclusion: Developing an ‘eye for country’

“You’re not born with an eye, you must develop it, and that comes with a lot of legwork” (Lack 2025)

*“It’s not what is in front of the camera, it’s how you look at it”
(Rankin 2021)*

The first epigraph to this concluding chapter comes from a recent interview with the art historian Tiqui Atencio. In that interview she discussed how one can acquire an appreciation of art and her journey to that appreciation. The epigraph summarizes her thoughts on that acquisition. As such it resonates with my exploration, in this thesis, of the role of both fieldwork and photography in the production of geographical knowledge. The role of fieldwork and its associated ‘legwork’ involves an acknowledgement that by empirically observing and then interpreting those observations, by getting ‘mud on your boots’ (as has been ascribed to the methodology advocated by the English local historian W.G. Hoskins), then a greater understanding of the interplay between the physical and the human landscape can be attained. However, legwork in the field was not always possible and it is then that the photographic image comes to the fore.

Primary Research Question of the Thesis

The primary question which my research set out to answer was: ‘Did photographic imagery play a significant role in the production and

transmission of geographical knowledge in the Oxford School of Geography before World War II?’ I have shown that this was indeed the case in my detailed examination of two archival collections of such imagery. In the introduction to this thesis, I noted two recent comments by Joan Schwartz in relation to photographic imagery. These related, firstly, to the questions that can be asked of such material (Schwartz, J.M. 2020a) and, secondly, to an imperative of returning to the material in order to understand its context (Schwartz, J.M. 2022).

By questioning the photographic imagery found in two archival collections within the Oxford School of Geography I have sought, following Schwartz, to examine the content, audience(s) and intention of the imagery. I have, also, returned to the context in which photographic imagery was both created and employed in the production and dissemination of geographical knowledge in the early twentieth century. The collections investigated were the glass lantern slides used, from 1900, by the School’s academics in their lecturing and imagery presented by the students in their compulsory regional description submitted for examination in the Diploma in Geography between 1906 and 1939.

In 2016, Hayes noted that “no previous historical geography has yet established a methodology for analyzing lantern-slides; nor are there any studies of single, large lantern-slide collections associated with a single institution, nor studies that situate lantern-slides in relation to academic

geographical discourses” (Hayes 2016: 142). My thesis has taken up the challenges posed by Hayes, in particular by looking at a single institution and its relationship with the promulgation of geographical knowledge. In this regard, I have investigated a specific relationship between photographic imagery and its role in geographical teaching, both in a university context and a secondary school milieu.

Empirical Questions which flow from the Primary Question

The first site of production has been located within the glass teaching slide collection so that from the main question flows the empirical question of: ‘Who produced the photographic images used by the academics in the Oxford School?’ My examination of this archive, detailed in chapters 4 and 5 and reprised below, has provided an illuminating answer. Chapters 4 and 5 also provide insights into a further empirical question, namely: ‘What use was made of photographic imagery by early Oxford geography staff?’ The extension of this empirical question to include the students use of photographic imagery in the second site of geographical knowledge production was addressed in chapter 6.

Methodological Questions which flow from the Primary Question

However, from the primary question also flow various methodological questions around ‘What are actual and desirable practices concerning photographic images in geographical archives? and ‘How can visual sources be used to enrich geographical enquiry? During my research period, the early

twentieth century, the teaching of how to look in a disciplinary manner was integral to the promulgation of geographical knowledge. As the academic discipline of geography has evolved since World War II, the emphasis on the scrutiny of visual sources has declined so that in disciplinary histories their role has become understated.

My research has also demonstrated the value of considering a range of biographical genres, that of the object, the group or collective and the institutional, in order to provide an enriched assessment of the material to be found in university and departmental archives. This will continue to be the case provided that the value of material perceived to be either outmoded technologically, e.g. the glass lantern slide, or outmoded paradigmatically, e.g. the regional description, is recognized. I have shown in this thesis that there is, indeed, much value in revisiting such apparently outmoded material. It, therefore, becomes imperative that such material is recognized for its worth and attention is given to its correct storage and accessibility.

There are further methodological questions which flow from the primary question of the significant role played by photographic imagery in the production and transmission of geographical knowledge before World War II. These concern 'the opportunities and limitations offered by biography (individual and collective) as a method in geographical research' and the advantages and challenges of a study which focuses on entire cohorts of

students rather than selected famous academics. These questions were primarily addressed in chapter 7 and are revisited below.

In the introduction to this thesis, I drew attention to the lack of research into this specific relationship. I noted that, although there had been research into geographical textbooks per se, as well as into the pedagogical use of geographical models, the use of photographic imagery in this context had been neglected. By investigating part of the photographic archives within the Oxford School of Geography my research has developed an approach to the history of geography which considers the daily routine of a university department. In this regard, my inclusion of the student body's use of the photographic highlights a hitherto neglected aspect within geography's disciplinary history.

In order to be able to answer the questions posed by, and understand the context of, the employment of photographic imagery within the dissemination of geographical knowledge, I had first to create two extended spreadsheets which catalogued that imagery. Those large spreadsheets are presented in Appendices 1 and 2. In that process, which was time-consuming owing to the amount of material present and the lack of supporting documentation, I followed Gunderman's plea to render the contents of the archives F.A.I.R., i.e. Findable, Accessible, Interoperable and Reusable (Gunderman 2020). This plea is particularly pertinent as she based it upon the case studies of two large historic landscape photograph collections. It also begins the process of

rendering these archival collections both visible and exploitable. This process has already begun in the re-photography project within the HEIR project but much more remains to be done. As yet, less than 1% of images from the geography archives have been subjected to this aspect of exploitation. As the locations are revisited and re-photographed the images will acquire the potential for altered interpretations and sensations. Such exploitation relies on the continued existence of the original image location but also allows for the presence of ‘lost vistas’ and the necessity to explain such loss whether by natural or human agencies.

My research has developed part of the Oxford School of Geography slide collection into an archive by my creation of the extended spreadsheet in Appendix 1 which catalogues in detail the contents of that part. The majority of this collection awaits future cataloguing to similarly transform the contents. Likewise, the creation of Appendix 2 extends the library collection of early student regional descriptions towards a more meaningful archive which awaits further research. Without the construction of the databases presented in the appendices the research into the content, audience and intention of the photographic imagery contained within the Oxford School of Geography archival collections would not have been possible.

As the International Council on Archives has elaborated in their discussion of ‘what is an archive?’ such collections are not, necessarily, created deliberately {<https://www.ica.org/discover-archives/what-are->

[archives/](#)}. This is certainly true for the Oxford geography photographic collections which have arisen in an *ad hoc* manner through departmental practices and decisions taken by departmental library staff. In this respect university departmental collections, amassed in response to pedagogical imperatives, can become archives as technological advances are perceived to render analogue items obsolete. However, there also needs to be an awareness of the value of such material, not only within the department but also within the broader university context. Such an awareness should ensure that spatial and other pressures are not invoked as a reason for the disposal or even destruction of the material as it moves from useful currency to disregarded artifacts. This is applicable to not only glass lantern slides but also to hard copy items such as maps and books. The intermediate, between the slide and the 'PowerPoint', imagery of the overhead projector transparency is an area which has received no attention to date and which could profit from decisions to collect and archive such material.

My approach is also pertinent in that it addresses a lacuna within conventional library cataloguing which subsumes illustrative material to the text in which the imagery is located. The construction of Appendix 2 foregrounded the photographic imagery in the students' work and its presence will enable future researchers to consider the extension of the literate text into the visual in such areas as biogeography. The time period involved in the archives, namely the early twentieth century, will, also, enable future

longitudinal research to be conducted in the specific areas surveyed by the students, in particular with regard to social conditions and urban expansion. It also means that, because assigned tags / keywords, detailed in Annexe 1, are within each database they can be used for further work by future researchers who will be aware of the content before they interrogate the archives more directly. My thesis, therefore, has not only scrutinized archival material with regard to its former contemporary use but also provided the means by which future researchers can exploit this resource.

The Variety of Photographic Genres investigated in this Thesis

Throughout chapters 4, 5 and 6 I have demonstrated the role that popular visual culture played in the creation of geographical knowledge. Such cultural borrowings as picture postcards were examined in chapter 6. But for chapters 4 and 5 I presented, in Appendix 1, the results of the close and systematic examination of each individual glass lantern slide present in the teaching collection section of the entire slide archive of the Oxford School of Geography. By attending not only to the content of each slide but, more particularly, to the source of each image I have revealed the trans-genre nature of a constructed collection, now situated within an archive. The analysis of these sources enabled me to construct, following Appadurai (1986), biographies of a small sample from the collection. This attention to the varying contexts, depending on the intended audiences, highlights a fruitful field of research within not only the history of geographical education but also

the history of popular visual culture. Such close attention to archival photographic contents is a methodology which could be employed in other departmental collections. This would lead to a greater understanding of the historiography of geography as the source material is assembled and synthesized into a logical pattern so that it can be transmitted to a modern audience. This would also ensure that the value of such collections was fully realised.

In particular, I noted the re-use by Oxford geography academics of imagery originally intended for popular entertainment lecturers who were provided with a script to accompany the slides. Although within the Oxford School of Geography archives there is a lack of lecture notes and transcripts it became possible to highlight the proscriptive nature of the published popular lecturers' notes vis-a-vis the freedom of the academics to 'talk to', and, therefore, to interpret an individual image according to the content of their lectures. The revelation of the mobility of images across audiences, as well as genres, such as the cigarette card, demonstrates the initial eclectic sourcing by the Oxford geography academics for illustrative material to accompany their lectures. Other archival collections may well include lecture notes and transcripts which would enable a greater correlation between the imagery available for projection and the verbal discourse it was intended to illustrate.

That such eclecticism was necessary in Oxford reveals the lack of opportunity for overseas travel in a very small group of academics expected to

teach a geography covering the globe which holistically integrated both the physical and human aspects of the discipline. I noted, in the literature review, that other disciplines, such as archaeology and anthropology, were more proactive in facilitating travel in order to provide suitable imagery for academic lectures (S. Crawford, pers. comm.; Edwards, E. 1984). Geography at Oxford suffered by comparison with these disciplines, which were also highly attuned to the visual. My research has revealed the frequent complaints made by geography academics that a proportion of their visual material had to be culled from books. The distillation, in Annexe 2, of the data from Appendix 1 confirms that over a quarter of the teaching slides created before 1940 were sourced in this way.

That such travel restrictions were circumvented by exploiting other sources of visual imagery is but one of the results of my close examination of the Oxford School of Geography teaching slide collection. It remains for others to similarly scrutinize such collections in other departments in order to elucidate whether this was a general trend or specific to the Oxford context.

The lack of opportunity to travel is, also, revealed by the small amount of personal photography taken by the Oxford academics during the period under consideration to support their lectures. However, the presence of even only 6% of the total number of photographic images taken by incumbent staff members has enabled an investigation, following Kaplan *et al.* (2000), around the evolution of a disciplinary vernacular photography within geography. Such

a mode of photography has been defined as imagery derived from direct personal experience in the field by exponents of a discipline. From the late nineteenth century, the camera became an increasingly available and accessible piece of equipment to both the amateur and professional with which to record what was observed. Thus, by embracing the role of the non-professional photographer whilst simultaneously bearing in mind the geographical purpose of the resulting image both those academics whose field images are extant and the diploma students showed that they were constructing a specific vernacular photography. However, much more research could be undertaken in this area to determine the growth of this aspect of disciplinary imagery before World War II.

By attending not only to the taking of photographs in the field but also to the end use within the specific community of geography practitioners I revealed that such imagery became a constructed knowledge within the discipline. After 1945, and, therefore, outside the remit of this thesis, the greater opportunities for travel as well as the continuing developments in photographic technology, now well established in the digital age, have continued to shape geographical pedagogy. However, the digital age may present future researchers with difficulties as access to such imagery may not be straightforward in addition to a loss in understanding the context in which it was created.

An ‘Eye for Country’

The development of a specific disciplinary vernacular mode of photography noted above is encapsulated in the continued use of the phrase “an eye for country”. Throughout my research, I have elucidated the various components of the geographical skills toolkit by which practitioners could translate their observations in the field into geographical knowledge. Such a skills toolkit is no less relevant for the practitioners of geography today. As the 2019 Ofsted Education Inspection Framework emphasised, in subjects like geography, what was required was the “specialist knowledge, understanding and skills required to teach and learn” those subjects (Kinder and Owens 2019: 97). Equally, the continuing importance of the neighbourhood field trip as a pedagogical practice engaging with ‘everyday’ geographies was recently emphasised by Alcock (2022). By engaging with the promulgation of the geographical knowledge embodied in these practices I have engaged with a more everyday or quotidian history of geography.

By the use of various pedagogical practices, including the outdoor field trip as well as the visual component of academic lectures and school lessons, the university lecturer and schoolteacher sought to develop in their students a geographical ‘eye for country’. I have explored this concept throughout my thesis and noted that in order to acquire an understanding of the interconnectedness of the physical world with the human environment the geographer was expected to engage in informed or objective observation. I

have, also, noted that the term ‘country’ refers to the landscape or topography or terrain presented to the viewer, rather than a political unit. The geographical ‘eye for country’ can, therefore, be considered as a way of looking at a landscape in a very subject orientated manner so that the ‘looking’ becomes geographical ‘observation’. It remains for others to connect the ‘eye for country’ with the more recent ‘geographer’s gaze’ — in particular with regard to the photographic image.

In the introduction to this thesis, I drew attention to the notion, in the nineteenth century, that photography was an objective recording technique as its mechanical origins moved it beyond the fallibilities of the human eye. This perception of photography allowed the belief to emerge that “representation achieved parity with direct perception” (McQuire 1998: 29). Hollman, in her consideration of the use of lantern slides in Argentinian schools, noted that “almost 800 slides make up the geography sub-collection with different types of images such as photographs, maps, illustrations, graphics and charts [...] the former is the predominant type of image” (Hollman 2016: 7). In my analysis of the lantern slide collection, distilled in Annexe 3, I revealed that 65% contained photographic images. This figure, thus, displaces the map as the overall predominant visual image projected during academic lectures.¹⁰² In her analysis of the lantern slides in the RGS collections Hayes noted that

¹⁰² However, a close examination of Annexe 3 reveals significant variations in the proportions depending on the topic involved.

“photographic lantern-slides generally depict physical geographical subjects such as landscapes instead of figurative human subjects” (Hayes 2016: 195) and this is also true for the imagery present in the Oxford School of Geography’s collection. Such findings call for a reassessment of the role of the map in the history of geographical education.

With such a concentration on the utilitarian presentation of a landscape one is led to an endorsement of Driver’s proposition that “integral to the theory and practice of geographical knowledge” is the “thinking about what to observe and how to observe” (Driver 2003: 227). This proposition can be encapsulated in the phrase “an eye for country” and my research has sought to investigate how such a fundamental praxis of the discipline was transmitted. Even before he arrived in Oxford Herbertson was asserting that in addition to the aural lesson “the eye must be trained as well” (Herbertson 1896a: 579). This aligns with the comment made in 1906 by the Edinburghian professor of education that “by the use of models, of pictures, of lantern-slides, and other concrete means we may widen the intellectual horizon of the child” (Darroch 1906: 489). Some have looked at the role of the atlas in British education (McDougall Waters 2014) whilst others have investigated the role of the model in the dissemination of geographical knowledge (Ploszajska 1996; Tobin *et al.* 2024). However, the role of the photographic, in particular the re-use of genres from popular visual culture and the development of a

disciplinary vernacular, has received less attention. A lack which I have addressed in my research.

The analysis, derived from the data presented in Appendix 2 and presented in Annexe 4, of the imagery incorporated into their regional descriptions by the diploma students revealed, firstly, an extension of the disciplinary vernacular, as evidenced by the incorporation of their personal photographs. Secondly, and almost as numerous, was the students' appropriation of a particular popular visual genre. This genre was the view postcard. Historical geographers have, hitherto, paid attention to another popular visual genre, the lantern slide (e.g. Hollman 2016; Hayes 2016; Kessler and Lenk 2022), but not to the pictorial postcard within a pedagogical context. By highlighting this neglected genre, my research has expanded the range of visual material available to practitioners of the discipline. There remains further work to be undertaken to investigate this appropriation, in particular with regard to its use within the school classroom.

An Everyday History in parallel to a Canonical History

By investigating part of the photographic archives within the Oxford School of Geography, my research has developed an approach to the history of geography which considers the daily routine of a university department. The first three empirical chapters, 4, 5, and 6, were all predicated on the everyday usage of the lantern slide in academic lectures and the ready availability of photographic imagery used by the students to illustrate their examined

fieldwork. This, then, forms the basis for a consideration of a parallel history of the discipline which occurs alongside the canonical approach. In furtherance of this parallel approach, I extended the consideration of the transmission of geographical knowledge to a second site, the secondary school classroom, which I discussed in chapter 7.

This thesis has presented an enlarged disciplinary history beyond the canonical. Yet a history that has shown the interconnectedness of the everyday with the canonical. For the Oxford School of Geography, this is both a 'small' history and one which plays out in a broader context as the paradigm of regional geography was promulgated by the students in their subsequent careers. I have, in my research, concentrated on the students with careers in secondary schools but a number of students also went on to have university careers and these, and their contribution to the wider discipline, have been memorialized elsewhere.

Thus in order to consider the onward transmission of the geographical knowledge generated within the Oxford School of Geography, I moved beyond the departmental photographic archives to a consideration of the careers of the students. This necessitated a detailed and time-consuming interrogation of national genealogical archive material to construct mini-biographies for 60% of the diploma students and which is presented in Appendix 3. From this data I was able to ascertain that over two thirds became schoolteachers and I presented my findings in a series of graphs in chapter 7.

By concentrating on the student body I have brought to the fore a junior group within the university so that “previously hidden, unfamiliar, and mundane aspects of [the] creation and dissemination” of geographical knowledge can be elucidated (Jöns *et al.* 2017: 656). It is this theme of the mundane and the quotidian or everyday that has emerged from my research. It is, also, a theme which deserves greater attention in studies of geography’s history.

As Bruinsma has noted that when engaging with canonical histories:

“Professional, established academics are central in many narratives, and while some historiographies emphasise geographical knowledges [...] the group of student-geographers [...] being the main ‘practitioners’ of geography vastly outnumber professional academics, and they not only consume knowledge but also reproduce it.”
(Bruinsma 2021a: 297)

However, unlike the later collection in Glasgow, where sixty years of disciplinary trends and intellectual change can be examined (Bruinsma 2021a), the Oxford collection presents a uniformity of approach. This enables a linkage between the everyday experience of the student body in the lecture theatre and the student’s individual experience of working in the field to be assessed. By concentrating on the photographic imagery presented by the student body the production of geographical knowledge is extended to include those without a prominent academic profile. By further extending the transmission of knowledge beyond the university I have, also, brought to the fore what could be considered as a neglected pedagogical group, that of the specialist schoolteacher rather than those that pursued a university career. This investigation of the student body, also, engages with and enlarges upon the biography of the institution, the Oxford School of Geography.

The Variety of Biographical Genres employed in this Thesis

I alluded to the creation of biographies of objects above. In chapters 4 and 5 I was able to construct such biographies for a small number of the glass lantern slides, although further work in this area would enlarge this corpus and generate more insights into the mobility of imagery. However, I have also engaged with other forms of biography, those more usually associated with people, but the group rather than the individual as I noted above. An emerging biographical genre which I have also engaged with is that of the institutional biography.

One feature of this institutional biography that my research has shed light upon is the interconnectedness of the Oxford School with various national organisations. This was elucidated through the examination of the sources used to construct the School's glass lantern slide teaching collection. The detailed investigation has revealed links with the Geological Photographs Committee of the BAAS, the Central Committee for the Survey and Study of British Vegetation (the forerunner of the British Ecological Society), and, most importantly from a pedagogical standpoint, the Geographical Association. Tangentially the roles of the RGS, in supporting the development of the Oxford School, and the Royal Scottish Geographical Society, in providing a further platform for the dissemination of the geographical knowledge promulgated by Oxford have been noted.

The role of the student body in institutional biographies has not, hitherto, been fully explored in reviews of the histories of geographical departments within the UK, or indeed in universities across the globe. This may be because the time and effort involved in interrogating national as well as local archives requires an extended commitment to both. The specific methodology of the collective or group biography used to construct an overview of the Oxford School of Geography's student body is one that could be fruitfully used in such research.

However, based on genealogical research it should become possible to situate students within the social hierarchy of the English class system. Much more research could, therefore, be done on the social status of Oxford geography students and their subsequent careers and to situate this work within a more general overview of Oxford students in general, Oxford women students in particular and the broader context of geography students throughout the United Kingdom. Although touched on by Eccles, and Curthoys and Howarth who all stressed the benefits of female higher education, in particular with regard to the University of Oxford, as "equipping middle-class women to earn a living as teachers and [thus] protecting them from the risk of downward mobility" (Eccles 2007: 200; Curthoys and Howarth 2000: 572–573) the details of the individuals involved has been largely neglected until now.

Despite being only able to excavate mini-biographies for 60% of the diploma students due to both available information sources and time constraints the resultant sample generated sufficient data to enable overall conclusions to be drawn. Future researchers could, therefore, enlarge upon this work in order to provide a more comprehensive assessment of Oxford geography students. In addition, it might prove possible to extend such an assessment to include the Final Honours School students from 1932, thereby providing a more inclusive overview which could also indicate longitudinal trends.

This aspect of my research has explored a sector of society which is frequently overlooked — that of the middle middle-class. Further scrutiny of the details in Appendix 3, in addition to further research into the life histories of the students may refine this assessment of the principal social class involved. However, all students needed to be in a position to self-fund. In the early years the annual course fees together with board and lodging costs could amount to at least £54. In context it can be noted that the female member of staff in 1906 had an annual salary of £35 (Baigent *et al.* 2020: 64). Whilst other researchers examine those sectors of society at the ends of the spectrum, the working and lower classes and the upper echelons of the elite, those in the middle have been somewhat neglected. This may be due to a perception that this sector of the population can be regarded as almost too mundane and ordinary. This neglect is, also, partly due to the lack of archival and

documentary evidence. However, this sector of the population reflects an increasing proportion of society, partly as a result of the increase in education for women as well as men. An overarching aim of this thesis has been to explore the neglected but interconnected transmission of geographical knowledge and, by examining the careers of the Oxford students, I have cast a light on this under researched sector.

Concluding Resumé of the Thesis

By establishing the predominance of teaching careers for the Oxford diploma students I have been able to construct a pyramid of knowledge transmission. This construct illustrates the movement of geographical knowledge from the very limited number of academics via their lectures and fieldwork classes to the diploma students. The students then demonstrated their reception of that knowledge in the compulsory regional description they presented for examination. This, then, equipped them to further transmit geographical knowledge to the pupils they taught in, principally, state secondary schools. Johnston observed, in his review of the interconnectedness of university and school geography in the mid-twentieth century, that because “geography emerged as an academic discipline in British universities in response to demands for trained teachers of the subject in the country’s burgeoning secondary schools [...] their curricula formed a seamless transition from one to the other” (Johnston, R.J. 2019: 682). My research has looked at the history of the discipline, in the early twentieth century, from the standpoint

of the dissemination of geographical knowledge. I have demonstrated the validity of Johnston's assertion with regard to the continuity of the praxis of the transmission of informed observation in the generation of the 'eye for country'. This has been demonstrated in the emphasis of the Oxford School of Geography's curriculum, and in particular its visual aspects, which were directed towards the much more proximate goal of acquiring and improving skills which could be repeated in the classroom and inculcated in pupils.

Geography regarded itself as not just a theoretical discipline but a practical one in that it adopted and developed a variety of visual methods, surveying for map-making, field sketching and the use of the emerging technology of photography, to engender objective observation in its practitioners and, thus, to 'develop an eye for country'. This involved not only the creation of a disciplinary visual literacy within the academic lecture theatre but more particularly the use of direct personal observation in the field to generate a specifically geographical way of looking at and thinking about a landscape. Because, as Patmore has stated "geography was concerned with the tangible landscape, and an eye for country was the most valued of the geographer's tools" (Patmore 1987: 183).

I have shown in my research how the Oxford School of Geography's curriculum included fieldwork, both in academic-led excursions and in an individual approach by the students in their regional descriptions. Fieldwork, thus, helped to train actual and prospective schoolteachers in the art of looking

with a geographical mindset at a landscape. The students, therefore, were being taught to use an ‘eye for country’ when encountering a neighbourhood and to become ‘informed observers’. By acquiring this mode of visualization and the associated methods of recording their observations, in particular the photographic image and its associated derivatives of the lantern slide and the picture postcard, the students were enabled to transmit geographical knowledge to their own students. My research has, therefore, highlighted the various discourses around knowledge-construction, knowledge-creation and knowledge sharing as discussed by van Aalst (2009). By investigating the photographic imagery present in the Oxford School of Geography archives within the context of a disciplinary discourse I have situated that discourse both within the spaces of production and the spaces of transmission. There has been little attention to the role of specific aspects of the photographic, in particular the appropriation of popular cultural imagery, in the British geographical knowledge arena. Recent attention to the categories of visual material in geographical textbooks (Hilander 2023) is shown, in this thesis, to be an extension of the visual material present in both early twentieth century Oxford archives which I have investigated.

In order to understand the phrase ‘an eye for country’ my research has, therefore, returned to the context in which photographic imagery was both created and employed in the production and dissemination of geographical knowledge in the early twentieth century. As Frizot has stated and Schwartz

has restated photographic images can be regarded as “working objects in their own time” (Frizot 1998: 12; Schwartz, J.M. 2020b: 513). As such I have moved the students’ personal photography from the ‘snapshot’ to the ‘disciplinary vernacular’ and thus, been able to explore the visual culture of geography within the Oxford School of Geography in the early twentieth century. Although outside the scope of this project this move is also evident within the personal collections of academics that constitute the bulk of the total collection and thus reverses the perception of later undergraduates that the visual “shifted from ‘evidence’ to ‘holiday snaps’” (Rose 2003: 219).

By considering the context of the photographic imagery in the Oxford School of Geography collections I have engaged with the demonstration, and therefore, the transmission, of geographical knowledge by both the university lecturer and the specialist schoolteacher. This context, of imagery as ‘working objects’, highlights a quotidian aspect of the pedagogical history of geography and contributes to an understanding of the institutional role in this regard. My research has, therefore, moved the role of the institution beyond the development of geographical theory by a select number of academics to a broader understanding of the generation and dissemination of geographical knowledge, in particular with reference to photographic imagery.

So, did photographic imagery play a significant role in the production and transmission of geographical knowledge in the Oxford School of Geography before World War II? My thesis has argued that this was indeed the

case as the concept of the 'eye for country' emphasized the value of the visual in the developing academic discipline in the UK. This concept was promulgated not only in the academic lecture by the use of glass lantern slides, as shown in chapters 4 and 5. It was also demonstrated in the illustrations which accompanied the students' submitted regional descriptions and which I analysed in chapter 6. The second site of transmission, principally that of the secondary school classroom, was shown in chapter 7 to be of significance as more than two thirds of the students embraced a teaching career.

Throughout my research I have, therefore, endorsed the commercial photographer Rankin's assertion that it is how you look at a landscape that is important to a student of geography as they learn how to develop a geographical 'eye for country'.

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Annexes

Annexe 1: Outline of Keyword Structure

Principal Keyword	Secondary Keyword	Further Keywords
Landforms	Valleys	
(this includes scenery, landscape & topography)	Hanging valleys	
	Waterfalls	
	Floodplains	
	Hills	
	Mountains	
	Caves	
	Plateaux & Plains	(inc. tablelands)
	Coast, Dunes	
	Reclaimed Land	
	Islands	
	Deserts	
Geology	Rocks	Igneous
		Sedimentary
		Metamorphic
	Exposures	Strata
		Erratics & boulders
		Fossils
	Processes	Erosion, Subsidence
		Weathering
		Deposition (glacial moraines & boulder clay)

Principal Keyword	Secondary Keyword	Further Keywords
Geology	Processes	Glaciation
		Volcanic
		Isostasy
		Seismic, Landslides
	Structures	Faults, Jointing, Karst, Unconformities
		Folds, Synclines & Anticlines, dip
		Escarments
		Cliffs
		River Terraces, Raised beaches
Hydrology	Rivers	Confluence, misfits
	Streams	underground
	Springs & Wells	
	Lakes	
	Ponds	
	Estuaries & Deltas	
	Reservoirs	
	(River / stream) Capture	
	Dry valleys	
	Drainage channels & ditches	
	Meanders & Oxbow Lakes	
	Watersheds; River basins	waterparting, water divides
Climate	Droughts	
	Floods	

Principal Keyword	Secondary Keyword	Further Keywords
Climate	Winds	
	Snow & Ice	
	Clouds, Cloud formations	
	Rainfall	
	Temperature	
Vegetation	Woods & Trees	Undergrowth
	Marsh & Bogs	Aquatic
	Moorland	
	Scrub & Heath	
	Grass	
	Coastal	
	Hedges	
	Parkland & Gardens (e.g. Estate / garden landscaping)	
	Plant Associations	
Fauna	Native	Birds
	Captive (inc. Zoological specimens)	
Agriculture	Arable	
		Viticulture, Hops, Fruit, Plantations
	Pastoral	Cattle
		Sheep
		Poultry, Pigs
	Fishing	
	Forestry	

Principal Keyword	Secondary Keyword	Further Keywords
Industry	Extractive	Mining
		Quarrying
		Oil drilling
	Machinery	
	Manufacturing	Chemical
		Ship-building, Iron & Steel
		Textile
		Timber, Clay products (tiles, bricks, pottery)
		Food processing
	Service	Tourism
		Water supply & Power
		Commercial, Markets, Economic
	Rural	Charcoal burning, etc.
Settlement	Towns	
	Villages	Nucleated (inc. green)
		Linear
		Estate, model, planted
	Scattered	(inc. hamlets, single farmsteads, etc.)
Communications	Roads & tracks	Alleys (& passageways)
	Railways & Tramways	
	Canals & Inland waterways	
	Bridges	Fords, Ferries
Transport	Motorised	
	Animal drawn	

Principal Keyword	Secondary Keyword	Further Keywords
Transport	Human Power	(e.g. Bicycle)
	Aircraft	
	Trains	
	Shipping	(inc. boats)
Buildings	Religious	
	Domestic / Vernacular / Agricultural	inc. windmills, barns etc.
	Elite / Aristocratic	(e.g. Palaces, chateaux, country houses)
	Public	inc. Lighthouses, Harbours
	Commercial / Industrial	Factories, pumping engines
	Defensive	(e.g. City Walls, fortresses)
	Building Materials	(inc. roofing materials)
History	Archaeology	inc. Roman, Saxon, prehistory
	Medieval	
Anthropology	Physical	
	Linguistic	
	Political	
	Elite	
Aerial Photography		

Annexe 2: Sources of Teaching Slides by Library Classification sections

Geography Classification	Regional	Number	Missing	Post 1945	Pre 1940	Unknown Pre 1940	%	Diagram Co.	%	Commercial Lecture	Commercial Slide	Commercial Photograph	Total Commercial	%	Outsourced (Holiday)	%	Academic (BAAS, etc)	%	Books	Articles	Maps	Total in house	%	Personal	%
200-210	Great Britain	15	0	3	12	4	34	0		0	1	0	1	8	1	8	0		6	0	0	6	50	0	
220	England	171	1	92	78	12	15	2	3	3	18	23	44	57	0	0	0		14	5	0	19	24	1	1
221	London	46	0	22	24	7	33	1	4	0	1	0	1	4	0	0	0		8	7	0	15	59	0	
222	Oxfordshire	33	1	19	13	6	46	0		0	0	0	0		0	0	0		7	0	0	7	54	0	
230	Wales	13	0	8	5	0		1	20	0	2	0	2	40	0	0	0		1	1	0	2	40	0	
240	Scotland	169	28	14	127	5	6	1	1	33	6	64	103	80	0	2	1	9	7	0	16	12	0		
250	Ireland	116	0	37	79	2	2	6	8	0	2	58	60	77	0	0	0		8	2	1	11	13	0	
	British Isles	563	30	195	338	36	11	11	3	36	30	145	211	62	1	0.5	2	1	53	22	1	76	22	1	0.5
300a	Europe	27	3	2	22	10	45	1	5	0	0	0	0		0	0	0		11	0	0	11	50	0	
300b	Europe / Rhine	54	1	0	53	5	20	0		10	6	0	16	30	0	0	0		31	1	0	32	60	0	
313-320	N.W. Europe	7	0	0	7	1	14	2	28	0	0	3	3	44	0	0	0		0	1	0	1	14	0	
330	Germany	62	0	4	58	4	6	1	2	6	37	0	43	77	0	0	0		0	5	5	10	18	0	
340	France	56	9	2	45	4	8	2	5	2	2	0	4	9	0	0	0		28	0	7	35	78	0	
348	Corsica	35	11	24	0	0		0		0	0	0	0		0	0	0		0	0	0	0	0	0	
350	Mediterranean	15	0	6	9	7	78	0		0	0	0	0		0	0	0		2	0	0	2	22	0	
355-356	Iberia + Spain	65	5	41	19	10	49	0		2	5	0	7	37	0	0	0		1	1	0	2	14	0	
360	Italy	35	1	13	21	5	24	2	10	0	6	1	7	33	0	0	0		2	0	0	2	10	5	23
363	Sicily	45	0	0	45	0		0		0	5	0	5	11	0	0	0		5	2	0	7	15	33	74
370-379	Balkans + Greece	29	0	23	6	0		4	66	0	0	0	0		0	0	0		1	1	0	2	34	0	
380a	Alpine	9	0	1	8	2	25	2	25	0	0	0	0		0	0	0		4	0	0	4	50	0	
380b	Alpine Landforms	126	0	0	126	49	39	6	5	2	2	0	4	3	6	4	37	30	4	0	2	6	5	18	14
381	Switzerland	74	0	0	74	2	2	2	3	0	68	0	68	92	0	0	0		0	0	0	0	2	3	
383-390	Eastern Europe	6	0	2	4	0		1	25	0	0	0	0		0	0	0		3	0	0	3	75	0	
	All Europe	645	30	118	497	99	21	23	4	22	131	4	157	31	6	1	37	7	92	11	14	117	24	58	12
420-423	Middle East	80	1	76	3	0		0		2	0	0	2	67	0	0	0		0	0	0	0	1	33	
400	Asia : Maps	51	8	2	41	7	14	8	20	1	0	0	1	2.5	0	0	0		19	5	0	24	58	1	2.5
	Asia : views (Near East)	50	6	0	44	0		0		0	3	0	3	7	0	9	20	0	0	0	0	0	32	73	
	Asia : views (Himalayas)	128	30	0	98	12	12	0		0	2	2	4	4	0	29	30	4	18	0	0	22	23	31	31
	Asia : views (India)	88	6	0	82	22	27	0		7	6	4	17	19	0	3	4	3	2	0	0	5	7	35	43
	Asia : views (S.E. Asia)	51	0	10	41	7	10	0		0	0	0	0		3	9	24	60	6	1	0	7	21	0	0
	Asia : views (Far East)	103	0	13	90	3	3	0		0	12	0	12	13	0	62	70	11	1	0	0	12	13	1	1
	All Asia	551	51	101	399	51	12	8	2	10	23	6	39	10	3	1	127	32	43	27	0	70	18	101	26
500	Africa : Maps	37	1	0	36	10	29	5	14	0	0	0	0		1	3	0		11	9	0	20	55	0	
	Africa : views (North Africa)	48	2	7	39	1	2	0		3	2	0	5	13	2	5	28	73	3	0	0	3	7	0	
	Africa : views (East Africa)	72	1	0	71	6	8	1	1	0	16	0	16	23	0	45	64	3	0	0	0	3	4	0	
	Africa : views (West)	57	3	0	54	3	6	0		0	0	0	0		0	51	94	0	0	0	0	0	0	0	
580	Africa : South	32	0	3	29	3	10	16	54	0	1	0	1	3	0	1	3	4	4	0	0	8	30	0	
	All Africa	246	7	9	229	23	10	22	9	3	19	0	22	10	3	1	125	55	21	13	0	34	15	0	

Geography Classification	Regional	Number	Missing	Post 1945	Pre 1940	Unknown Pre 1940	%	Diagram Co.	%	Commercial Lecture	Commercial Slide	Commercial Photograph	Total Commercial	%	Outsourced (Holiday)	%	Academic (BAAS, etc)	%	Books	Articles	Maps	Total in house	%	Personal	%
600	South America	28	0	1	27	4	14	3	11	0	0	0	0		0		19	71	1	0	0	1	4	0	
700-730 + 748	North America with Canada & Alaska	23	0	6	17	2	12	3	17	0	0	0	0		1	6	6	35	5	0	0	5	30	0	
740	United States	180	15	21	144	5	3	5	2	2	1	1	4	2	10	7	12	9	33	6	2	41	30	67	47
770	Mexico	14	0	0	14	0		0		0	0	0	0		1	7	5	36	7	1	0	8	57	0	
780	Caribbean	35	0	1	34	2	5	0		0	3	0	3	9	3	9	7	21	0	0	0	0		19	56
	All Americas	280	15	29	236	13	6	11	5	2	4	1	7	2	15	7	49	21	46	7	2	55	23	86	36
820 + 880	Australia	83	0	33	50	7	14	5	10	1	0	5	6	12	1	2	11	20	19	0	0	19	40	1	2
890	New Zealand	57	0	50	7	1	13	2	30	3	0	0	3	43	1	13	0	0	0	0	0	0	0	0	
910	Pacific Islands	36	0	1	35	5	14	0		1	0	0	1	3	0		21	60	5	3	0	8	23	0	
1000	The World	36	2	3	31	5	22	3	9	0	2	0	2	9	0		0		12	8	1	21	60	0	
	Oceania + World	212	2	87	123	18	15	10	8	5	2	5	12	10	2	2	32	26	36	11	1	48	39	1	
	All Regional	2,497	135	540	1,822	240	12	85	2	78	209	161	448	26	30	1	372	21	291	91	18	400	25	247	13
			6%	21%	73%																				
	Thematic																								
B	Map projections & Cartography	44	0	0	44	0		0		0	0	0	0		29	66	0		9	6	0	15	14	0	
C	General Geography	0																							
D	Physical geography	12	0	0	12	6	55	0		0	0	0	0		0		0		5	1	0	6	45	0	
E	Geology	90	0	1	89	0		1	1	3	0	0	3	4	1	1	77 + 1	87	3	1	0	4	5	2	2
F	Hydrology	0																							
G	Oceanography	35	0	3	32	1	3	1	3	17	0	0	17	53	1	3	0		11	1	0	12	38	0	
H	Climatology & Meteorology	189	35	65	89	9	10	11	12	10	0	0	10	12	31	36	0		11	17	0	28	30	0	
I	Plant geography	165	1	0	164	4	3	0		0	2	1	3	2	0		144 + 1	88	11	1	0	12	7	0	
J	Animal geography	14	0	0	14	3	21	0		6	2	0	8	57	0		0		2	1	0	3	22	0	
L	Anthropology	0																							
M	Human geography	9	1	6	2	0		2	100	0	0	0	0		0		0		0	0	0	0		0	
N	Economic geography	31	0	25	6	2	40	0		0	0	0	0		0		0		4	0	0	4	60	0	
Q	Political geography	9	0	7	2	0		0		0	0	0	0		0		0		0	2	0	2	100	0	
R	History of Cartography	55	2	5	48	13	27	0		0	0	0	0		0		0		25	10	0	35	73	0	
S	Geographical discovery	188	0	55	133	40	30	1	1	0	0	0	0		0		0		78	14	0	92	69	0	
	All Thematic	841	39	167	635	78	12	16	2	36	4	1	41	7	62	10	223	35	159	54	0	213	33	2	1
	Total Collection	3,338	174	707	2,457	318	18	101	4	114	213	162	489	23	92	4	595	11	450	145	18	613	27	249	13
			5%	21%	74%																				

Annexe 3: Types of illustrative material in the slide teaching collection

Region / Topic	Number	Missing	Post-1945	Pre-1940	Maps, diagrams, etc	%	Photographs	%	HEIR Scanned (Total)
Regional									
Great Britain	15	0	3	12	12		0	0	0
England	171	1	92	78	35		43	55	47
London	46	0	22	24	23		1	4	0
Oxfordshire	33	1	19	13	12		1	7	0
Wales	13	0	8	5	3		2	40	2
Scotland	169	28	14	127	21		106	83	106
Ireland	116	0	37	79	18		61	78	62
British Isles	563	30	195	338	124		214	64	217
Europe	27	3	2	22	22		0		0
Europe / Rhine	54	1	0	53	5		48		48
N.W. Europe	7	0	0	7	4		3		0
Germany	62	0	4	58	9		49		44
France	56	9	2	45	35		10		10
Corsica	35	11	24	0	0		0		16
Mediterranean	15	0	6	9	9		0		0
Iberia + Spain	65	5	41	19	10		9		37
Italy	35	1	13	21	7		14		15
Sicily	45	0	0	45	3		42		40
Balkans + Greece	29	0	23	6	5		1		4
Alpine	9	0	1	8	6		2		2

Region	Number	Missing	Post-1945	Pre-1940	Maps, diagrams, etc	%	Photographs	%	HEIR Scanned (Total)
Alpine Landforms	126	0	0	126	14		112		101
Switzerland	74	0	0	74	4		70		70
Eastern Europe	6	0	2	4	4		0		0
All Europe	645	30	118	497	137		360	<i>73</i>	387
Asia: Maps	51	8	2	41	41		0		0
Asia: views (Near East)	50	6	0	44	0		44		44
Asia: views (Himalayas)	128	30	0	98	0		98		97
Asia: views (India)	88	6	0	82	3		79		79
Asia: views (S.E. Asia)	51	0	10	41	6		35		35
Asia: views (Far East)	103	0	13	90	12		78		80
All Asia	551	51	101	399	62		337	<i>86</i>	351
Africa: Maps	37	1	0	36	36		0		0
Africa: views (North Africa)	48	2	7	39	1		38		38
Africa: views (East Africa)	72	1	0	71	4		67		67
Africa: views (West)	57	3	0	54	1		53		53
Africa: South	32	0	3	29	23		6		8
All Africa	246	7	10	229	65		164	<i>72</i>	166

Region	Number	Missing	Post-1945	Pre-1940	Maps, diagrams, etc	%	Photographs	%	HEIR Scanned (Total)
South America	28	0	1	27	7		20		20
North America with Canada & Alaska	23	0	6	17	9		8		11
United States	180	15	21	144	44		100		102
Mexico	14	0	0	14	0		14		12
Caribbean	35	0	1	34	1		33		32
All Americas	280	15	29	236	61		175	<i>74</i>	177
Australia	83	0	33	50	19		31		50
New Zealand	57	0	50	7	3		4		53
Pacific Islands	36	0	1	35	3		32		31
The World	36	2	3	31	31		0		0
Oceania + World	212	2	87	123	56		67	<i>59</i>	134
All Regional	2,497	135	540	1,822	505	27	1,317	73	1,432
		<i>6%</i>	<i>21%</i>	<i>73%</i>					

Thematic	Number	Missing	Post-1945	Pre-1940	Maps, diagrams, etc	%	Photographs	%	HEIR Scanned (Total)	
Map projections & Cartography	44	0	0	44	44		0		0	
General Geography	0									
Physical geography	12	0	0	12	12		0		0	
Geology	90	0	1	89	4		85		82	
Hydrology	0									
Oceanography	35	0	3	32	18		14		0	
Climatology & Meteorology	189	35	65	89	77		12		9	
Plant geography	165	1	0	164	0		164		150	
Animal geography	14	0	0	14	3		11		9	
Anthropology	0									
Human geography	9	1	6	2	2		0		0	
Economic geography	31	0	25	6	6		0		0	
Political geography	9	0	7	2	2		0		0	
History of Cartography	55	2	5	48	48		0		0	
Geographical discovery	188	0	55	133	131		2		4	
All Thematic	841	39	167	635	347	<i>56</i>	288	<i>44</i>	254	
Total Collection	3,338	174	707	2,457	852	<i>35</i>	1,605	<i>65</i>	1,686	<i>67%</i>
		<i>5%</i>	<i>21%</i>	<i>74%</i>					<i>50%</i>	

Annexe 4: Types of illustrative material in student descriptions

Diss	Total	Maps	Diagrams	Postcard local	Postcard national	Magazine plate	Commercial photograph	Personal photograph	Sketch	Other
3	30	7	0	7	6	9	1	0	0	0
8	109	15	7	13	0	28	6	37	3	0
9	38	8	4	4	4	2	0	16	0	0
18	22	1	4	5	9	0	0	3	0	0
21	39	5	12	8	3	0	0	2	9	0
23	34	1	3	14	2	1	0	13	0	0
25	18	2	0	4	0	0	0	12	0	0
29	67	6	7	4	0	0	2	29	19	0
31	17	2	3	2	2	0	0	8	0	0
35	24	6	1	0	4	0	8	4	1	0
43	12	4	0	0	0	5	0	3	0	0
44	19	4	8	1	2	0	0	4	0	0
45	38	11	6	15	6	0	0	0	0	0
48	20	4	8	0	0	3	0	5	0	0
92	15	0	7	0	0	1	0	7	0	0
93	53	0	8	7	9	4	2	23	0	0
98	295	25	35	59	4	18	1	153	0	0
99	44	4	7	24	1	0	0	8	0	0
100	25	4	0	4	3	5	0	9	0	0
102	30	1	8	0	0	0	0	21	0	0
103	26	7	13	3	0	0	0	0	3	0
105	44	1	10	20	10	1	0	0	2	0
106	43	3	14	23	2	0	0	1	0	0
107	89	0	0	10	11	0	0	68	0	0
108	103	5	7	15	13	40	8	15	0	0
110	15	0	1	5	0	0	0	9	0	0
111	156	31	8	36	6	27	3	29	13	3

Diss	Total	Maps	Diagrams	Postcard local	Postcard national	Magazine plate	Commercial photograph	Personal photograph	Sketch	Other
112	101	0	3	61	32	5	0	0	0	0
114	97	0	8	6	0	4	0	78	1	0
116	25	0	9	2	0	0	0	13	1	0
117	6	0	0	0	0	0	0	6	0	0
118	34	1	3	13	14	0	0	3	0	0
119	49	3	5	3	4	0	0	0	34	0
120	44	2	9	10	1	5	0	17	0	0
122	63	3	9	15	2	0	4	30	0	0
123	51	1	0	13	0	2	0	35	0	0
125	18	2	4	6	0	0	0	4	2	0
126	21	3	2	15	1	0	0	0	0	0
128	18	4	0	0	2	0	0	12	0	0
129	78	3	15	14	19	12	0	14	1	0
130	47	1	0	28	9	0	0	9	0	0
131	62	3	0	28	0	27	0	4	0	0
132	118	0	0	28	10	0	0	80	0	0
135	68	0	11	27	1	0	0	29	0	0
136	36	1	8	21	0	0	0	6	0	0
137	77	0	0	17	25	13	2	20	0	0
138	48	1	4	15	1	0	0	27	0	0
140	25	2	9	0	0	0	9	3	2	0
141	52	2	6	11	7	5	0	19	2	0
142	67	0	0	25	34	7	0	0	0	1
143	43	0	6	16	12	0	0	9	0	0
144	20	0	6	8	2	4	0	0	0	0
145	68	0	4	27	17	0	0	20	0	0
146	42	3	5	29	2	0	0	0	3	0
147	103	28	12	6	6	9	0	42	0	0
148	90	0	0	28	8	8	0	46	0	0

Diss	Total	Maps	Diagrams	Postcard local	Postcard national	Magazine plate	Commercial photograph	Personal photograph	Sketch	Other
149	36	2	1	10	1	0	0	22	0	0
151	22	6	1	3	2	0	0	10	0	0
152	22	7	1	5	0	4	0	5	0	0
153	14	2	6	0	0	0	0	2	4	0
154	21	3	5	9	0	2	0	1	1	0
155	43	10	5	8	0	0	0	20	0	0
156	73	8	10	7	12	0	0	36	0	0
157	117	11	13	14	12	9	8	49	1	0
161	87	4	16	26	4	5	2	27	3	0
162	34	3	18	2	11	0	0	0	0	0
163	25	0	1	3	1	1	0	19	0	0
164	112	2	6	78	3	5	7	11	0	0
165	109	7	5	56	4	1	0	36	0	0
166	70	6	3	33	0	0	0	28	0	0
167	122	12	14	24	18	14	0	37	3	0
168	84	0	1	33	22	8	0	20	0	0
169	40	4	15	19	2	0	0	0	0	0
170	69	21	5	4	0	0	0	39	0	0
172	23	2	6	12	1	0	0	2	0	0
173	54	0	4	23	12	0	0	15	0	0
175	41	4	1	13	7	13	0	3	0	0
176	45	0	11	5	1	0	0	23	5	0
177	72	5	10	27	5	4	0	21	0	0
178	73	21	14	9	4	0	2	22	1	0
179	86	3	9	24	4	1	0	45	0	0
180	201	6	7	67	37	0	0	83	1	0
181	53	1	13	2	5	4	0	28	0	0
182	32	1	7	0	0	0	0	24	0	0
183	62	1	19	42	0	0	0	0	0	0
184	45	3	0	9	1	0	20	12	0	0

Diss	Total	Maps	Diagrams	Postcard local	Postcard national	Magazine plate	Commercial photograph	Personal photograph	Sketch	Other
185	19	0	0	0	0	0	6	8	5	0
186	45	1	1	4	9	10	0	20	0	0
187	26	1	0	2	5	3	0	15	0	0
190	44	3	20	12	9	0	0	0	0	0
191	40	9	7	1	2	0	12	5	0	4
192	30	3	11	7	0	0	0	9	0	0
193	12	1	1	0	0	0	0	10	0	0
198	143	23	20	11	13	4	0	72	0	0
199	16	0	1	0	0	5	0	10	0	0
200	29	5	10	5	1	0	0	8	0	0
201	59	8	19	15	2	0	0	15	0	0
202	58	4	9	17	1	1	0	22	1	3
203	121	1	5	30	18	1	0	66	0	0
205	92	19	8	23	1	2	0	39	0	0
207	163	41	31	0	0	5	0	86	0	0
209	10	1	4	0	0	0	0	0	5	0
210	38	2	6	6	0	0	0	24	0	0
211	122	2	17	39	3	2	1	58	0	0
212	80	5	12	31	14	1	0	17	0	0
213	57	7	6	22	8	10	1	2	1	0
214	118	4	16	47	23	5	0	23	0	0
215	41	2	7	3	0	0	0	29	0	0
216	61	14	18	14	1	0	0	8	0	6
217	54	4	7	10	0	3	0	27	3	0
218	29	4	7	9	1	0	0	8	0	0
222	104	0	7	10	23	0	0	63	1	0
224	25	0	5	6	2	0	8	4	0	0
226	16	0	1	0	0	10	0	5	0	0
227	7	0	0	7	0	0	0	0	0	0
228	37	0	13	22	1	0	0	1	0	0

Diss	Total	Maps	Diagrams	Postcard local	Postcard national	Magazine plate	Commercial photograph	Personal photograph	Sketch	Other
229	75	2	4	0	0	0	0	69	0	0
230	88	3	33	28	7	9	0	8	0	0
231	80	3	25	17	4	26	0	4	1	0
232	89	2	21	2	8	1	5	50	0	0
233	42	7	15	3	0	2	0	15	0	0
234	98	1	38	8	7	0	0	40	3	1
235	102	18	36	2	6	3	0	37	0	0
236	36	6	7	11	2	0	1	9	0	0
237	50	1	22	0	0	0	0	0	26	1
238	47	5	0	14	9	7	0	12	0	0
241	56	4	3	32	2	9	0	6	0	0
242	85	15	15	0	0	23	0	32	0	0
243	10	0	0	0	0	0	0	10	0	0
244	75	18	7	4	1	1	0	44	0	0
245	99	4	11	42	27	1	0	13	1	0
247	70	14	4	0	0	14	0	38	0	0
248	72	1	5	26	4	0	0	36	0	0
249	99	23	24	0	0	0	0	50	2	0
250	205	12	36	0	0	2	0	155	0	0
251	34	2	0	0	0	6	0	26	0	0
252	79	7	3	38	14	7	0	10	0	0
254	184	4	31	56	19	24	0	44	1	5
255	54	10	18	1	1	1	0	23	0	0
256	83	15	8	9	3	0	0	48	0	0
257	10	0	0	2	3	0	0	5	0	0
259	53	8	4	28	0	0	0	13	0	0
260	98	14	20	2	9	0	0	50	3	0
262	24	5	4	2	4	8	0	0	1	0
263	192	20	2	99	21	0	0	50	0	0
265	69	6	13	0	0	2	2	46	0	0

Diss	Total	Maps	Diagrams	Postcard local	Postcard national	Magazine plate	Commercial photograph	Personal photograph	Sketch	Other
266	36	1	10	8	7	0	0	10	0	0
267	33	13	2	0	0	0	0	18	0	0
268	101	19	20	7	4	10	0	41	0	0
269	60	4	8	31	2	8	0	7	0	0
270	18	2	5	0	0	0	0	11	0	0
271	76	4	12	34	3	12	0	11	0	0
272	38	0	0	4	9	0	0	23	2	0
273	116	36	14	29	5	7	0	25	0	0
275	31	0	0	0	0	2	0	29	0	0
276	114	1	20	16	7	20	0	49	1	0
277	16	2	5	2	0	0	0	6	1	0
279	31	3	4	10	0	12	0	0	2	0
280	43	3	6	14	0	1	0	18	1	0
281	95	0	16	6	10	4	0	59	0	0
282	120	1	17	5	3	0	0	91	3	0
283	72	16	7	9	0	5	0	33	2	0
284	39	2	8	2	6	2	0	19	0	0
285	85	20	25	0	0	3	32	5	0	0
287	94	5	21	12	1	2	0	53	0	0
288	25	1	5	0	5	0	0	14	0	0
289	52	7	13	5	0	3	2	22	0	0
292	64	1	5	9	1	3	0	45	0	0
293	60	1	5	3	1	0	7	43	0	0
294	70	0	1	5	3	0	0	61	0	0
297	52	1	5	0	0	0	0	46	0	0
298	130	7	45	6	5	1	0	58	8	0
299	41	0	1	9	0	0	6	25	0	0
300	100	0	5	5	3	10	0	77	0	0
303	59	13	19	0	0	0	0	27	0	0
304	72	6	12	4	0	0	19	31	0	0

Diss	Total	Maps	Diagrams	Postcard local	Postcard national	Magazine plate	Commercial photograph	Personal photograph	Sketch	Other
305	33	2	2	3	9	0	0	17	0	0
307	10	1	7	1	0	1	0	0	0	0
308	35	0	0	1	2	2	0	30	0	0
817	77	13	12	19	0	7	5	21	0	0
	11035	954	1561	2360	849	639	192	4267	189	24
%		8.6	14	21.3	7.7	5.8	1.7	39	1.7	0.2
			23	29						

Last row: 23 = % of maps and diagrams combined ; 29 = % of postcards combined (local and national)