Between the local and the universal: academic worlds and the long history of the university

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Since the 1990s, the scale of transnational academic mobility has measurably increased. Between 2000 and 2012 the global number of enrolled foreign tertiary students more than doubled (OECD 2014a, p. 343; OECD 2014b, p. 344). Academics are more difficult to track, but between 1994 and 2005, the number of international academics moving into the US increased by 49 per cent (Vincent-Lancrin 2006, p. 186). In 2010 more than 56 per cent of academic staff in Europe were classed as internationally mobile (IDEA Consult 2010, p. 8). Yet academic mobility is a phenomenon that is far from even. In 2014 Australia, Canada, France, Germany, the United Kingdom and the United States together received more than half of all foreign students globally (Organisation for Economic Co-operation and Development [OECD] 2014a, p. 343; OECD 2014b, p. 344). And many countries continue to experience marked outflows of academics from their universities to the US and Europe (United Nations Organization for Education, Science and Culture [2009], p. 15). In the realm of science, virtually no foreign researchers were to be found in India in 2012 (Franzoni et al. 2012, p. 5). As students and academics move along the international routes of scholarship, they do so under particular political conditions, travelling identifiable routes, to select institutions and for specific purposes. Despite rhetoric about global mobility, it is clear that the routes of scholarly travel at the start of the twenty-first century trace particular paths and are shaped by a variety of forces and actors creating geographies of connection that may be transnational, but are far from global. It is perhaps more useful to think of these geographies as academic "worlds": limited transnational communities that are mapped by practices and engagements that, though expansive, are none-the-less bounded.

Universities and the individuals who work in them are both local and global actors. They are rooted in specific social, political and economic communities, yet their authority comes from their claim to be representatives of a culture and learning that is apparently "universal" in that it is recognisable and even tradable beyond the boundaries of particular localities. To maintain their status and power, universities need to maintain their relevance on both fronts: they need to meet the political and social needs of particular regional and national contexts, and they need to sustain their connection to changing culture and knowledge. Clark Kerr, the reforming President of the University of California from 1958 until 1967 put it another way:

> Universities are, by nature of their commitment to advancing universal knowledge, essentially international institutions, but they have been living in a world of nation states that have designs upon them. My basic question is: where does this dual identification position these institutions between a mythical academic Heaven and a sometimes actual earthly hell, and in what ways does it affect how they may act? …

> Which to serve: the universal truth or the particularised power? (Kerr 1990, pp. 1 & 5-6)

This 'dual identification' has meant many different things in different contexts, not least because what counts as 'universal truth' has a history, and its relationship to 'particularised power' has not always been as separate as Kerr made out.

Academic travel sits at the heart of this tension between the local and the "universal": students and scholars move between various centres, seeking the particular status and expertise of institutions and individuals renowned for their development of knowledge. But they do so constrained by history, conditioned by capacity, shaped by regulation, lured by money, and compelled by circumstances beyond their control. Understanding the respects in which scholarship has been territorialised or deterritorialised – by states, universities, and international relations among other forces – is a way of tracing the long history of the transnational politics of higher education (Swyngedouw 2010). This chapter argues that, if we are to understand the geographies of higher education today, it is necessary to look to the past and its legacies. It traces the long history of the university, from its European origins in the Middle Ages through to the present, in order to show how its adaptation (or failure to adapt) to the changing politics of the local and the "universal" has created various transnational geographies of connection that continue to shape the international "worlds" of higher education in the 21st century.

Origins: from medieval Europe to the Enlightenment

While there were flourishing centres of higher learning in the Arab and Confucian medieval worlds, the "university" as we know it today is largely an outgrowth of the European institutions of the Middle Ages. The movement of scholars was key to the idea of the university as it emerged in the decentralised politics of Europe in the 11th century. In this period, ambitious students flocked to learn from eminent teachers at the cathedral and urban schools, forming communities that rapidly developed into corporate bodies of independent legal status. Despite the clerical status of their teachers and students, these "universities" were 'primarily vocational schools for the professions', that trained not just the clergy, but also lawyers, clerical and lay administrators, and sometimes medics (Cobban 1975, pp. 218-229 & 8-9; Perkin 1984, pp. 21-23). They proved extremely successful and their number grew rapidly so that by 1500 there were twenty-eight universities across Europe, Scandinavia and the British Isles. They shared a common curriculum and a common language: all teaching in Latin, and offering the seven liberal arts (grammar, logic and rhetoric, arithmetic, geometry, astronomy, and music) and the three postgraduate disciplines (theology, law and medicine). Three additional privileges undergirded the essentially cosmopolitan nature of these institutions. The papal grant of a *studium generale* gave the university international status and recognition, the *ius ubique docendi* gave scholars the right to teach everywhere, and, should they come into conflict with their civic hosts, universities as well as students maintained the right to relocate and to take their prestige as well as their business with them (Perkin 1984, p. 24). Financial incentives fostered movement too: religious orders such as the Dominicans encouraged their members to travel, and cities offered inducements for them to stay (Perraton 2014, p. 201). Supported in different ways by the Church, the Holy Roman Empire and civic municipalities, universities in this period emerged as 'supranational centres propagating an international culture' (Nardi 1992, p. 102).

But paradoxically, as the number of universities grew competition increased between them, and the cities in which they made their homes. This led universities to turn to their regions and by the 15th century, three-quarters of all students went to a local university (de Ridder-Symoens 1992, pp. 286-287). Neither should the difficulty of travel in the Middle Ages be underestimated: moving long distances took time and money, and political conflict and war made it dangerous. Mobility among teaching staff tended to be at the junior levels. As Peter Vandermeersch shows, until the end of the 16th century, once university professors gained a chair, they usually remained in it for the rest of their careers (Vandermeersch 1992, p. 241). The learning taught in these medieval universities succeeded in presenting a unified medieval world-view that reconciled Greek and biblical thought. It made universities incredibly powerful independent institutions which taught arguments and skills of reasoning that were seen as valuable both by empire and papacy. Yet according to Harold Perkin, it was this humanist learning fostered by the universities that incubated the ideas of the Reformation and set in train a process that would in turn pose 'a more serious threat to the independence of the university than ever the medieval Church had been' (Perkin 1984, pp. 26-27).

The cataclysmic events of the 16th century Reformation and Wars of Religion entailed a redefinition of "universal" knowledge that had huge consequences for the universities. Universities were at the heart of bitter battles over doctrine that tore apart Europe in this period. Which knowledge they should teach became closely linked to questions of the political and military support of ruler and prince. Some institutions whose fortunes had previously been high got caught in the crossfire of the Reformation while others enjoyed a golden age. The University of Heidelberg, for example, boomed in the early 16th century, hosting Martin Luther in 1518 and attracting exiled professors from across Protestant Europe (Jöns 2015, p. 6). Universities were forced to change their character in order to survive. In England, Oxford and Cambridge survived the effects of Thomas Cromwell's ban in 1535 of the lucrative faculty of canon law, only by ending their role as educational establishments of the church, and taking upon themselves the role of providing the moral education of the lay ruling class (Perkin 1984, p. 28).

This division in European Christendom created new geographies of academic mobility. As conflict abated towards the end of the 16th century, and religious learning and law became central to the emerging political consensus, the number of travelling students increased. 'We can truly say', writes Hilde de Ridder-Symoens, 'that the first decades of the sixteenth century were the golden age of the wandering scholars' (de Ridder-Symoens 1996, p. 418). Yet the direction of this movement was highly conditional. In 1559 Philip II of Spain forbade his subjects from studying anywhere except the Spanish *studia*, and in Coimbra, Rome, Naples or Bologna. Other Catholic Habsburgs followed him, so that by the latter part of the 16th century students from the Northern Netherlands travelled across Europe, while those from the South went to the Louvain, Douai, Dole and Rome. The most popular universities for Protestants included the Universities of Jena, Rostock, and Griefwald, (de Ridder-Symoens 1996, pp. 420 & 422). The wars of religion created Catholic and Protestant academic worlds and students tended to follow itineraries within but not across their borders.

Travel once again became more restricted in the 17th century, when universities and the knowledge they produced again became targets of the Thirty Years' war (1618-48) and the English Civil war (1642-1651), resulting in falling numbers and new state-mandated restrictions on foreign study (Perraton 2014, p. 203; Ridder-Symoens 1996). This was the period in which what counted as "universal" knowledge was once again being refashioned. The proponents of the 'Scientific Revolution' sought to fundamentally transform existing

views of society and nature, pursuing developments in mathematics, physics, astronomy, biology and chemistry that emphasized systematic experiment and observable evidence. Historians have traditionally seen scholastic universities as hostile to this new learning, which instead developed in ad hoc Academies and scientific societies and was taught in new institutions of technical instruction (Porter in de Ridder-Symoens 1996, pp. 531-533; Perkin 1984, p. 19). However, not only is the 'scientific revolution' of the 17th century increasingly being understood as a much longer process that began in the Renaissance (Shapin 1996), it is also now seen as a more complicated process of university conflict, contestation and reform. While some universities actively excluded progressive science, other older institutions provided homes to new institutes like anatomy theatres and botanical gardens. At the same time newer universities were founded that championed the new learning as a point of distinction, becoming major centers of innovation (Burke 2000, p. 41; Porter in de Ridder-Symoens 1996, pp. 545-546).

These initiatives were taken further in the 18th century as the Academies (most notably in Berlin, St Petersburg and Stockholm) fostered the possibility of semi-professional scientific careers in which research played a major role (Burke 2000, p. 47). It was in them, and in the informal societies and salons that the ideas of the Enlightenment, with its emphasis upon systematic reason, were mostly developed. Although some universities such as Gottingen and Leiden thrived, the 18th century was a time of stagnation and crisis for many others that had previously been prominent. Failing to engage with the new learning, Oxford, for example, was 'dead for want of students' as many of the gentry instead made the Grand Tour of continental Europe (Kearney 1970, p. 33). While they continued to teach students, many institutions 'maintain[ed] their corporate traditions at the price of isolation from new trends' and the university consequently lost the virtual monopoly of higher education it had previously commanded (Burke, 2000, pp. 45-48).

The increasingly global networks of empire and trade were a crucial part of this revolution in European scholarly knowledge. Exploration and the growth of trading empires from the 17th to the 20th century brought travelling Europeans into contact with new natural, social and intellectual systems and this encounter stimulated the growth of all the sciences (Shils & Roberts 2004; Livingstone & Withers 2011; Sivasundram et al. 2010; Schaffer et al. 2009; Gevers & Vos 2004). Knowledge became part of the forms of rule exercised by imperial and settler societies in this period, and the first universities in the Americas were founded in the 16th century in order to meet the demand for religious and secular colonial administration (Roberts, Cruz & Herbst 1996). Controlled by the Spanish government in close association with the Catholic Church and modelled on the University of Salamanca, they drew on a different tradition than those established in the British colonies of North America a century later. Beginning with the foundation of Harvard in 1636, these Anglo institutions provided a general as well as religious education and exhibited an independence and tolerance that reflected their local histories and contexts. The foundation of all these universities in the Americas contributed to the emergence of a new kind of long-distance scholarly mobility, as teachers and students moved across the Atlantic to study and teach along routes laid down by religion, trade and empire (Schwartzman, et al. 2008, p. 143; Kim 2009, p. 389).

From the 15th century on, scholars in universities across Europe and the Americas, but also those working outside them, regularly corresponded with each other, creating an epistolary community known as the "Republic of Letters" that transcended national boundaries and stretched across linguistic and cultural divides (de Ridder-Symoens 1996; Goodman 1994; Grafton 2009). Travel and communication among a network of institutions that reached from

Rome to Edinburgh was key to the operation of this transnational community. Yet membership was always highly selective, both socially and geographically, and from the 18th century on, regional and language-based networks became increasingly important. Paris, Berlin-Gottingen, London-Leiden-Edinburgh and some of the northern cities in Italy began to form hubs of distinct academic worlds that signaled the shift away from Latin as the international language of scholarship, and towards national languages of instruction; a shift that foreshadowed the emergence of a new politics of the local and the "universal" that would have big implications for universities in the nineteenth century (Taylor, Hoyler & Evans 2008).

The modern university: the age of nation and empire

Definitions of the modern university are notoriously slippery, but we can identify four processes that characterized the emergence of a distinctly new kind of institution in the long nineteenth century. First, universities moved from the humanist tradition to a scientific one; second, they secularized; third they embraced research; and fourth they professionalized and developed a close relationship with a new patron: the nation-state. Although often associated with the emergence of the research university in Germany, these shifts were the product of a much broader set of political, economic and social changes that refashioned universities in the period up until the Second World War. In making them, universities were adapting to a new politics of the local and the "universal": one shaped by the emergence of the nation-state, revolutions in transport and communications, the flowering of new scientific and technical learning, and the growth of mass-democratic societies that made new demands on the institutions of knowledge.

The origins of the research university are often traced to Wilhelm von Humboldt who, working at the newly established University in Berlin, articulated the notion of *Wissenschaft* as its ideal. This was an approach to learning that took pure knowledge as its aim, and placed freedom of teaching and research as central to its endeavor. This pure learning was not just confined to scientific research but it did initially place practical and applied knowledge such as engineering outside the university and it was taught instead in specialized technical colleges (*Technische Hochschule)* that developed close relationships to industry. According to historian Sylvia Paletschek, the Humboldtian origins of the research university are a myth that originated at the end of the 19th century in order to construct a genealogy that put the roots of the then world-leading German universities in Prussia (Josephson et. al. 2014). The emergence of the idea of research was in fact part of much wider process of reform in German universities that drew especially on ideas and practices articulated in the 18th century Universities of Göttingen and Halle.

At the end of the 18th century German universities were still structured around the original four faculties of theology, philosophy, law and medicine. Autonomous professors (*Ordinarien*) were supported in their research and teaching by postdoctoral researchers (*Privatdozenten*) and research students (Reugg 2004, p. 17). But with promotion based on advancing knowledge through research, the number of disciplines (and associated chairs) proliferated, as universities adapted and absorbed the new knowledge rapidly developing about the natural and human world. Their growth was supported by the state. It funded them as both prestige projects and engines of science and it paid professors, making research a professional and bureaucratically regulated activity. The state also employed most of the graduates who went into the expanding bureaucracies, the church and the professions and later, as access was widened, into school teaching and business. And it was the state too that

guaranteed academic freedom and autonomy (valued because they were seen as key to enabling the pursuit of pure knowledge): in the process ensuring the loyalty of the students and staff alike (Perkin 1984, pp. 35-38).

The accommodation of the university to a form of learning that included what we now call science was one that began in the early modern period, but it came to a head in the 19th century and was carried to fruition in the 20th. Although connected to the emergence of the research university, these changes to the curriculum were separate to it and they took a variety of forms, as institutions in various contexts responded to local pressures in different ways. Until the middle decades of the nineteenth century, universities were generally places that taught a relatively standardized and static curriculum focused on classics, the liberal arts, and often but not always religious instruction. Directed at a narrow male elite, this humanist education was seen to impart spiritual, moral and cognitive instruction to those who would lead society. Although some universities – most notably those in Scotland as well as the German institutions mentioned above – had embraced new scientific disciplines in the 18th century, many (such as Oxford, Cambridge, as well as Harvard and other American institutions) were slower to respond (Reuben 1996, p. 3; Anderson 1983).

Yet knowledge was very much on the move in the nineteenth century and the unresponsiveness of the older universities led to a flowering of new institutions that gathered pace in the second part of the century, as the industrial revolution, the growth of urban society and the rise of the middle-classes led to a hunger for higher education that was relevant and useful as well as cultured (Perkin 1984, p. 32). The foundation of the new US land grant colleges and the civic universities in Britain in this period points to the local desire for higher education as a vehicle both to economic and social advancement and to prestige and status, that through their very diversity helped create national systems that in turn reshaped the older institutions. As well as traditional subjects, these universities and colleges (many of those in Britain and its empire were initially sheltered by the University of London) also taught pure and applied science, modern languages, history, English and made pacts with professions such as medicine, law and later engineering, dentistry, agriculture, and architecture (Pietsch 2013). Although the knowledge it taught was newly specialised, the basis of the modern university's authority lay in its claim to be the credentialiser of abstract, verifiable, "universal" knowledge; the guardian of a truth that was dependent on the free inquiry of independent scholars.

Religion became less central to the university's function. Although religious reform movements were key in spreading humanist and scientific ideas in the early modern period and scientific theories were not held to be incompatible with religious doctrine until the start of the twentieth century, during the nineteenth century the clergy came to play an increasingly less significant role as producers and disseminators of knowledge (Reuben 1996, p. 3). Oxford abolished allegiance to the 39 Articles of the Church of England as a condition of fellowship in 1870 but the foundation of the University of London in 1836 as a non-confessional university established the direction of travel. The number of students studying theology declined as well: in Germany it fell from 30% of all students in 1830 to 8% in 1908 (Burke 2012, p. 251). Although new institutions continued to be established by religious patrons – including Duke University by Methodists and Quakers (1838), the Free University of Amsterdam by Calvinists (1880) and Chicago University by the Baptist John Rockefeller (1890) – many that had previously been religious foundations loosened their restrictions or were secularized, often by nation-states who had begun to take a much greater interest in them (Burke 2012, p. 252; Pietsch 2013, pp.17-24).

The German model of the research university proved very attractive to states in the dawning era of national industrial, military and economic competition, although as Perkin points out, reformers 'borrowed very selectively [from it], without always understanding what they were taking' (Perkin 1984, p. 36). In England it was mostly used in the 1850s at Oxford and Cambridge to boost the power of the professors, as against the well-established colleges and to advocate for change after the First World War. At the end of the nineteenth century reformers in the United States sought to emulate the German example of professionalized 'scientific' research and graduate schools seeing these as necessary for national prestige and development, while staying well clear of the state-controlled and financed aspects of its system. By contrast these were exactly what the Japanese admired when, seeking to 'modernise' the country after 1868, the Meiji Restoration looked for a higher education system adapted to the production of experts for state-led political, military and economic development (Perkin 1984, p. 39). In new institutions such as the Imperial University of Tokyo (est. 1868) they established the hierarchical professorial system with faculties of law, medicine, science and philosophy: 'The only way to maintain the nation's strength and to guarantee the welfare of our people in perpetuity is through the results of science', was how Prime Minister Ito Hirobumi put it in 1886 (Bartholemew 1987, p. 254). But again there were significant differences: in Japan the focus was on applied rather than pure science, the university was highly centralized, teaching closely controlled, and mobility between universities limited. Although less explicitly modeled on German institutions, Egypt too established a national secular university in Cairo in 1908 seeing it, in the face of British objections and financial difficulty, as a means of fostering local capacity in the practical sciences as well as the professions.

At the same time older ideas of the universities continued to serve a purpose. Key aspects of Cardinal Newman's 1853 articulation of the university as 'a collegium of pupils and scholars dedicated to preserving and transmitting universal truths in a context of residential proximity' continued to be recognizable features of British universities well into the 20th century (Webster 2013, p. 97). The embodied and residential aspect of this vision of higher education, its insistence on universal truths and moral sensibility, and its inevitable restriction to a small band of students aptly describe the liberal arts colleges of the United States as well. Teaching continued to be the primary function of most universities in Britain and in places like Australia, and although individual scholars pursued research from the end of the 19th century on, it did not become a systematic feature of the higher education system in these countries until the second part of the 20th century.

Amidst all this variation, a new relationship between universities and the nation-state developed, as scholars and the institutions of knowledge were recruited to the national cause. Indeed, whole disciplines, not least history itself, were born in this moment. National languages (such as Italian) were championed and consolidated, and disciplines such as geography, philology and literature turned to national ends. Infrastructural projects such as national libraries and archives, galleries, museums, dictionaries and professional societies drew boundaries around cultural achievements, and geological surveys and natural history expeditions were funded not just as exercises in prestige, but also as demonstrations of state capacity to know and rule (Burke 2012, pp. 191-197).

This was not just a matter of rivalry across national borders, but also a remaking of relations within them, as intellectual as well as economic and political centralization consolidated diverse communities and their local knowledges. This reconfiguration of the university

curriculum gave it a new legitimacy, and consonant with this was an expansion of the educational franchise that resulted in a dramatic increase in student numbers across the world at the end of the century (Perraton 2014, p. 54). The first doctorate was granted to a woman at Halle, in medicine, in 1754, and many colleges for the higher education of women began to be established in the United States, Europe and the UK in the mid nineteenth century, but the admission of women to universities gathered pace only at the end of the nineteenth century, reaching meaningful numbers at the time of the First World War (Burke 2012, p. 237). The development of state-supported secondary education widened universities' class base, and at the same time created a demand for university-educated teachers. Higher education came increasingly into the reach and aspiration of students from the middle classes as new universities were founded and the entrance criteria of old ones reformed.

Travel was just as key to the idea of the university in the nineteenth century as it was in the seventeenth and eighteenth. As Peter Burke points out, nationalization co-existed with internationalization (Burke 2012, p. 250). Demonstrating contact with the international centers of scholarship was as crucial as research was in maintaining the university's claim to represent "universal" culture and learning in this period. In 1911 there were 7000 foreign students in Germany, representing 11% of the total student population; in 1916 France had 1,945 (15.4%) and in 1910 foreign students represented approximately 10% of the total in Britain. Particular routes are discernable. In the first part of the century it was French institutions, stimulated by Napoleonic re-organization that drew scholars and French learned societies that were copied abroad. From the 1830s until 1914 global academic leadership was ceded to German institutions and scholarly mobility to and from Germany became key to the reformation of European, American and Japanese universities, as graduate students brought back ideas, and German scholars were recruited to work in new universities. Across the 19th century 10,000 students from the US went to German institutions. Switzerland, meanwhile, became a magnet for students from Russia, particularly Jews and women – both of whom were excluded from the Russian system. By 1906 over 90% of the women in Swiss universities were from abroad (Perraton, 2014, p. 203). And by the end of the century, a good number of the overseas students in Britain came from the various regions of the British Empire (Perraton 2014, pp. 55 & 203).

If the nineteenth century was the era of the rise of the nation-state, it was also the age of empires, and universities were part of the institutional and cultural weaponry of imperial rule. This was particularly true in the British Empire where universities took two distinct forms. In the colonies of settlement (Canada, Australia, New Zealand and South Africa) they were established as autonomous institutions by settlers who saw them as both signs and disseminators of civilization in the colonies. Although they were initially elite institutions, from the end of the nineteenth century these universities diversified to embrace science and research in order to meet the needs of their growing local communities and they took on much of the character of their provincial cousins in Britain. While universities in the United States were heavily influenced by German models, those in the British settler colonies continued to maintain close connections to British academia well into the twentieth century (Pietsch 2013). Universities were also founded in the dependent colonies of India in the mid-nineteenth century, in South East Asia in the twentieth century and Africa after the Second World War. Intended to produce an elite class of indigenous students, they were largely established by British officials and were more explicitly associated with the imposition of foreign rule and the institution of English language and culture (although there were also local moves to secure participation or control over institutions, such as that in Ceylon where several local leaders dominated the University College Council.) In the French empire too,

universities grew out of the educational institutions of colonial rule in Algiers, Senegal and Quebec. Universities were similarly a means for expanding American cultural power in the early twentieth century, established in Istanbul (1863), Beirut (1866), Cairo (1919), and Lebanon (1924) by protestant missionary groups who saw education as part of a package of western learning, global trade, and Christian belief. The educational institutions established in the colonies and territories of imperial influence variously drew on the models of the university as both cultural institution and training school. They simultaneously served to extend western forms of culture and expertise and provide higher education to a very limited number of colonial subjects. With few opportunities at home, those who could afford it, travelled to the imperial metropoles where their experiences of racism and exclusion frequently fostered outcomes that led them into nationalist and anti-imperial activism (Mukherjee 2009).

The structures of empire shaped academic mobility in this period, creating routes that pulled scholars in particular directions. Over half of all overseas students in Britain in 1921 were from the British Empire (Perraton 2014, p. 56). For students from India and Africa, where scholarships and universities alike were limited, this journey was often made at considerable expense and significant personal cost. Those from the British settler universities had a different experience. For them, travelling scholarships such as those established by Cecil Rhodes, early forms of sabbatical leave, and academic appointments were among the structures that fostered a 'British academic world' that linked Britain to the settler colonies up until the Second World War (Pietsch 2013). Empire reshaped the routes of academic travel. As Hilary Perraton writes, '[b]y 1900 the children of empire and of the world's affluent middle class, the intending professionals and the rapidly growing number of Indians' were drawing a map of student mobility that 'was less a matter of exchanges between European universities on the basis of equality, and more one of attracting students' (Perraton 2014, p. 52). This was true of the French Empire as well, with students travelling to France in large numbers from the French-speaking former colonies throughout the twentieth century (Perraton 2014, p. 209). Personal connection, reputation, professional advancement, access and exclusion and funding were all influenced by imperial and cultural infrastructures that pulled students from the periphery to the metropolitan centres of Europe, while sending European trained scholars to work in colonial and regional settings. In these ways, it was European empires as much as the rise of the nation-state, that shaped nineteenth century academic mobility, conditioning the directions in which peopled travelled and shaping their opportunities.

Together, these shifts represented a new politics of the "universal" and the local in the 19th century. Until this time, the authority of the university had rested upon its role as the local agent of a "universal" culture and learning that emphasized religion and liberal culture and was tailored to the social elite who would lead church and state. But when the content and social function of this "universal" culture changed to encompass the rapidly developing fields of science and technology, universities were forced to reassess the way they performed their at once local and global role (Pietsch 2013, p. 32). Embracing science and the professions, re-orienting towards research, expanding the educational franchise and fostering international connections, was a way of maintaining contact with the dynamic frontiers of knowledge, while also meeting the needs of cities, states and later of philanthropists who had, by the 20th century, displaced the old connection with the church as chief university patrons. In doing so universities largely succeeded in effectively establishing a monopoly on the credentialisation of knowledge that undergirded the power of the modern university throughout most of the 20th century.

Universities became indispensible to states in the context of the 20th century's wars, which demonstrated the importance of scientific research and stimulated new government investment. Seeing universities as powerful institutions for the formation of national identity and the projection of power, after 1945 states supported their further expansion, increased funding to them, sponsoring research, enlarging student numbers, and providing state bursaries or free tuition, seeing in them the best ways to locate and develop the nation's professional and creative talent.

Across the century students and scholars continued to travel, but they did so less as international scholars, and more as representatives of national citizens and political agents. Decolonization in the 1950-70s both raised local student numbers in former African and Asian colonies, but also increased the numbers who travelled abroad, contributing to debates about development and the 'brain drain' – both of which were framed in nationalist terms (Nyberg-Sørensen et al. 2002). At the same time, the new global politics of the Cold War (which was a hot war in much of the world) created two distinct worlds of student mobility that were characterized by mutual suspicion and concealed geo-political struggle. As Hilary Perraton puts it, 'East and West locked themselves into a competition for students and influence as a response to the new demand for higher education in the south, and to the new conviction that satisfying the demand was a necessary condition for development' (Perraton 2014, p. 217). Both the Soviet Union and the United States established a variety of scholarship and support programmes to attract students. Fighting capitalism or communism respectively, was an expressly stated aim of many of these and by 1990 it is estimated that there were as many as 407,529 foreign students in the United States and 126,500 in the USSR with a further 180,000 in party, *komosol*, and trade union schools (Perraton 2014, pp. 206 & 219). This made the Soviet Union the third most popular destination after the United States and France for foreign students.

The end of the modern university?

The fourth quarter of the twentieth century would again witness dramatic political, social and economic changes that disrupted the foundations of modern knowledge and its institutions, including universities. Three factors underpinned this shift. First, the intellectual and social changes associated with postmodernism disrupted the unity of knowledge that sat at the heart of the legitimacy of the modern university. An objective and discoverable notion of truth underpinned the university's claim to authority but, as Hannah Forsyth shows, once the university's knowledge was exposed as contingent, plural and ideological its special status disappeared, and so did its claims to independence and autonomy (Forsyth 2014). Second, new technologies have altered the sites and nature of intellectual endeavor. The rise and spread of the internet has made knowledge much more accessible. It has reshaped the old hierarchies that regulated its credentialisation by universities, and created new sites for its production and certification. Software developers, internet companies, manufacturing firms, and communications companies are now among the industries that are knowledge or at least data-rich and there is no reason that they, along with the professions, should not take on the task of credentialisation themselves. While managers of business are taking a greater interest in knowledge and information, universities are taking a greater interest in management as 'they struggle to maintain their position in an increasingly competitive [knowledge] world' (Burke 2012, p. 271).

Third, the economic and political changes associated with globalization and the associated retreat of the state have introduced into higher education marketised mechanisms that force competition between and within institutions. University rankings are part of this trend, but so is competitive external and internal funding allocation, and the un-capping of student numbers and the raising of tuition fees. The development of mass higher education and the expansion of the international student market are both expressions of this shift. The state-led merger and consolidation of technical colleges and the expansion of the number of universities in places like the UK and Australia in the late 1980s and 1990s introduced new mechanisms of competition to university governance, while at the same time dramatically expanded student numbers which in turn forced new funding arrangements upon institutions. Every university system in the world grew rapidly in this period. Tuition fees for domestic students, albeit supported by state-supported loans, were accompanied by the recruitment of much higher fee-paying international students who were now seen as a valuable and potentially lucrative industry.

The university is once again in an extended moment when it needs to adapt to a new alignment of the local and the universal. Universities are still tied to their geographical regions: they still provide the professional and vocational education that prepares students for local workplaces, and attract competitive research funding from nation-states that see them as stimulants for the knowledge industries. But changes to higher education governance at all political levels, reduction in direct state support, the liberalization of trade policies, the rise of English as a global language of business and scholarship, and the growth of global measures for academic esteem have contributed to a de-territorialisation of the university that are reflected in the increased rates of transnational academic mobility. At the same time and driven by new technologies, the nature and content of "universal" knowledge is again changing, and universities are struggling to maintain their monopoly over its production and credentialisation. So while they look internationally as well as to their localities for students and researchers, making cases to national governments about their role as knowledge generators, the rapidly shifting world of knowledge is not necessarily looking to them.

Academic worlds in the 21st century

Uneven transnational geographies continue to shape the global higher education market of the 21st century. The wars of religion divided Europe into a Catholic and a Protestant zone around which students moved. This division was gradually (although never entirely) followed by an age of empires, in which colonial and foreign students were drawn variously to Britain, France and Spain. Then, during the Cold War 'two circles of European student mobility came into existence', with Africa and Asia emerging as the site of battle between them (Perraton 2014, p. 217). An ideological divide of east and west echoed the earlier religious one that divided Europe into Protestant north and Catholic south. Now we have the market, where the notion of universities as generators of national economic growth through research and innovation seems sometimes to sit awkwardly with the imperative placed upon them to look for revenue in the global competition for international students. It should not be surprising that, despite being couched in the language of consumer choice, scholarly mobility in our own era is also characterized by distinct geographies. The contours of these geographies are shaped by the contemporary politics of the local and the "universal" and to understand these we need to look to many of the same forces that have long determined the routes of academic scholarship.

In fact the long history of the transnational politics of higher education has itself created deep structures that continue to shape the movement of students. European empires sit at the heart of these temporal legacies. As several chapters in this volume show, they created infrastructures and cultures of higher education that continue to determine routes of travel and shape the global landscapes of knowledge and expertise. This is clearly evident in the linguistic "worlds" that continue to shape global mobility. Universities in France attract French-speaking students from the countries of its former empire, with large numbers traveling from Morocco, Nigeria, Algeria and Cameroon. Indeed 43% of all foreign students studying in France in 2011-12 came from the Maghreb and French-speaking sub-Saharan countries (Campus France 2013). Similarly, the Spanish-speaking countries of Latin America dominate the countries of origin of foreign students in Spain (OECD 2012). And while not featuring highly in any of the global rankings (see Erkillä this volume), the major universities in Egypt are academic centers for the Arabic-speaking world.

However most international students undertake study in English and it is the dominant language of scientific scholarly publication. Although there are many reasons for the rise of English as the global medium of scholarship and business, its dominance is at least in part to do with the expansion of universities as part of British imperial rule (Crystal 1997). Led also by the Empire and the United States, the victory of the Allied forces in the First and Second World Wars established English as the international language of scholarship, displacing French and German, which had previously been dominant. Britain's 19th century empire therefore worked to create a developed modern university sector in the United States, Canada and Australia, and it helped establish English as the language of instruction in large parts of the world. As Philip Altbach has pointed out, this now 'gives a significant advantage to the US and the UK and to other wealthy English-speaking countries' in the international student market (Altbach 2007, p. 127).

But the most significant legacy of empire is the dominance of the university itself as the pre-eminent institution for higher education. At the time of its emergence in Medieval Europe the university was one of a variety of institutions of learning that drew students across borders. During the Islamic Golden Age and into the early modern period, students travelled to study with holy men and scholars were drawn to the courts of the caliphs, with this practice continuing up until the arrival of western colonisers (Jöns 2015, p. 17). Similarly, in the Confucian world, the civil service exam drew many scholars to China up until the nineteenth century (Huff 2003; Touati 2010; Kim 2009), and in South Asia and the Islamic world, madrasa offered legal, medical as well as liberal and religious education. As indicated above, the establishment of colonial universities by European empires was a way of extending dominion by providing much of the expertise needed to map and regulate and govern. But the universities of empire also served to sanction what counted as knowledge. In determining how the world should know about itself, European universities and their languages of instruction appropriated, displaced and erased other forms of knowing. Unpicking this relationship between empire and knowledge has been central to the project of post-colonial theory since its emergence in the 1970s (e.g. Said 1979). The transnational geographies that have long dominated global higher education are in many ways the consequence of the European-ness of the university and the enslavement – intellectual and physical – that underpinned its empires. Only within the last ten years, with the rapid growth of universities in the Middle East and Asia, has the long established pattern by which students from parts of the world formerly under European rule have travelled to the old centers of empire and to their off-shoots for higher education, begun to alter.

The nation-state continues to be a force that shapes the landscapes of higher education. Although in some parts of the world the governments seem to be retreating from direct funding of higher education, in countries such as Singapore, China and in the Middle East, they are making significant contributions. Everywhere states use competitive research funding to incentivize the direction of university activity and they also operate immigration policies that have a dramatic effect on international staff and student recruitment. If since the 1990s the liberalization of trade policies has entailed visa regimes that favour knowledge workers such as academics, doctors and engineers, this is rarely straightforward and popular politics has sometimes led to their restriction. Higher education has long functioned as a branch of foreign policy and vehicle of cultural diplomacy (Iriye 1997). From the British Commonwealth scholarships, to the Fulbright Fellowships and more recently the expansion of Chinese Confucius Institutes, study has been seen by states as a way of influencing politics (Bu 2003; Perraton 2014; Hartig 2011). If the current era is one of de-territorialised financial, intellectual and mobility structures, it is no less one in which nation-states seek influence and control over the institutions of knowledge.

But states have never been the only patrons of universities. If the Church and religious orders dominated university funding in the Middle Ages, Monarchs, rulers and other leading figures have long made influential benefactions for their own political and individual ends. The effect of these in the present is significant. Universities that entered the modern period with large endowments, often the legacy of political or religious strife or of the proceeds of empire, are at a considerable advantage when it comes to mobilizing the huge sums necessary to invest in large-scale research, weathering the storms of regulatory change, and attracting world-class researchers and further bequests (Wilder 2013). Since late nineteenth century this has taken the form of "big philanthropy", which has been closely associated with university development. Not only have many American universities benefited from significant direct donations by wealthy individuals seeking to secure their legacy and establish their good name, but institutions like the Rockefeller, Carnegie and Ford foundations continue to offer conditional grants that direct research not only in the United States but across the globe. More recently they have been joined by organizations such as the Clinton and Gates foundations. The growth of scientific industries globally has similarly meant that financial relationships with business (closely linked to the growth of intellectual property regimes) have become important streams of funding and in determining the direction of research and curricula (Forsyth 2014). But a large portion of university income is increasingly coming from a much more quotidian source: student tuition fees. After an era in which, in some states at least, study at university has been of minimal cost to students, universities constrained by government-imposed caps on domestic student fees are recruiting large numbers of full fee-paying international students to help balance their accounts. Moves to raise domestic student tuition fees are also well advanced, with the burden of debt often falling heaviest on those from poorer backgrounds.

There have always been conditions upon entry to university. These have variously included religious confession, political allegiance, race, gender, social class, language proficiency, and scholarly merit. But, with the possible partial exception of public higher education of the second part of the twentieth century, the ability to pay has been a constant requirement. Thinking about questions of equity and admission points to geographies of higher education that draw a connection between scholarly mobility at an international level, and other kinds of mobility. Joanna Waters has shown that in Hong Kong it is students from less privileged social groups who undertake the degrees by foreign providers in the city, falsely believing these courses to be identical to those universities offers in their home country (Waters 2012).

As international travel becomes something that measurably enhances employment in highly competitive markets, more people are seeking to acquire it (European Commission 2014). Recent UNESCO statistics suggest there is a trend for international students to stay closer to home, with regional hubs developing as favoured destinations. The Arab States now attract 26% of students from its region, and South Africa attracts 22%. 'Lower travel costs', it is suggested, 'and cultural familiarity are part of the appeal' (UNESCO 2014).

These shifts point to new global geographies of mobility in which the questions of local and "universal" continue to apply. A minority of international students (usually those able to mobilise the requisite social and financial capital to fund appropriate secondary education) succeed in gaining entry to high-prestige universities that dominate the global rankings lists, while the majority of international students go to middle-tier institutions or to regional hubs. But students are staying close to home in another sense as well. The largest proportion of students attend their local university, never travelling abroad. In Australia, for example, nearly 77 per cent of undergraduate students studying at university in 2014 were domestic students, and 85 per cent of these applied to a university in their home state (Department of Education and Training [DET] 2015a 2015b). These variously mobile students are not all seeking the same kind of learning, and policies designed to attract international students may sit awkwardly with local constituencies seeking training for careers regulated by national professional bodies and state governments. Similarly, an institution's research profile may have little bearing either on the degrees international students undertake or on attracting students in the massified local market, but it does contribute to status in the global rankings that are thought to attract international students (Jöns & Hoyler 2013). The transnational geographies of academic mobility therefore intersect with questions of curricula in complex ways. The questions universities need to ask themselves as they seek to navigate this new alignment of local and "universal" concern who they serve and the source of their legitimacy.

Scholarly mobility in the 21st century is often taken as a voluntary phenomenon, motivated by student choice, aspiration and economic opportunity. But if the long history of academic travel points to anything, it is surely to the significant role played by war and conflict in shaping the routes of transnational higher education. In the twentieth century the importance of refugee scholars fleeing Europe in the wake of the Nazi regime have been much studied. The Vietnam War, the Cold War, the Iranian Revolution and the Iran-Iraq war among many any conflicts have forced thousands of intellectuals to seek refuge abroad. The places they settled were rarely of their choosing. Wars move armies as well as civilians, and are fought with forms of expertise closely connected to universities and their graduates who, in turn, often become its targets (e.g. Simpson 1999). All the major conflicts of the twentieth century show evidence of this, but the development of nuclear physics in the Second World War exemplifies it. In many states, the military is a direct funder of university research and also a force in international student mobility: Sandhurst in Britain and West Point in the United States draw in the military personnel from across the globe, and send their own students out on exchanges that are intelligence missions in a double sense (Perraton 2014; Atkinson 2014).

Conclusion

Universities sit between these local and "universal" forces. Their long history shows them to be dynamic and vital institutions that have successfully adapted to changing contexts, repeatedly reinventing themselves. The 'uniqueness of the university', argues Harold Perkin, 'lies in its protean capacity to change its shape and function to suit its temporal and sociopolitical environment while retaining enough continuity to deserve its unchanging name'

(Perkin 1984, p. 18). Indeed, it is the historicity of the processes of gathering, analyzing, disseminating and employing knowledge – so often assumed to be unchanging – that brings to the fore the political character of the university (Burke 2012, p. 7).

This chapter has pointed to three factors that have a direct bearing on the way we understand global higher education in the 21st century. First, the success or failure of the university has been shaped by the way it has navigated the shifting politics of the local and the "universal" since its inception. The way the university treats this problem in our own period will shape its future. Yet it is already evident that there is a diversity of responses among institutions and that this heterogeneity (that makes it difficult to meaningfully speak of "the university" as a single institutional form any more) points to the unbundling of the multiple functions that once came together in the modern university. Second, unequal geographies or "worlds" of higher education – transnational but not global – have always characterized universities and scholarly mobility. Although they speak the language of the "universal" they more usually serve a region or a "world" (that may or may not be geographically contiguous). What this means in the face of the international student market, MOOCs, branch campus arrangements, and formal associations such as the World Universities Network (WUN), Universitas21 or Asia-Pacific Rim Network is still to become clear. But universities would do well to think carefully about their constituencies and what comprises them.

Finally, to make sense of higher education in our own time, we need to attend to the ongoing effects of inherited structures. It is no surprise that wealthier institutions are well placed to navigate the changing winds of the local and the "universal". It is they who have taken the lead in offering online courses, leading big collaborative and high investment projects; they who tend to rank highly on research measures and have the ability to negotiate to their advantage with governments at home and abroad. The past leaves its mark on the present and behind the so-called "global" world of higher education lie geographies of religion, language, empire and class that continue to condition the direction of scholarly travel, and the lines of institutional action and association. Attending to this history shows universities to be dynamic and deeply political institutions, constantly trying to navigate the shifting terrain between local exigencies and what counts as "universal" knowledge. It is only by seeing them as such that we can understand the transnational politics of higher education in our own age.

Works cited

Altbach, PG 2007, 'Globalization and the University: Realities in an Unequal World' in JF Forest and PG Altbach, *International Handbook of Higher Education, Vol. 1*, Springer, pp. 121-139.

Anderson, R 1983, *Education and Opportunity in Victorian Scotland: Schools & Universities*, Clarendon Press, Oxford.

Atkinson, C 2014, *Military Soft Power: Public Diplomacy through Military Educational Exchanges,* Rowman & Littlefield, Maryland

Bartholemew, JR 1978, '"Japanese Modernity" Japanese Modernization and the Imperial Universities, 1876-1920', *The Journal of Asian Studies*, vol. 37, no. 2, pp. 251-271.

Bu, L 2003, *Making the World Like US*, Praeger, New York.

Burke, P 2000, *A Social History of Knowledge, Vol. I: From Gutenberg to Diderot*, Polity Press, Cambridge.

_____ 2012, *A Social History of Knowledge, Vol. II: From Encyclopedié to Wikipedia*, Polity Press, Cambridge.

Campus France 2013, *le Notes De Campus France*, viewed 1 July 2015 http://ressources.campusfrance.org/publi_institu/agence_cf/notes/fr/note_07_hs_fr.pdf

Cobban, AB 1975, *The Medieval Universities: Their Development and Organization* Methuen, London.

Crystal, D 1997, *English as a Global Language,* Cambridge University Press, Cambridge.

Department of Education and Training 2015a, *2014 First half year student summary*, viewed 20 May 2015, https://docs.education.gov.au/system/files/doc/other/2014firsthalfyearstudentsummary.pdf

Department of Education and Training 2015b, *Undergraduate Applications, Offers and Acceptances 2014*, viewed 20 May 2015, https://docs.education.gov.au/system/files/doc/other/undergraduate_applications_offers_and_acceptances_2014_0.pdf

Dobbins, M & Knill, C 2014, *Higher Education Governance and Policy Change in Western Europe: International Challenges to Historical Institutions*, Palgrave Macmillan, New York.

European Commission 2014, *Erasmus – Facts, Figures & Trends. The European Union support for student and staff exchanges and university cooperation in 2012-13,* Luxembourg, Publications Office of the European Union, viewed 5 March 2015, http://ec.europa.eu/education/library/statistics/ay-12-13/facts-figures_en.pdf.

Forsyth, H 2014, *A history of the Modern Australian University*, University of NSW Press.

Franzoni, C et al. 2012, *Patterns of International Mobility of Researchers: Evidence from the GlobSci Survey*, Paper Prepared for the International Schumpeter Conference, July 2012, Brisbane, Australia, viewed 19 April 2015, http://www.aomevents.com/media/files/ISS%202012/ISS%20SESSION%207/Scellato.pdf.

Gardner, DP 2012, 'Clark Kerr: Triumphs and Turmoil' in S Rothblatt (ed.), *Clark Kerr's World of Higher Education Reaches the 21st Century: Chapters in a Special History*, Springer, New York, pp. 207-238.

Gevers, L & Vos, L 2004, 'Student Movements' in W Ruegg (ed.), *Universities in the Nineteenth and Early Twentieth Centuries (1800-1945)* of W Ruegg (gen. ed.), *A History of the University in Europe*, vol. II, Cambridge University Press, Cambridge, pp. 269-362.

Goodman, D 1994, *The Republic of Letters: A Cultural History of the French Enlightenment*, Cornell University Press.

Grafton, A 2009, *Worlds Made by Words: Scholarship and Community in the Modern West*, Harvard University Press.

Hartig, F 2011, 'Confucius Institutes and the Rise of China' *Journal of Chinese Political Science*, vol. 17, no. 1, pp. 53-76.

Huff, T 2003, *The Rise of Early Modern Science: Islam, China, and the West*, Cambridge University Press, Cambridge, UK

IDEA Consult 2010, *Study on Mobility Patterns and Career Paths of EU Researchers. Brussels,* viewed 1 July 2015, http://ec.europa.eu/euraxess/pdf/research_policies/MORE_final_report_final_version.pdf

Iriye, A 1997, *Cultural Internationalism and World Order*, The Johns Hopkins University Press, Baltimore.

Jöns, H & Hoyler, M 2013, 'Global geographies of higher education: the perspective of world university rankings', *Geoforum*, vol. 46, pp. 45-59.

Jöns, H 2015, 'Modern school and university', in BV Lightman (ed.), *Blackwell Companion to the History of Science*, Blackwell, Oxford.

Josephson, P, Karlsohn, T & Östling, J (eds.) 2014, *The Humboldtian Tradition: Origins and Legacies*, Leiden, Brill.

Kearney, HF 1970, *Scholars and Gentlemen: Universities and Society in Pre Industrial Britain,* Cornell University Press.

Kerr, C 1990, 'The internationalisation of learning and the nationalisation of the purposes of higher education', *European Journal of Education*, vol. 25, no. 1, pp. 5-22.

Kim, T 2009, 'Confucianism, Modernities and Knowledge: China, South Korea and Japan'. in R Cowan & AM Kazamias (eds.), *International Handbook of Comparative Education,* Springer, Netherlands.

Livingstone, DN & Withers, CWJ 2011, *Geographies of Nineteenth Century Science*, The University of Chicago Press, Chicago.

Mukherjee, S 2009, *Nationalism, Education and Migrant Identities: The England Returned*. Routledge, London.

Nardi, P 2003, 'Relations with Authority', in H de Ridder-Symoens (ed.), *Universities in Early Modern Europe (1500-1800),* of W Ruegg (gen. ed.), *A History of the University in Europe,* vol. II, Cambridge University Press, Cambridge, pp. 77-107.

Nyberg-Sørensen, N, Van Hear, N & Engberg-Pedersen, P 2002, 'The Migration-Development Nexus Evidence and Policy Options State-of-the-Art Overview', *International Migration,* vol. 40, no. 5, pp. 3-47.

OECD 2014a, *OECD Education at a Glance 2014,* viewed 24 April 2015, http://www.oecd.org/edu/Education-at-a-Glance-2014.pdf

OECD 2014b, 'Indicator C4: Who studies abroad and where?', in *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/888933118656.

OECD 2012, *Education at a Glance OECD Indicators*, viewed 24 April 2015, http://www.uis.unesco.org/Education/Documents/oecd-eag-2012-en.pdf.

Perkin, H 1984, 'The historical perspective', in BR Clark (ed.) *Perspectives on Higher Education: Eight Disciplinary and Comparative Views*, University of California Press, Berkeley, pp. 17-55.

Perraton, H 2014, *A History of Foreign Students in Britain*, Palgrave Macmillan, Basingstoke.

Perraton, H 2009, *Learning Abroad: A History of the Commonwealth Scholarship and Fellowship Plan*, Cambridge Scholars Publishing, Cambridge.

Pietsch, T 2013, *Empire of Scholars: Universities, Networks and the British Academic World, 1850-1939*, Manchester University Press, Manchester.

Porter, R 1996, 'The Scientific Revolution and universities', in H de Ridder-Symoens (ed.), *A History of the University in Europe,* of W Ruegg (gen. ed.)*, Universities in Early Modern Europe (1500-1800)*, vol. II, Cambridge University Press, Cambridge, pp. 531-562.

Reuben, J 1996, *The Making of the Modern University: Intellectual Transformation and the Marginalization of Morality*, The University of Chicago Press, Chicago.

de Ridder-Symoens, H 1996, 'Mobility', in H de Ridder-Symoens (ed.), *Universities in Early Modern Europe (1500-1800)*, of W Ruegg (gen. ed.), *A History of the University in Europe,* vol. II, Cambridge University Press, Cambridge, pp. 416-448.

de Ridder-Symoens, H (ed.) 1992, *A History of the University in Europe, Universities in the Middle Ages*, vol. I, Cambridge University Press, Cambridge.

Roberts, J, Cruz, R, Agueda, M, Herbst, J 1996, 'Exporting Models', in H de Ridder-Symoens (ed.), of W. Ruegg (gen. ed.), A History of the University in Europe: Universities in Early Modern Europe (1500–1800), vol. II, Cambridge University Press, Cambridge, pp. 256–284.

Said, EW 1979, *Orientalism*, Vintage Books, New York

Schaffer, S, Roberts, L, Raj, K & Delbourgo, J (eds.), 2009, *The Brokered World: Go-Betweens and Global Intelligence, 1770-1820*, Science History Publications, Sagamore Beach.

Schwartzman, S, Botelho, AJ, de Silva, A & Cristophe, M 2007, Brazil, in S Schwartzman (ed.), *University and Development in Latin America: Successful Experiences of Research Centers,* Sense Publishers, Rotterdam, pp. 145-200.

Shapin, S 1996, *The Scientific Revolution*, University of Chicago Press, Chicago.

Shils, E & Roberts, J 2004, 'The Diffusion of Models Outside Europe' in W Ruegg (ed.), *Universities in the Nineteenth and Early Twentieth Centuries (1800-1945)*, of W Ruegg (gen. ed), *A History of the University in Europe*, Cambridge University Press, Cambridge, pp. 163-230.

Simpson, C (ed.) 1999, *Universities and Empire: Money and Politics in the Social Sciences During the Cold War*, New Press, New York.

Sivasundram, S 2010, 'Global Histories of Science' *Isis*, vol. 101, no. 1, pp. 95- 158.

Swyngedouw, E 2010, 'Globalisation or "Glocalisation"? Networks, Territories and Rescaling' *Cambridge Review of International Affairs,* vol. 17, no. 1, pp. 25-48.

Taylor, PJ, Hoyler, M & Evans, DM 2008, 'A Geohistorical Study of 'The Rise of Modern Science': Mapping Scientific Practice Through Urban Networks, 1500–1900', *Minerva*, vol. 46, pp. 391–410.

Touati, H 2010, *Islam and Travel in the Middle Ages*. University of Chicago Press, Chicago.

UNESCO 2009, *Trends in Global Higher Education: Tracking An Academic Revolution*, A Report Prepared for the UNESCO World Conference on Higher Education, viewed 19 April 2015, http://www.uis.unesco.org/Library/Documents/trends-global-higher-education-2009-world-conference-en.pdf

UNESCO 2014, *Global Flow of Tertiary Level Students*, viewed 19 April 2015, http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx

Vandermeersch, PA 1996, 'Teachers', in H de Ridder-Symoens (ed.), *Universities in Early Modern Europe (1500-1800)* of W Ruegg (gen. ed.), *A History of the University in Europe,* vol. II, Cambridge University Press, Cambridge, pp. 210–55.

Vincent-Lancrin, S 2006, 'What is Changing in Academic Research? Trends and Future Scenarios' *European Journal of Education*, vol. 41, no. 2, pp. 169-202.

Waters, JL 2012, 'Geographies of international education: mobilities and the reproduction of social (dis)advantage', *Geography Compass*, vol. 6, no. 3, pp. 123-136.

Webster, F 2013, 'The postmodern university, research and media studies', *Journal of Biological Physics and Chemistry*, vol. 13, no. 3, pp. 96-104.

Wilder, CS 2013, *Ebony and Ivy: Race, Slavery, and the Troubled History of America's Universities*, Bloomsbury, New York.

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