

Session 1

The Americas

(Chair: Imre Demhardt)



Military or Missionary Map? The First Topographic Map of Northern New Spain (1725–1729)

Mirela Altic

Institute of Social Sciences, Zagreb, Croatia
mirela.altic@gmail.com

ABSTRACT

The first topographic map of northern New Spain appeared as part of the military inspection of the borderland carried out by Brigadier General Pedro de Rivera y Villalón (1724–1728). Compiled by the military engineer Francisco Álvarez Barreiro between 1725 and 1729, this remarkable manuscript map, comprising of six sheets, is known as the earliest official military map of the northern Spanish borderland. However, apart from the northern edge of the Spanish Empire in New Mexico and Texas, the map also covers the vast area of Sonora, Sinaloa, Nayarit and Nueva Biscaya, reaching all the way to central Mexico.

Although based on an original field survey and compiled with the clear military purpose of reinforcing the borderland, the map shows strong resemblance with Jesuit maps of the same region. In its style of presentation of the relief and symbolization used for the settlements, Álvarez Barreiro’s map looks like a rather typical missionary map. How did that come about, and did the Jesuits contribute to its content? Based on original research of the sources of military and Jesuit provenance, the paper analyses the role the Jesuits played in the appearance of this map, as well as how this map affected the subsequent Jesuit mapping of the region. Moreover, on this example we discuss how Jesuit mapping influenced the early military cartography (and vice versa) in general.

BIOGRAPHICAL NOTE

Dr. Mirela Altic is a chief research fellow at the Institute of Social Sciences in Zagreb, Croatia. In the Department of History, University of Zagreb, Dr. Altic holds the rank of full professor and lectures on the history of cartography and historical geography. Besides her specialization in South Eastern and Central European map history, last few years she publishes extensively on the Jesuit cartography of Americas and conducts research in European and American Jesuit archives and libraries. She is the author of twelve books, numerous scholarly papers and a contributor to The History of Cartography Project. She is Vice-Chair of ICA Commission on the History of Cartography and Vice-President/President Elect of SHD.)



The journeys of a Central American canal, 1790-1838

Sophie Brockmann

De Montfort University, Leicester
Sophie.brockmann@dmu.ac.uk

ABSTRACT

This paper examines the temporal and geographical journeys of the cartography of a project to connect the interior of Central America (Guatemala City) with the Caribbean coast through new roads or a canal. Although little progress was made on the construction of this project in the period concerned, the idea of finding new connections between interior and coast was the concern of successive imperial and post-colonial governments and foreshadowed nineteenth-century projects for a trans-isthmian canal in Nicaragua or Panama. This idea, as I show, was originally rooted in the local reform concerns of a small group of merchants, officials and scholars in Guatemala City.

Using engineer’s surveys, maps, government documents and newspaper reports from archives in Guatemala, Spain, and the UK, I show how different interest groups made their arguments for a canal in a visual manner. Central America, by virtue of its peripheral position within the Spanish empire, developed its own language of cartography that was influenced by imperial priorities on the one hand, and local understandings of space on the other. Maps of the interior tended to reflect local and indigenous conception of space and travel, while coastal maps were focused on the Madrid imperial government’s concerns. In canal and coastal road projects, these worlds collided and formed a new language for articulating infrastructure concerns.

The different formats that arguments around the canal took also betray an overriding concern with the nature of the landscape surrounding it, and the perfectibility of the environment that would enable the infrastructure to function. These were the concerns and ideals of Enlightenment reform which crept into surveys that purported to document the routes analytically. The projects show the influence of local Enlightened reform movements articulated by a coalition of scholars, local officials and merchants (the *Sociedad Económica de Amigos del País* and the *Consulado de Comercio*). The longevity of these projects shows how this Enlightened rhetoric, without necessarily being explicitly expressed, influenced ideas of infrastructure in the Iberian world and beyond into the nineteenth century.

Some of these maps were passed on to and copied by the Royal Geographical Society in London in the 1830s. Projects originally borne out of local merchants’ particular concerns and local officials’ language of economic reform thus left an international legacy that became part of the internationally connected world of the nineteenth century, and a new global imagination of the world’s infrastructure represented by the RGS.

BIOGRAPHICAL NOTE

I’m a VC2020 Lecturer in History at DeMontfort University, Leicester. I hold a BA in Ancient and Modern History from Oxford, and an MPhil and PhD in History of Science from Cambridge. I have held fellowships at the John Carter Brown Library, Max Planck Institute for the History of Science, and Smithsonian, as well as (most relevant to this conference) a National Endowment for the Humanities summer fellowship in ‘Mapping the Americas’ at the Newberry Library, Chicago. My book ‘Science and Enlightenment in Central America’ will be published by Cambridge University Press in 2019.

Symposium “Mapping Empires: Colonial Cartographies of Land and Sea”
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



Mapping *Magallanica*: Spanish Cartography of ‘Patagonia’ in the Late 18th Century

Elizabeth Chant

University College London
elizabeth.chant.17@ucl.ac.uk

ABSTRACT

Magellan’s “discovery” of a passage to the Pacific Ocean became of paramount importance to the Spanish imperial project following the return of his fleet to Seville in 1522. At the heart of Spain’s attempt to capitalise upon what was to become a key trade route and location of grave naval significance was cartography. The region north of the eponymous Strait, depicted on early modern European maps under a variety of names including *Magallanica*, the ‘Patagonian Desert’, and the ‘Province of the Strait of Magellan’, had to be mapped in order to be settled and brought firmly under Spanish jurisdiction. However, the inhospitable climate of this region that we now know definitively as ‘Patagonia’ swiftly quelled King Felipe II’s initial colonising efforts in the 1580s. No further colonisation attempts were made until the 1780s, and accurate topographical information regarding this ‘deserted corner of the Spanish Empire’ remained scarce throughout most of the early modern period.

In this paper, I consider a crucial moment in Spanish-produced cartography of ‘Patagonia’ in the final decades of the 18th century. A plethora of hydrographic charts and topographic maps were created in order to address Spain’s ongoing concerns regarding British interests in the South Atlantic following the 1770 Falklands Crisis, and to facilitate the second colonisation attempt, which was once again met with considerable failure. Using materials produced by cartographer José Custodio de Sá y Faria (1710-1792), royal hydrographer and cartographer of the Malaspina expedition Felipe Bauzá (1764-1834), and the lesser known artist and cartographer Alejo Berlinguero (1750-1810), I analyse the discrepancies discernible in late 18th century maps of ‘Patagonia’ in order to understand how Spain conceived of the region as a tenuous part of its Empire. This elucidates the continuing issue of Patagonia’s contested borders in the present day, as the wildly varying toponomy and iconography used on maps of the region enable us to trace the desolate mythology that has persisted for centuries. In contrast with Spain’s widely successful colonisation efforts further north in the Americas, ‘Patagonia’ remained a location at the limits of the imperial fantasy, a nature that could not be conquered even by the greatest Enlightened statesmen. I argue that Patagonian geography can therefore be recognised as not only contradictory, but also violent, particularly in the omission of indigenous populations from these maps.

BIOGRAPHICAL NOTE

Elizabeth Chant is a PhD candidate in the department of Spanish, Portuguese and Latin American studies, University College London. Her AHRC-funded research investigates the complex evolution of representations of Patagonia from 1520 to the present day using a variety of cultural media such as maps, film, literature and art. Chant’s current PhD work is concerned with the development of cartography of Patagonia in the early modern period, and how it established the region’s contested geography. Her first book chapter, which analyses the decision of maverick Argentinean director Lisandro Alonso to film in Patagonia, is forthcoming.

Session 2

The Far East - 1

(Chair: Ferjan Ormeling)

Symposium “Mapping Empires: Colonial Cartographies of Land and Sea”
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



A View from Inside: Chinese Mapping of the World against the Backdrop of Colonial Experiences

Laura Pflug

Leibniz Institute for Regional Geography, Schongauerstr. 9, 04328 Leipzig, Germany
L_Pflug@ifl-leipzig.de
+49 341 600 55-137

ABSTRACT

The colonial landscape in China during the second half of the ‘long nineteenth century’ was a patchwork of colonies like Hong Kong and other structures of colonial influence like the International Settlement in Shanghai. China’s defeat in the Opium War (1839-1842) laid the ground for successive colonial expansion on its territory. The experiences in the aftermath of the war gradually sharpened Chinese intellectuals’ focus on world geography and thus, while the outside world was gaining spheres of influence in China, Chinese cartographers increasingly turned their gaze to this outside world and created world maps and atlases.

During the second half of the 19th and the first decades of the 20th century Hong Kong and Shanghai became centers of transcultural encounters, trade, translation, and publishing. This was also a time when reform-minded Chinese intellectuals saw the need to acquire English language skills, collect and translate foreign cartographic materials, and travel abroad. In the interplay between cosmopolitan experiences and efforts to strengthen China they created and published new Chinese cartographic visualizations, which also comprised thematic world maps.

Based on Chinese maps and atlases from the ‘long nineteenth century’ this presentation will address a view from inside a country that was partially exposed to colonial influences. It will look at the impact of colonial experiences on cartography in China and the way Chinese mapmakers presented the world around them through maps.

BIOGRAPHICAL NOTE:

I am a research fellow at the Leibniz Institute of Regional Geography in the research group “Maps of Globalization: The Production and the Visualization of Spatial Knowledge”. Within this project I analyze Chinese cartographical visualizations from the 1860s until today. I have received my M.A. in Sinology as well as History and Society of South Asia from the Humboldt University of Berlin, where I have taught courses on modern and classical Chinese as well as Chinese culture and history after graduation. I am also a PhD candidate at the Ruhr University Bochum focusing in my thesis on Chinese historical geography.



From Ezo to Hokkaidō – “Connected cartographies” & the Japanese mapping of the Ainu lands (18th-19th centuries)

Noémi GODEFROY

Associate Professor at INALCO

ABSTRACT

From the 1630s, Japan’s ultramarine diplomacy and commerce were restricted by the Tokugawa shoguns, and the Japanese forbidden from leaving the realm. Consequently, early modern geographic knowledge was first elaborated by “connecting geographies”, as Dutch learning scholars and *literati* compiled, confronted, and crosschecked Japanese, Chinese, and European sources –old and new-, to produce maps and treatise.

Yet, from the 1770s, Russian encroachment in the Southern Kurile led Japan’s intellectual elites to realise the potential threat posed by their newfound neighbour, and the insufficiency of their geographical knowledge of the region lying beyond Japan’s only land border. In fact, until the final decade of the 18th century, the Ainu lands (*Ezo*), what we now know as Hokkaido, and the Southern Kurile, had yet to be properly surveyed... and claimed.

In the advent of an increasing pressure from European and Russian powers cruising the Pacific, Japanese cartography had to adapt, and adopt a more outward-bound approach, one that would allow the realm to protect itself from foreign threats, and that would legitimate territorial sovereignty on its Northern fringes.

In order to do so, in 1785 and 1798, the shogunate sent out two missions north to assess Russian presence and produce the first exploratory maps of the Ainu lands. In 1800, an unprecedented cartographic project, initiated by Inô Tadataka in Hokkaido, led to the completion of the *Map of Japan's Coastal Area* in 1816. These maps materialise the emancipation and modernization of Japanese cartography, as well as early modern Japan’s colonial endeavours in East Asia. In fact, the mapping of the Ainu lands coincided with the expansion of Tokugawa rule on the region between 1799 and 1807.

By analysing the mapping of the Northern borderlands, I aim to bring to light two phenomena: the circulation of maps and cartographic knowledge between Japan and Europe (“connected cartographies”), at a time when Japan is still considered a “closedoff realm”, and the evolution of Japanese cartography in an imperial age. Based on a thorough analysis of the maps pertaining to Ainu space, between 1785 and 1816, my presentation will reveal three parallel evolutions in Japanese maps: the shift from a centripetal vision to a centrifugal vision of the realm, from an erudite to a strategic use of maps, from a traditional to a scientific approach to mapmaking.



Imperial grounding: maps, modernity and the 1876 Geological Sketch Map of the Island of Yesso

Edward Boyle

Kyushu University
tedkboyle@gmail.com

ABSTRACT

In January 1873, an American geologist named Benjamin Smith Lyman arrived in Tokyo, Japan, in order to teach at a school there. This school had been established by the *kaitakushi*, the colonization department responsible for the development and settlement of the island of Hokkaido, an integral part of Japan since its proclamation in 1869. Prior to being incorporated into Japan’s traditional geography as its newest imperial circuit, the island of Hokkaido had been referred to as *Ezo*, a distant region inhabited by a ‘barbarous’ indigenous population whose relations with the rest of Japan were ambiguous. The establishment of the *kaitakushi*, and its employment of a string of foreign, largely American, advisors, indicated the determination of the state to transform this amorphous, uncivilized space into a modern, ordered, Japanese place.

Within three months, Lyman and his assistant, Henry Smith Munroe, were heading north with their students to conduct geological surveys of this now Japanese land. Over the following three years, they spent the summer surveying the geology of different parts of the island, while continuing their instruction in the winter months. In 1876, a geological map of “Yesso” was compiled under Lyman’s direction. This displayed the assumed stratigraphy of Hokkaido, and is generally considered, in Japan at least, the first modern geological map to be produced in East Asia. It was, therefore, also the first made of Japan, focusing on a region in the process of being colonized. It therefore offers a striking example of colonial modernity.

The strata exhumed in the course of mapping this land at depth were not limited to those under the earth, however. The map was assembled atop a history of Japanese control over the region, one which accounted for the precocious presence of an earlier American survey, conducted under the previous Tokugawa government, which had sought to map mineral deposits in this land of “Yesso”. These in turn reflected a longer history of mineral extraction, present in the earliest accounts of *Ezo*, and a motivation for Japan to have long “held the reins” over this amorphous region.

The 1876 geological map not only shows the institutional mimicry characteristic to, and increasingly emphasized in the study of, late-nineteenth century inter-imperial society, but also challenges us to recover the various strata that provided the ground upon which this imperial sociability was able to flourish. This paper shall examine the map’s production and recover its institutional and cultural significance.

BIOGRAPHICAL NOTE

Edward Boyle is an Assistant Professor at the Faculty of Law, Kyushu University. Much of his research, including his doctoral thesis, has concentrated upon the incorporation of Japan’s north into the space of the state from the seventeenth to nineteenth centuries, looking at the cartography of the region as well as the concepts of territory underpinning it. He also examines contemporary practices of bordering and the multiscale nature of borders under globalization, in connection with which he is engaged in research on Japan, Georgia and Northeast India. His work intersects with political science, geography, history, and scholarship on international relations.

Session 3

Africa

(Chair: Elri Liebenberg)

Symposium “Mapping Empires: Colonial Cartographies of Land and Sea”
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



Charting the Skeleton Coast: From Neglect to Exploitation and Colonial Rivalry

Imre Josef Demhardt

Department of History, University of Texas at Arlington, United States of America
demhardt@uta.edu

ABSTRACT

Bartolomeo Dias in 1488 was the first European to make landfall in southwestern Africa, but the barren coasts of the Namib Desert between the mouths of the Cunene (17° 15' 9" S) and Orange Rivers (28° 33' 6") for the next three hundred years attracted little attention and cartographic coverage. This changed during the nineteenth century, when enormous guano deposits on the small offshore islets (Ichaboe, 1828 and guano boom 1843-45), the supreme fishing grounds of the cold and nutrient rich Benguela Current, and, last but not least, Orange River's deposits of diamonds were discovered (1908), both on and off shore.

Topographical knowledge of the interior beyond some 1,600 km long coasts picked up in the 1850s with the arrival of European traders and missionaries. The colonial 'scramble for Africa' reached these shores in earnest in the 1870s, pitching the United Kingdom against the German Empire. This rivalry ushered in an accelerated reconnaissance of the costal hydrography and topography. On the basis of archival and printed materials the paper discusses the natural dispositions, the economic circumstances directing surveying and mapping efforts, and milestone charts and maps to log the unveiling the Namib Desert's coasts until the outbreak of the Great War in 1914.

BIOGRAPHICAL NOTE

Imre Josef Demhardt, a historian and geographer, holds the Garrett Chair in the History of Cartography at the University of Texas at Arlington. Author of numerous scholarly publications, his research interests include post-enlightenment cartography, colonialism, and Africa as a regional focus. Currently he serves as the Chair of the ICA Commission on the History of Cartography.



Mapping the Empire: the work of the Royal Engineer Colonial Survey Sections

Peter Collier

ABSTRACT

In the aftermath of the “scramble for Africa” the British government was faced with the problems of how the new colonies were to be mapped and developed. In theory, the government wanted the mapping of each colony to be funded through local revenues. While colonies with easily exploitable mineral resources could fund mapping through the sale of mineral rights, other colonies lacked such easily exploitable resources. Survey departments were established in most colonies but it soon became apparent that most lacked the suitably trained staff to tackle major mapping programmes. Following the Second Anglo-Boer War, a Royal Engineer survey section carried out a topographic survey of the newly acquired Orange River Colony. The use of the colonial survey section was subsequently seen as a model to be followed in other colonies.

The paper will explore the work carried out by these survey sections, but also the political manoeuvrings and arguments over their deployment and funding. It will discuss their successful deployments in colonies such as Sierra Leone, St Helena and Mauritius, but also the reasons for the failed attempts to extend the Orange River Colony to other parts of Southern Africa. It will also discuss the methods employed on the surveys and the types and scale of topographic maps produced. It will also consider how the failures of both the local survey departments to progress mapping at a fast enough pace and of the lack of funding to the Ordnance Survey and the War Office led on to London taking greater control through the establishment of the Colonial Survey Committee in 1905.



German names in the Kilimanjaro region

Wolfgang Crom

Staatsbibliothek zu Berlin, Map Department
wolfgang.crom@sbb.spk-berlin.de

ABSTRACT

In 2003 during the symposium *The History of Cartography of Africa*, which took place in Kapstadt, Ferjan Ormeling presented the 9 phases for colonial naming that have been undertaken since the early modern period. What he calls *phase g*) is the *Replacement of German names by English names after WW I* (Ormeling 2003: 50), which will be further investigated with the example of Kilimanjaro.

When the colonial powers had finally divided up East Africa amongst themselves, the Kilimanjaro became part of the German Reich in 1885. At the time, the assault on the summit of Kilimanjaro was regarded as an important national task and tackled as a scientific research project with the geoscientific institutes of the Leipzig University taking the lead role. The starting point of this investigation is the *Blatt D 5 Kilimandscharo Karte von Deutsch-Ostafrika* (Sheet D 5, Kilimanjaro Map of German East Africa) 1:300,000 which was created in 1911. The Kolonialkartographisches Institut, located in Berlin, was responsible for the production of the map series, which begun under the direction of Richard Kiepert and was further carried out and finished by Max Moisel and Paul Sprigade. Even before the end of the German Colonial Rule and before the region was ceded to the League of Nations, work on the reprinting of the map series by the Geographical Section General Staff (1915ff.) had begun. As a result, a comparison of the adopted toponyms and the names introduced by German expeditions for single prominent elements of a landscape has been made possible and may therefore deliver interesting results.

Large-scale maps, as for example the map of the plateau area of Mount Kilimanjaro, are also part of the investigation. This map *Karte der Hochregion des Kilimandscharo-Gebirges* which was created by Fritz Klute in 1912 and later published in 1920, includes further toponyms. In closing, we look at current trekking maps of the Kilimanjaro which will provide information on the toponyms which have remained until today. The importance of specific locations and their names can be derived from their appearance in different scale levels. The generalization necessary at smaller scales requires a selection and evaluation of relevant information, the number of toponyms contained in a map shows this interrelation and is a sign for the significance of the respective toponym. A special aspect are maps from other countries, which may give information about the internationalisation of exonyms. With such investigations, a map can obtain the character of a document which reflects contemporary issues as well as a social and political history.

BIOGRAPHICAL NOTE

Wolfgang Crom studied Geography at Bonn University and got the license as a scientific librarian. First he was editor of the Regional Bibliography Baden-Württemberg, subject librarian and chief of the map collection at the Württembergische Landesbibliothek Stuttgart. In 2000 he changed to Berlin as the head of the Map Department of the Staatsbibliothek zu Berlin. He is member of several national and international committees.

Poster Session 1

(Chair: Soetkin Vervust)



Degrees of Discord: Representations of the British Isles and North America in Eighteenth-Century Geography Books

Karen Severud Cook

Eighteenth-century students received conflicting impressions of the British Isles and its North American colonies from the written descriptions and map illustrations in their geography books. While the typeset text in new titles and editions could be updated with relative ease, the frequent re-use of engraved map plates created for earlier publications meant that map information was often out-of-date. Nevertheless, some maps were updated or created especially for the geography books they illustrated. This observation has inspired the writer to study the relationship between text and maps in eighteenth-century British and American geography books.

While the digitized geography books are accessible in Gale’s Eighteenth-Century Collections Online, drawbacks of this microfilm-sourced database include words disappearing into book gutters, illegible small place names on maps, map plates missing from the copies photographed, etc. This research has been more fully enabled by the late Barbara Backus McCorkle’s well-researched digital Carto-Bibliography of Eighteenth Century British and American Geography Books (Lawrence: University of Kansas Libraries, 2009) and by her generous donation to Kenneth Spencer Research Library of her personal collection of 125 eighteenth-century geography books (more than doubling existing holdings).

As well as providing greater legibility, access to original print copies has allowed determination of map size and scale. Compilation of comparative lists of place names from text and maps has documented the degree of correspondence in terms of both informational content and the graphic hierarchies created by sizes and styles of lettering. As well as presence or absence of corresponding place names, differences in orthography and language are also revealing. Measurement of book dimensions has indicated the limits on map size and hence on content (although some maps fold out larger than page size). In contrast, text could easily be expanded by increasing the number of pages. The sequence of presentation was also significant. The prominent placement of the British Isles near the beginning of geography books with America bringing up the rear continued until after the American Revolution. The lesser spatial extent of the British Isles compared to North America also dictated smaller-scale depiction of the latter on maps. The symbols and place names on maps of the more densely populated mother country contrasted with those on maps of the American colonies. A presentation about the results of this study will provide a more nuanced understanding of the relationship between text and maps in eighteenth-century British and American geography books.

BIOGRAPHICAL NOTE

Karen Severud Cook has been a Special Collections Librarian in Kenneth Spencer Research Library at the University of Kansas since 2001. She directed a three-year National Endowment for the Humanities-funded project to digitize the library’s collection of John Gould ornithological books and over 2000 associated preparatory graphics. Earlier she was an associate editor of *The History of Cartography, vol. 6, The Twentieth Century*, published by University of Chicago Press in April 2015. Her academic background in art history, geography, and cartography and earlier work experience as a cartographer inspire and inform her research and publications about the history of cartography.

Symposium “Mapping Empires: Colonial Cartographies of Land and Sea”
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



Colonial Maps as Linguistic Data Sources

Jascha Döschner

University of Bremen
doeschner@uni-bremen.de

ABSTRACT

Due to the upcoming and continuous enhancement of digital name indexes since the 1990s, the relevance of maps as carriers of linguistic data has been decreasing proportionally. Concerning the interest in place names (toponyms) on the part of historical linguistics, however, some newly emerged research fields such as *Postcolonial Language Studies* and *Comparative Colonial Toponomastics* have put a stop to this marginalization. Considering divergent practices of naming in colonial areas and the metropole as well as political and/or commercial agendas by cartographers and/or authorities, the topographic – and toponymic – reality depicted on maps has come to the fore.

By the example of German colonial cartography, the paper examines some methodological stumbling blocks that any onomatologist must overcome to gain valid onymic data from historical maps. The challenges examined do not only include an awareness of intentional distortions of a mapped landscape but also of problematic aspects that have been inherent to (German colonial) cartography from 1884 to 1919. The paper thus argues for a sound background knowledge about the process of mapping and cartographic conventions in general and for a thoroughly reflected perception of maps as linguistic data sources.

BIOGRAPHICAL NOTE

Following my bachelor's degree in geography and German studies at the Ruhr-University Bochum, I received my master's degree in German studies at the University of Bremen in 2016. Since 2017 I have been working as a research assistant on German and interdisciplinary linguistics in Bremen. Taking up my never lost interest in cartography, my doctoral thesis investigates classifying elements in German and Swedish colonial place names.



Expanding the Empire, building the nation. Mapping the Magellan Strait 1780-1840.

Natalia Gándara-Chacana

University College London
natalia.gandara.16@ucl.ac.uk

ABSTRACT

As the European Empires expanded to Asia and the Pacific region in the late 18th century and early 19th century, the passages that linked the Atlantic with the Pacific Ocean began to play a more significant role for the connection and navigation of the globe. During this period, the British and Spanish empires, and the newly formed Chilean republic conducted several scientific expeditions to chart this region: Antonio de Córdova (1785-1786), Alexander Malaspina (1789-1794), Robert Fitz-Roy (1831-1835), and Juan Guillemos (1843). These expeditions transformed this waterscape into a hydrographic and scientific laboratory, by measuring, labelling, and charting this natural and peripheral space. Places like Cape Horne, the Beagle Channel, and Tierra del Fuego became the scenario of scientific and maritime inquiry. In particular, the Magellan Strait became a crucial aim for these expeditions, as they were exploring safer and quicker ways to navigate through these waters. Even though it was perceived as a dangerous place, the Magellan Strait was thought as a more efficient way to navigate between the Pacific and the Atlantic, becoming a strategic area to explore and chart. The paper will argue that the hydrographic charting of the Magellan Strait was relevant for the imperial competition system of the late 18th century, particularly between Spain and Britain, and later for maintaining the sovereignty of the Chilean republic in the 1840s, which used the maps to gain knowledge, and therefore to expand their power to this oceanic region.

The paper will explore two main ideas. First, it will address the way in which the Magellan Strait became relevant for the strategic expansion and colonial dominion of the European powers in the Americas and as a way of connecting with the Pacific region. Secondly, by studying the Chilean expedition of 1843, the paper will connect Latin American history of science in a network of cultural and scientific entanglements, challenging more traditional perspectives that depict the region as a mere consumer of European or metropolitan knowledge.

By studying maps, charts and other documents produced by the Spanish, British and Chilean expeditions of the late 18th century and early 19th century, the research wants to contribute to the study of the imperial competition system, the national project of Chile as an emergent republic, and the history of cartography and knowledge in Latin America.

BIOGRAPHICAL NOTE

History Ph.D. student, University College London (UCL), Master in History Pontificia Universidad Católica de Valparaíso (PUCV), Chile. Member of the study group Circulation of Information, Objects, and People (PUCV) and convenor member of the History Lab of the Institute of Historical Research (IHR). My research interests are the scientific, cultural and intellectual history of Latin America in the colonial and early republican period.



NUEVA GRANADA OR GRAN COLOMBIA OR GREATER ECUADOR?

How maps reflected the decolonization of Ecuador

HARALD GROPP

d12@ix.urz.uni-heidelberg.de

ABSTRACT

The Treaty of Madrid (1750) seemed to have settled a long question which troubled Spain and Portugal since the beginning of the “discovery” of America in 1492. The borderline was shifted much further to the west than the line of Tordesillas (1494) as a consequence mainly of the so-called “Union of Spain and Portugal” between 1580 and 1640/1660 and of the Jesuit struggle of influence in the beginning of the 18th century.

In the struggle for independence in the beginning of the 19th century the Vicekingdom of Nueva Granada (1718-1819) disintegrated and partially continued as the United Provinces of Nueva Granada. A smaller unit was founded as Gran Colombia (1819-1830) consisting of Quito (Ecuador), Venezuela, Cundinamarca (Columbia) and Panama. Around 1830 this unit still split into the now existing states with Ecuador still much larger than today. Until the end of the 20th century Ecuador lost big parts of its territory to Brasil and Peru in comparison to the ideas of Greater Ecuador and the Audiencia de Quito which had been planned in the 16th century as a state along the Amazon River and the equator from coast to coast as “The Equator State”, el Ecuador.

In this talk several influential maps will be discussed starting with the Amazon map of Samuel Fritz (1707) and ending with Ecuador maps of the 20th century. The map of Fritz can be seen as a colonial map of a Bohemian Jesuit combining Spanish and Portuguese knowledge. Its production was prepared by the colonial conflict between Spain and Portugal and prepared the colonial conflict of the 18th century. Its object, the Amazon river, served as a link between sea and land, as the waterway between different sites in the region.

Later the Jesuit missions were abolished, the power of the European colonizers became smaller, and the independence movements started. The disintegration of Spanish America into different parts in general, and the disintegration of Nueva Granada in particular is accompanied by a cartographic competition of several partners, including the new independent states and the new coalitions of states.



Toponyms on a French map of Beirut, 1936

Jack Keilo

Doctoral student at the Université Paris-Sorbonne
keilojack@hotmail.com

ABSTRACT

I consider toponymic inscriptions (official toponyms and place names) as an “authorised version” of history written on space. This paper’s objective is to show how France transformed her Lebanese policy into place-names on the map of Beirut and thus created a different reality, in rupture with the past and in a symbolic and concrete consolidation of her Mandate control over Lebanon.

Under French Mandate, the Grand-Liban state was declared in 1920, and followed by a 1926 Constitution and president of the Republic. The new polity had its own “national myth”, based on phoenicianism, the mountain-refuge hypothesis and a French *mission protectrice*. That French “mission” is read on the map through the names of Gouraud, Foch, Pétain, and other army men of the WWI. Historical concepts and figures (mostly of the Mountain), considered a part of a Lebanese founding myth, were added to the map (For example “rue Fakhreddine”, “rue Justinien”, and “rue Phénicie”). As a “refuge for minorities”, Lebanon had to show it on the map: the Third Republic, very secular and often anti-clerical, tried to satisfy all religions present in town and named many important thoroughfares after saints, ulemas, and important religious figures of Christian and Muslim (For example “rue patriarcale Hoyek”, “rue Ibn Arabi”, and “rue Abou Bakr”). At the beginning of the French dominion in 1918 political martyrdom, as a concept related to nationalism, was introduced to political discourse, but also to the map : thus the main square of the city is renamed “Place des Martyrs”, with numerous streets named after journalists and politicians hanged by the Ottomans in 1915 and 1916 and hereby considered martyrs of the new Republic. These four “toponymic archetypes”, introduced by the French, are in discontinuity with the toponymic past of Beirut, where toponyms were traditional and where the city was still politically separated from its hinterland, the Mountain.

These toponymic dynamics still shape the map of Beirut till today: there has never been “toponymic cleansing” after Independence in 1943. There are more and more “martyrs” and religious figures added to the map. And, except Pétain, mandate army generals are still commemorated. In their radical change of the Beirut map the French did not only set a new toponymic pattern, in discontinuity with the city’s past, but also this Mandate-made pattern continues to shape Beirut place names today.

BIOGRAPHICAL NOTE

Doctoral student, trained as an engineer and cartographer. Toponymy of capitals, and seats of government, relation between the state and toponyms.

Foy, Keilo, 2016, *La grande hydraulique au service du pouvoir, l'exemple du Projet de l'Euphrate en Syrie (1966-2013)* [Political Power and large-scale hydro-agricultural projects : the Euphrates Project in Syria 1966-2013], « Cybergéo ». <https://cybergeo.revues.org/27505>

Keilo, 2015, *La Syrie et la guerre des noms des lieux*, « Villes arabes, cités rebelles », Roman Stadnicki (dir), Editions du Cygne.

Keilo, Montagne, 2013, *Dubai Metro and RTA Dubai Bus: local efficiency and the city's global image*, « Megaron » . <http://issuu.com/karepublishing/docs/megaron-2012-3?viewMode=magazine&mode=embed>
<http://centrici.hypotheses.org>



Leonardo da Vinci's drawing of the New World and America's oldest Cartographic Birth Certificate

Stefaan J. Missinne, PhD

Missinne@aon.at
IMCOS Rep. Austria

ABSTRACT

In the Codex Manuscript F page 68 recto dating from the early 16th century Leonardo specifically uses the words "*carta da navigare*" or map to navigate. He is referring to a Portolan Chart and in his Codices such as the Codex Leicester page 31 recto he is referring to nautical miles instead of land miles.

This paper takes a closer look at Leonardo's unknown activities in producing early maps and globes, some of which have been erroneously interpreted as pieces of textile. It also looks at some of his vernacular Italian and offers evidence that English Translations made from his Codices were erroneous and therefore misleading.

Furthermore, it offers irrefutable evidence that Leonardo not only knew about the discovery of the New World, but he actually made a drawing of the world to portray the old Ptolemaic world next to the newly discovered fourth continent i.e. Mundus Novus showing the West coast of Brazil, the East- and the West coast of Africa.

His preparatory drawing of the New World used for his globe, which includes the Colonial Divisional Line of the Treaty of Tordesillas, is one of the earliest but unrecorded maps in the history of Cartography. Leonardo not only refers to Amerigo Vespucci in his Codices but based on the above he must have had direct access to cartographic material from Vespucci, both terrestrial and celestial.

The celestial information received from Amerigo Vespucci in Florence in 1503 allowed Leonardo for his inclusion of the "*trigoni orthogoni schema*", a kite-like-asterism group of stars of an astonishing size i.e. "*unus ganopus albus eximiae magnitudinis*" enclosed in the universal orb of the Salvator Mundi auctioned at Christies for 450.000.000 USD in November of 2017. Leonardo's knowledge of these painted stars offers the Terminus Post Quem of that famous painting.

The presentation ends with the findings about America's oldest Cartographic Birth Certificate and offers evidence that Waldseemüller hardly would have constructed a terrestrial globe having 365 degrees.

@ Stefaan Missinne, PhD.

BIOGRAPHICAL NOTE:

Stefaan Missinne is a Belgian Citizen, born in Waregem, West-Flanders, Belgium in 1960 and lives in Austria. He is married to Mag. Andrea Missinne and has 2 sons, David and Alexander. He received his PhD from the Economics University in Social and Economic Sciences in Vienna in 1990. He is Laureate of the Prince Albert Foundation and Managing Director of the Ginkgo Projektentwicklungs- und realisierungsgmbh, a company active in the field of project development. For many years he lived in the USA, Latin America and Asia. As a collector of antique maps, ancient globes, original Renaissance drawings and other art chamber objects, he spend some years doing research with the Viennese Ivory and Art Expert Eugen von Philippovich. Stefaan Missinne speaks Dutch, French, English, German, Spanish and Italian. He is a member of the International Map Collectors' Society (IMCOS), the Washington Map Society, the International Coronelli Society for Research on Globes and Scientific Instruments, the Austrian Society for the History of Science and the Da Vinci Society. He is Author of numerous articles, one of which published in Washington with the Title: „*A Newly Discovered Early Sixteenth-Century Globe Engraved on an Ostrich Egg: The Earliest Surviving Globe Showing the New World c. 1504*". In April 2014 he published an article in the WMZ, Springer Verlag on "*The Oldest anatomical handmade skull of the world c. 1508*", attributed to Leonardo da Vinci. In 2015 he published in SCIRP a peer reviewed article on *America's Birth Certificate: The Oldest Globular World Map: c. 1507* and Co-Author of the 2017 peer reviewed article "*Unfolding Leonardo da Vinci's Globe (AD 1504) to reveal its historical map.*" Forthcoming (2018) is the scientific publication on *The Da Vinci Globe*. Missinne has appeared on several TV channels incl. ZDF, BR, ACTUA TV, etc.



Raffles and British Occupation in Java, a Historical and Cartographic Approach

Avianita, Heda Vanessa; Soeria-Atmadja, Dicky A.S.; Harto, Agung B.

Center for Remote Sensing – Bandung Institute of Technology (ITB), BANDUNG -
INDONESIA hedavanessaofficial@yahoo.com ; mailtodicky@gmail.com

ABSTRACT

As the Netherland was occupied by the French Empire during Napoleon’s military campaign in Europe in the early of 18th century, all of its colonies were obviously became French’s colonies. Including Java –presently in Indonesia–, a fertile island under French-Dutch control which produced highly valuable crops and spices in European markets. This particular situation encouraged the British Empire to took over the island.

Lord Minto, British Governor General in India ordered Thomas Stamford Raffles to lead a military expedition to Java. In 1811 the British Army occupied the island after a short and sharp engagement with the French-Dutch forces. Raffles was then appointed as the Lieutenant-Governor of British Java (1811-1815).

Behind what people know him as a visionary, a great leader and administrator, a number of literatures and cartographic heritages revealed controversies that marked British rule in Java. Many of these occurrences were related to places and spatial phenomena throughout the island in the early of 19th century.

To have an improved understanding regarding this short British colonial during centuries of colonization in Indonesia, a historical and cartographic approach could be chosen through developing a historical map based on literatures and cartographic heritages review. This map should be able to illustrate spatial relations among those occurrences, and users could therefore understand clearly the history and reasons behind.

BIOGRAPHICAL NOTE

Heda Vanessa AVIANITA was born in Kediri in 1997. She is currently in her 8 semester in Geodesy and Geomatics Engineering Bachelor program at Bandung Institute of Technology.

Dicky A.S. SOERIA ATMADJA, Graduated from Dept of Geodetic & Geomatics Engineering; Institute of Technology, Bandung (ITB) - Indonesia in 1994 and Industrial Management ITB in 1999. Assistant Lecturer in the Laboratory of Photogrammetry, Cartography & Remote Sensing ITB (1994-1999). GIS engineer in various government projects (1999-2003). GIS Lecturer in Land Administration Master Degree Program ITB (2003-2008). Geospatial Information experts in various government & private projects (2008-2014). Head of Development Division, Bandung Heritage Society (2013-2016). Senior Scientist in Cartography in the Center for Remote Sensing ITB (2014-present). Vice President of UNESCO-ICOMOS (International Council on Monuments & Sites) Indonesia (2014-present)

Session 4

Mapping the world

(Chair: Alex Kent)



A Map to Govern an Empire: the *Planisferio* of Juan Antonio González Cañaveras

Matthew E. Franco

Lyon G. Tyler Department of History, The College of William and Mary
mfranco@wm.edu

ABSTRACT

Following defeat in the War of the Spanish Succession (1701-1714), government officials argued that the Spanish Monarchy needed comprehensive reform, part of which would include policies informed by analysis of new, accurate geographic renderings of the realm. The Spanish Bourbon Empire underwent comprehensive state reforms throughout the long eighteenth century guided by ideals of state centralization, the rationalization of governance, and the “modernization” of state policy. Each of these aims was pursued using data and methodologies dependent on the science of geography. The process of reform was not static, but incredibly fluid. As reformers attempted to transform the Bourbon Spanish state, ministers debated the nature and purpose of the science of geography. The impacts of this reformist agenda on the Bourbon Spanish Monarchy have been well documented, including its many scientific expeditions to the Americas. This geographic data was collected in Madrid, where it informed the production of new cartographic renderings of the global Spanish monarchy. Geographic reform also affected cartographic production outside the official state machine. In 1800, Juan Antonio González Cañaveras published *Planisferio ó Carta general de la Tierra, segun los últimos descubrimientos*, a short geographic treatise accompanied by a world map. González Cañaveras was not outside the state apparatus, per se. Rather, he was a vestige of the old order. He had designed the educational program that guided the education of a generation of Spaniards who were, by the end of the eighteenth century, now the ministers leading the ongoing project of state reform. The *Planisferio* presented a radical new argument by González Cañaveras for how geography might influence the governance of the Spanish Bourbon Empire. González Cañaveras created a world map that functioned as a tool for governance by associating data collected by the scientific expeditions on climate, sea current, seasonal temperature variance, and other factors with the lattice of longitude and latitude. Further, González Cañaveras argued that by making the map a predictive, rather than representational document, imperial governance could be made more effective. While González Cañaveras failed to effect great change, his work demonstrates the evolving nature of colonial and imperial cartographies as tools of governance.

BIOGRAPHICAL NOTE

Matthew E. Franco is Visiting Assistant Professor in the Lyon G. Tyler Department of History at the College of William and Mary. His research focuses on the function of geographic science in the Bourbon Reforms, the history of cartography, the Ibero-Atlantic nexus, and early modern Spanish history. Dr. Franco is currently editing a book manuscript, tentatively titled *The Science of Reform: Geography in Bourbon Spain*. Dr. Franco earned his Ph.D. in the History of Science and Technology from the Johns Hopkins University in 2016.



Lines on the map: international boundaries

Rose Mitchell

This talk looks at one of the largest and most important accumulations of these maps in the world. Held at The National Archives of the United Kingdom, they document British government involvement in shaping boundaries and in resolving boundary disputes over many centuries, either as a colonial power, neutral observer or independent source of surveying expertise.

Every border has several sides. The maps discussed not only encompassed the British Empire, they also defined neighbouring lands and other past empires. They shaped the countries we have today. In some cases these archives hold the only surviving boundary maps, where other originals have been destroyed by conflict, climate or disaster. They can still hold authority today as part of the evidence portfolio in current international boundary discussions.

Maps were used throughout the process of making a boundary and creating a record of it, from draft maps made by statesmen in European boardrooms to boundary demarcation in the field, and to final products attached to treaties. They provided an outline on which to carry out topographic survey of lands within the boundaries. The arbitration atlas is examined, as a tool of diplomacy, an instrument of intelligence, and a specific and partisan form of historic atlas. This is the most obvious format in which to find foreign-produced maps, which were also collected by intelligence agencies throughout the British government.

Maps and surveys discussed made lines across sand, snow and ice, water, forests, plains and mountains around the globe. Specific instances examined may include the British Guiana-Venezuela boundary, part of the United States boundary with Canada, and African boundaries such as Gold Coast, Griqualand, Sudan-Eritrea, and the Nyasa-Tanganyika border.

These kinds of maps were rarely created or kept solely as cartographic constructs. They are often found with related correspondence or reports about the boundaries concerned. These papers may relate information about the maps, their makers and the circumstances of their making. They may also give insight into the degree of map awareness among policy makers, colonial governors and civil servants; for instance by showing how far these people were comfortable in reading, drawing and using maps to carry out their work. Text and map together tell a broader story than either alone, and give insight into maps and their role specifically in boundary making and more widely into their social and political role in the colonial arena.

Biographical note

Rose Mitchell is map specialist at The National Archives. Co-author of *Maps: their untold stories*, she wrote chapters on colonial maps and sea charts, among others. Rose contributed a chapter to the published proceedings of the 2014 ICA military maps symposium. She gave papers at the ICA colonial maps symposium in Utrecht in 2006, and at the 2010 IMCoS symposium ‘Britain, power and influence’, for which she also provided a document display on overseas maps. Rose runs workshops on archival research with the International Boundaries Research Unit of Durham University. She is a Fellow of the Royal Geographical Society.



Empire as Spectacle - *Harmsworth's Atlas of the World and Pictorial Gazetteer with an Atlas of the Great War*

Peter Vujakovic

Canterbury Christ Church University
Peter.vujakovic@canterbury.ac.uk

ABSTRACT

Harmsworth's Atlas of the World and Pictorial Gazetteer with an Atlas of the Great War, published c.1920, is an extravagant and extremely detailed work of geography and cartography. The world is laid before its readership as a spectacle involving four hundred and eighty-five coloured maps, and over three and a half thousand photographs of peoples and places. It celebrates the British Empire, but also explores the significant penetration of competitor powers world-wide.

The atlas is examined from a world-systems perspective, which recognises inter-regional and transnational division of the world into core, periphery and semi-periphery. Core states provide high skill, capital-intensive production, while the rest of the world provides low-skill workers for primary production and extraction industries. The system is dynamic, in part as a result of revolutions in technology, especially transportation and communications, and individual states may change status depending on their ability to adapt to change. The information contained in the atlas is consistent with the understanding needed for restructuring of the British economy following the end of the 'Edwardian Boom' and the devastation of the 'Great War', prior to which the two main lead regions in contention with Great Britain were Germany and the USA. Germany's pre-war 'peaceful penetration' of areas of British interest are dissected forensically in the section on the 'Great War'. The world-wide development of communications infrastructure, as well as industries, are covered in great detail in the atlas; which could be described as a 'road map' for reassertion of British hegemony.

The paper also draws on cultural geography to explore the way in which the atlas interpreted the world for its readership, and divides it into the rulers (core) and ruled (periphery). It examines the visual and textual means by which an 'imperial gaze' is constructed as a set of representations that reinforce the assumed superiority of the Anglo-Saxon world. Distant places and peoples are subordinated to this gaze, and their geographies constructed according to a grand imperial vision. An anthropological gaze is adopted and 'native' peoples are treated as 'types' in a manner echoing the words of Sir Sidney Low in his essay 'Geography as the Key to Knowledge' in the atlas: "I should let him [a child] see and handle Zulu spears and Maori clubs... I should show him types of different races and people."(p.iv).

BIOGRAPHICAL NOTE

Peter Vujakovic is Professor of Geography at Canterbury Christ Church University (UK). Peter's research interests in cartography span a variety of areas associated with culture and politics, from the local (disability access mapping, and 'sense of place') to the global (news media maps and geopolitics, and maps in development education). Peter is an Associate Editor (and former Editor) of the *Cartographic Journal*, co-editor of the *Routledge Handbook of Mapping and Cartography* (published in 2018) and an expert contributor to the *Times Comprehensive Atlas of the World* (14th Edition).

Symposium "Mapping Empires: Colonial Cartographies of Land and Sea"
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



Mapping against imperialism. Frank Horrabin and Alex Rado's atlases in the inter-war period

PALSKY Gilles

University of Paris 1 Panthéon-Sorbonne
gilles.palsky@univ-paris1.fr

ABSTRACT

Though radical or critical cartography are recent trends, maps that questioned the political order were conceived much sooner. In this paper, I examine the case of several atlases which were made between the two world wars, by Frank Horrabin, a British socialist, and Alex Rado, a Hungarian communist. These two authors and their cartographic work are brought together on the basis of their shared use of maps as tools to denounce and combat bourgeois imperialism. Both Horrabin and Rado presented their works as new projects, different from ordinary atlases: they wanted them to be rooted in current affairs and to provide a dynamic approach. They favored small-scale representations and demonstrated a clear awareness of the interdependence of phenomena on the globe's surface. Their cartography, which may be described as "persuasive", left much room to thematic maps, on economic and geopolitical topics. In particular, the atlases outlined specifically all forms of domination and of imperial control. Horrabin and Rado used a variety of graphic means (arrows, colors, typography, layout) to reinforce their message, which give their maps a definite relation with the persuasive maps made by German geopoliticians in the 1920s and 1930s.

The general picture that emerged from this cartography is that the world is a battlefield of imperialistic rivalries, fraught with threats and what Rado called friction points (*Reibungszone*). Founded on Marxist ideology, this cartography reserved a special place for Soviet Union, presented as a peaceful State, encircled and threatened by imperialist blocks.

BIOGRAPHICAL NOTE

Gilles Palsky is Professor of Geography at Paris 1 Panthéon-Sorbonne University and he is a member of the research unit *Epistemology and History of Geography*. He chaired the History of Cartography Commission of the French Committee of Cartography (1999-2007) and was a trustee of the *International Society for the History of the Map* (2013-2017). His research revolves around the role of images in the building of geographical knowledge and the development of thematic mapping, 19th-21st century. He is also engaged in theoretical issues in cartography: visualization of spatial dynamics, participative mapping, and semiology of graphics.

Session 5

India

(Chair: Matthew Edney)

Symposium “Mapping Empires: Colonial Cartographies of Land and Sea”
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



Surveying Empires—Colonial Cartography and Landscapes of the Great Trigonometrical Survey of India

Keith D Lilley

Queen’s University Belfast
k.lilley@qub.ac.uk

ABSTRACT

With the approaching bicentenary marking when George Everest led the Great Trigonometrical Survey (GTS) of India, the time is right to raise greater awareness and appreciation of the cultural legacies of the GTS, including its surviving monuments and infrastructure. An ambitious colonial project, to accurately map and measure India geodetically through advanced trigonometrical survey techniques, the GTS involved British, Irish and Indian surveyors. Now, two hundred years on, a project funded by the British Academy called “Surveying Empires” follows in Everest’s footsteps in a collaboration between UK and Indian scholars using 21st-century digital-survey methods to study the landscapes of the GTS, including those survey towers—still standing yet neglected and under threat—that formed part of the trigonometrical series of the GTS in eastern India. Using this new research, the paper will examine examples of India’s earliest GTS survey towers, situated in West Bengal, and explore India’s colonial surveying through its landscape legacies to reveal how the GTS surveyors shaped local landscapes as a prelude to their geodetic surveys. Two particular themes are addressed, one focusing on the landscape evidence—or archaeologies—of survey, which provides insights into the past practices of the GTS surveyors on the ground, and a second focusing on the contemporary accounts by the GTS that reveal how surveying teams operated locally, overcoming challenging landscapes in seeking to survey them. Both are rather neglected topics, for although the GTS as an imperial / colonial organisation has been well studied by historians of cartography, through the colonial archive, the field evidence for the GTS—and its material culture—has yet to receive systematic study. The “Surveying Empires” project has sought to address this, and in so doing has opened up important questions on the *materiality of cartography*, and the significance of the spaces and places—the *landscapes of survey*—that underpinned the Great Trigonometrical Survey of India.

BIOGRAPHICAL NOTE

Keith Lilley is Professor Historical Geography at Queen’s University Belfast (UK). His expertise lies in exploring connections between landscape and mapping, using cross-disciplinary approaches drawn from geography, history, architecture and archaeology. His publications include “Mapping Medieval Geographies” (2014, CUP) and he has led innovative research projects employing digital technologies to analyse and interpret historic maps, including the Gough Map of Great Britain, resulting in web-mapping resources (eg surveyingempires.org; goughmap.org). His latest funded research projects are on the Renaissance polymath and cartographer, Humphrey Llwyd; on archaeologies of geodetic surveying in Britain, Ireland and India; and on maps and landscapes of WW1.



1:1 Million scale mapping by Survey of India and developments in relief representation

David Forrest, PhD, FBCart.S

School of Geographical & Earth Sciences
University of Glasgow
Glasgow G12 8QQ
david.forrest@glasgow.ac.uk

ABSTRACT

By the end of the 19th Century the Survey of India was making good progress towards completing the detailed survey of the country. One recommendation of a major review in 1904 was to replace Provincial maps at 16 inches to the mile with a new national map at 1:1M, known as the India and Adjacent Countries series. Clearly the consideration of this series pre-dates the 1904 review as a professional paper was published in 1903 proposing a suitable map projection for such a series. Seemingly unwilling to await agreement on international proposals for a global series at this scale, the International Map of the World, the SoI set about developing designs for this new series. A significant part of this was investigation of relief depiction methods. Earlier mapping around this scale had mainly used hachures, but serious experiments were carried out into the design and production issues of using contours, hypsometric layers and hill shading. Although the first maps in the series were published in 1906, experimentation with hypsometric layers and their colouring continued at least until 1914.

At the 2nd conference on the IMW in 1913 an example of the I&AC series was displayed. According to Major Tandy of the SoI, this was highly influential in the adoption of hypsometric layers for the IMW and the selection of colours for the layers.

By 1914 the SoI had published 1 sheet conforming to the agreed IMW specifications and more followed in the next few years. Initially these were considered to be a special series, to be published alongside the India and Adjacent Countries Series. This was not necessarily simple, as despite being the same scale, the two series were on different projections, had different sheet layout and varied significantly in specification. Publication of new sheets and new editions of both series continued well into the 1920s. A SoI map catalogue of 1950 includes an index map for the I&AC series, but notes that it is now obsolete and replaced by the IMW.

Based on original SoI reports and map extracts, the paper will detail the development of the I&AC series and the early editions of the IMW, with a particular focus on the development of relief representation techniques.

BIOGRAPHICAL NOTE

David Forrest is a lecturer in cartography at the University of Glasgow and programme director for the MSc in Geoinformation Technology and Cartography. He is a Vice-President of the International Cartographic Association, Chair of the UK Cartography Committee and a past-president of the British Cartographic Society. He has interests in map design and map use research, particularly focusing on topographic, tourist and public transport mapping.



War Cartography in the Survey of India: 1920-1946

OYNDRILA SARKAR

Presidency University, Department of History, Kolkata
Oyndrila.his@presiuniv.ac.in

ABSTRACT

The British Empire achieved its cartographical reach during the interwar period. It was therefore forced to deal with unprecedented strains, as its already bulging territories led to an increased need for securing borders. Along with anxieties about the Afghan border on the North-Western Frontier of India, there were growing tensions in the virtually unmapped colonies in Africa, Mesopotamia, East Persia and Macedonia. A critical knowledge of the history, aims and the organization of the Survey of India, reduced to ‘The Department’, in 1920s, is crucial for understanding its complex role in the years both preceding the Great War, and during the inter-war years. The SOI was a department under the control of, but not *of*, the Government of India, and was never under direct control of the War Department.

The outbreak of the war in 1914 left the survey department short-handed in officers and its internal survey programmes, most surveyors being sent to non-survey or military duty. The immediate need for comprehensive survey and mapping work was felt. With the Depression and retrenchment in full swing, the budgets for making maps and its maintenance were scrapped. Mapping policy changed drastically under such conditions, moving from the desire to have artistic excellence with refined signs, symbols, colour and typography on large-scale maps, to correct, minimalistic up-to-date small scale maps. This enabled reissuing them easily, serving the immediate purpose of knowledge and circulation. The department itself was depleted, rushed and overburdened; most of their survey information could not be published for security reasons. With no routine reports of the SOI’s activities as a result of the war, mapping policy directed an increase in the expenditure on reproduction, correction and revision of maps at the cost of new survey, drawing, drafting and fieldwork.

With exemplary sources such as the *Departmental Papers*, and *Records* of the Survey of India, I would like to show how the Empire’s mapping policy laid the foundations of urban and thematic mapping in India, as well as its modern boundaries. Against the war, it became imperative for the Empire to follow a constructive policy of balancing and achieving what was technically desirable, against what was economically viable. Essential geodetic foundations of topographical survey work had been laid in the past Great Trigonometrical Survey, but any future surveys would have to be dealt with differently, keeping in mind the background of these changes in conditions, needs and methods of survey.

BIOGRAPHICAL NOTE

Oyndrila Sarkar is a doctoral student at the Cluster of Excellence: Asia and Europe in a Global Context, University of Heidelberg. Her project explores the antecedents of the construction of the Indian state through a study of the Great Trigonometrical Survey of India (GTSI), with special focus on the praxis and the working relationships the GTSI entailed, and its tools of surveying. She has graduated from Presidency College, Kolkata and has an MPhil from the Centre for Historical Studies, Jawaharlal Nehru University, New Delhi. She currently teaches History at Presidency University, Kolkata

Session 6

Mapmakers

(Chair: Nick Millea)



“Dead on arrival” The unused cartographic legacy of Carl Friedrich Reimer

Jeroen Bos

Leiden University Libraries
j.bos@library.leidenuniv.nl

ABSTRACT

The National Archives of the Netherlands houses the largest part of the institutional archives of the former Dutch East India Company (VOC). Measuring around 1,2 kilometers in total, it also preserves the most hand drawn maps, plans and topographical views of the Dutch overseas settlements. Among the most neglected part of the cartographic legacy of the VOC are the military maps made after 1750. This is traditionally considered the period in which the Company lost ground to the European competition.

After the Fourth Anglo-Dutch War (1780-1784), which ended disastrously for the Dutch, the need to reform was strongly felt. Strong leadership within the Company was absent. Thus, the board of directors (*Heren XVII*) went to the highest political entity in the Republic for help: the States-General. A military commission was formed that would sail for almost four years in African and Asian waters. Its mandate: to report on the (military) state of affairs in the East, survey the settlements and make plans for improvement. The resulting paperwork is overwhelming.

As its main military engineer, responsible for surveying the settlements and drawing the plans, the Prussian-born Carl Friedrich Reimer was attracted. He had already been in VOC service for two decades before he was given this important task, and became a confidant of Governor-General Arnold Willem Alting. The Governor-General was very skeptical towards the activities of the military commission, which operated fully outside the traditional Company chain of command. By maneuvering Reimer into the commission, Alting had eyes and ears in this commission. Next to observing, surveying, drawing plans and writing recommendations, Reimer would also inform Alting about the journey.

Every major Dutch settlement from South-Africa to the Moluccas was visited by the military commission, forming a unique view on the (military) state of affairs of the Dutch presence in Asia around 1790. With the recommendations, accompanied by the excellent military maps by Reimer, the Dutch could make a fresh start in its imperial ambitions. However, when the commission fleet returned to the Republic in 1793 and all the reports and maps were transferred, the political constellation no longer had an eye for the overseas troubles of the VOC. The young and revolutionary French Republic just declared war. The cartographic legacy of C.F. Reimer was “dead on arrival”.

In this contribution I will bring the long-forgotten military commission in the spotlight, with military engineer Carl Friedrich Reimer as central figure in the narrative.

BIOGRAPHICAL NOTE

Jeroen Bos (1978) is library staff member at Leiden University Libraries. He is co-author of volume VI in the *Comprehensive Atlas of the Dutch United East India*. In 2015 he gave a poster session about C.F. Reimer during the 26th *International Conference on the History of Cartography* [ICHC] that took place at Antwerp and presented a paper about military engineer Coenraad Pieter Keller during the international symposium *Mapping Asia – Cartographic Encounters between East and West* in Leiden, September 2017. The resulting research paper has been accepted for publication in the ICA Symposium Proceedings.



David Livingstone and the Mapping of Africa

Elri Liebenberg

University of South Africa
elri@worldonline.co.za

ABSTRACT

Although Livingstone was not a typical Victorian apostle of empire, he was undeniably an imperialist, both consciously and otherwise. Nor were his activities in directing British attention to Africa limited to missions. He wanted Africa to be opened up for commerce and colonisation, and in 1859 wrote to Sir Roderick Murchison “I become every day more convinced that we must have an English colony in the cotton-producing districts of Africa”. To achieve this Africa had to be explored, Christianity spread and the slave trade eradicated, ideals Livingstone doggedly pursued whilst exploring and mapping large parts of the interior of the continent.

Livingstone was not a cartographer but, to him, his maps were of prime importance. He had no formal schooling regarding the rudiments of geography and never took any formal courses in surveying or mapping. He was, however, a keen observer of the natural environment and possessed an innate ability to meticulously record what he observed. His maps which he kept forwarding, initially to the London Missionary Society and later to the Royal Geographical Society, were exemplary of what he had achieved in Africa: opening up the continent for European settlement by plotting the geographical coordinates of the routes he had followed with exceptional accuracy. Whilst living at a time when the possibility to effortlessly make an exact copy of a map was non-existent, Livingstone managed to make copies of his maps himself with the result that various maps exist of the very same area, all made by him.

Although much has been written about Livingstone, little has been said about his maps. This paper attempts to elucidate this rather unknown facet of his legacy by paying attention, firstly, to the instruments, methods and techniques he used to collect his data and to draw and make copies of his maps and, secondly, to the quality of his maps as such. Attention will be given to his life-long relationship with HM Astronomer at the Cape, Sir Thomas Maclear, to whom he regularly sent his maps to be checked, as well his occasional tempestuous relationship with the official cartographer of the Royal Geographical Society, John Arrowsmith. To conclude, mention will also be made of the ongoing current Livingstone Online Project, the aim of which is to make available online all the letters, journals, diaries, books, notebooks and known miscellaneous items which had originated from David Livingstone’s pen.

BIOGRAPHICAL NOTE

Elri Liebenberg was Professor and Head of the Department of Geography of the University of South Africa. From 1999 to 2003 she was a Vice-president of the ICA, and from 2007 until 2015 she served as Chairperson of the ICA Commission on the History of Cartography.



Head Hunters, Pirates and Cannibals - Surveying in the 1960s.

Roy Wood

roy.wood58@btinternet.com

Although many maps and charts can now be constructed accurately on geocoded pixels, maps in the colonial period, especially at topographic scales, needed a framework of control on the ground. This paper will build on experience in the immediate post-colonial period with the Directorate of Overseas Surveys in Sierra Leone and Sabah and surveying on active service in Sarawak during the “Confrontation” war with Indonesia. In Sarawak, errors uncovered on existing maps such as an area of 100 square miles on the wrong side of an international border, a shear of 5 miles in map detail across the border and mountains shown 2,000 feet too low were crucial for infantry and helicopter operations.

The paper will summarise the technical methods used at the time to control the air photography used to produce plots for the cartographers. These methods depended on theodolites and an increasing use of early electronic distance measurement systems. Reducing angle and distance measurements to coordinates required 7 figure log and trigonometrical tables and hand cranked calculating machines. The paper will also describe the logistic challenges involved in surveys in remote areas which were usually far more demanding than the observation and computing. Access to mountain top trig points varied from strings of porters with head loads in Sierra Leone to winching into the tree tops from helicopters in Sarawak. Experiences including encounters with head hunters, pirates and cannibals. The maps produced from this work are still the basis for national series but the adventures have been lost to GPS.

BIOGRAPHICAL NOTE

Major General Roy Wood MA MSc FRICS FRGS. Field surveyor in Sarawak, Sabah and Sierra Leone in the 1960s and, after military mapping and charting appointments in UK, Germany and the USA, retired in 1993 as Director General of Military Survey. Previously an Hon Sec and Council member of the Royal Geographical Society, Chairman of the Association for Geographic Information, President of the Photogrammetric Society and Trustee of the Mount Everest Foundation. Currently a Trustee (and past Chairman) of the disaster relief charity MapAction and President of the Defence Surveyors Association.

Poster Session 2

(Chair: Soetkin Vervust)



Mapping the Persian Gulf and the problem of the Ambiguous Position: An Imperial Perspective

Hatem Alshaikh-Mubarak

Phd Candidate in Modern History, University of St Andrews, 2019
hamam@st-andrews.ac.uk

ABSTRACT

This paper examines the perception of the Persian Gulf as a mark in the Arab-Persian geographic dichotomy. It tries to show that the British Indians during the nineteenth century initiated an enterprise to explore the Gulf surroundings that accompanied their endeavour to maintain hegemony and order in that sphere, and utilise it as a frontier for the British Indian empire, and within that enterprise they articulated an imperial perspective towards that area that differed from the classic perceptions of the previous geographic traditions.

In the Arabic medieval tradition, and also among European travellers and cartographers of the seventeenth and eighteenth centuries, the Gulf was dominantly imagined as a border dividing Arab and Persian lands. This view, reflects an inland centric imagination that persisted in the geographic and historical thought, in which the maritime is often marginalised in favour of the land in the way in which we understand and categorise space. In those past few centuries, the loose political boundaries that coincided with fluid demography and hybrid culture in the two sides of the Gulf did not correlate with that dominant view of the sea as a rigid boundary between two geo-cultural entities.

The paper examines how British Indians came up with a view that is different from the one previously dominant. It draws on literature of spatial and cartographic knowledge that approaches space and place are approached not only as a static entity determined by physical human or natural- realities, but also as an idea that formulates and evolves by visualising in scientific cartography, and they are enhanced with cultural and historical values in texts of description and historical narratives. Hence, the paper tries to trace the idea of the *Persian Gulf* as the British articulate it in various texts and maps of diplomats, travellers, and navy officers and surveyors.

The paper argues that the idea of the Gulf evolved from a body of water situated as a natural border, to a centre that ties and homogenises its surroundings in one distinct region. However, the Gulf region was still perceived in a binary frame in which the opposite sides are separated in accordance with their respective lands: Arab and Persian. Thus, the sea is situated in an ambiguous position: a space that links and divides simultaneously. The demographic fluidity and cultural hybridity that persisted during the eighteenth and nineteenth century informed a new perspective for imagining that sphere, but meanwhile it did not totally eliminate the inland centric preoccupations of the sea as a border between Persia and Arabia.

BIOGRAPHICAL NOTE

My academic background is in Arabic Language, literary and cultural studies, with degrees from Saudi and Jordan, and lately I obtained a master degree from SOAS in Comparative Literature. I worked as teaching assistant in Saudi, and as assistant editor of a magazine issued by the Saudi Cultural Bureau in London. I started my Phd in in Spatial History at St Andrews. My current research interests include Imperialism in the Middle East, geographic knowledge, and more widely transnational and global history. I presented papers in EUI in Florence, Exeter University, and the Royal Geographic Society.

Symposium “Mapping Empires: Colonial Cartographies of Land and Sea”
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



A Tale of Two Brazzas: Intertwining (Post-)Colonial Namescapes

Liora Bigon and Michel Ben Arrous

Holon Institute of Technology (HIT) and the Truman Research Institute for the Advancement of Peace;
Bar Ilan University and Centre Culturel Yavné Bordeaux

liorab@hit.ac.il; benarrous@arc.sn

ABSTRACT

After years of extensive research on place names in Africa and the meanings of place itself in postcolonial contexts, we realized that the closest affiliation to a common street name in both our cities — Holon, a suburban town bordering Tel Aviv, and Bordeaux in south-western France — was related to the Congo. There exists a short Brazzaville Street in Holon and there is a long Quay of Brazza in Bordeaux. The latter commemorates the Italo-French explorer, Pierre Savorgnan de Brazza (1852–1905), whose name was given to the capital of Congo and thus, by extension, to Brazzaville Street in Holon. This study¹ takes an interactive approach to understanding the present-day complexities of the two Brazza-related toponyms in the light of the different historical contexts in the two loci of study. It illustrates the importance of ‘entangled histories.’ ‘Entangled histories’ (Randeria 2009), sometimes called in transnational studies ‘connected histories’ (Subrahmanyam 1997) or ‘histoire croisée’ (Werner and Zimmermann 2006) — a useful approach in our case as it recognizes historical and contemporary entanglements between variegated geographical spheres in a flexible way, at different points of time in different societies. This relational (rather than comparative) and process-oriented approach also questions neat perceptual or practical demarcations by recognizing the varied flows of power, ambiguities, combinations, transformations and tensions, irrespective of geographical origins.

It has been clearly acknowledged in recent toponymic studies that, beyond the primary purpose of place names as an administrative act designated to facilitate spatial orientation, the symbolic and socio-political aspects of their production must be also be taken into account. Yet these studies are over-concerned with modern political regimes, nationalism, and ideology — and refer almost exclusively to inter- Western/European contexts (e.g., Jones and Merriman 2009; Light, Nicolae and Suditu 2002; Milo 1997; Nash 1999; Raento and Watson 2000; Rose-Redwood 2008). Within these contexts, amongst the issues that have received the most attention are “nationalism, revolutions and wars of independence” (Foote and Azaryahu 2007, 125–126). The present study not only interconnects between the two different site-related contexts, histories, time spans and socio-politics of Holon and Bordeaux; it also mediates between geographies beyond Europe, by interconnecting France, Israel and the Congo. This aspect of spatial intertwining contributes to the de-Eurocentrization of recent place names studies, and breaks the site-related essentialism of each toponym by “paying particular attention to the consequences of intercrossing” (Werner and Zimmermann 2006, 42). In addition, a variety of primary and secondary materials is employed, including visual and archival sources from multilateral channels, and fieldwork.

¹. Published under this title in *Names* (American Name Society, March 2018).

BIOGRAPHICAL NOTE

Liora Bigon (PhD in Architecture, the University of Manchester) is a Senior Lecturer at Holon Institute of Technology (HIT) and a Research Fellow at the Truman Institute for the Advancement of Peace at the Hebrew University of Jerusalem. Interested in toponymy and colonial urban history in sub-Saharan Africa, she has published numerous articles, encyclopedic entries, and (edited) books on these topics, e.g., *Gridded Worlds* (Springer 2018, co-edited); *Place Names in Africa* (Springer 2016); *Garden Cities and Colonial Planning* (Manchester University Press, 2014, co-edited).

Michel Ben Arrous (Architecture, Ecole Polytechnique Fédérale de Lausanne, EPFL; PhD in Geography, Université de Rouen) is a research fellow at the Department of History, Bar Ilan University. He has lectured and published extensively on the epistemology of territory, media and conflict, and the history of geographic ideas and fantasies. A former journalist in Southern and West Africa, he also spent many years as research coordinator with CODESRIA (Council for the development of social science research in Africa) in Dakar, Senegal. His current research interests focus on African and Jewish spatial practices, and the comparative history of geographic representations.



“I beg you to be relieved from this duty”: trigonometrical trials and tribulations in late-18th-century India.

Mark Davies

mark.oxford1@btinternet.com

ABSTRACT

The men who mapped the British Empire were required to demonstrate attributes which were not simply cartographical. This versatility is well illustrated in Thomas Wood (c.1765–1832), who notably surveyed long sections of three important rivers in northern India and Burma between 1793 and 1802. In Wood’s case, the topographical, climatic, and political challenges were exacerbated by the failure of the central administration to provide him with logistical and material support. It is this aspect which warrants examination: the frustrations which caused a talented and resourceful individual to abandon cartography in order to utilise his skills in a more supportive environment.

Whilst undertaking his topographical surveys as a junior officer of the Bengal Army, Wood had to demonstrate the acumen of a soldier, a diplomat, an administrator, and a logistician, under challenging circumstances. His difficulties are revealed in his correspondence to the Surveyor General. While completing the Assam section of the Brahmaputra River between October 1793 and April 1794, for instance, his comment that “instead of surveying [we] found ourselves under the necessity of fighting for several days” was followed by two pitched battles in a single day.

Wood went on to survey the Irrawaddy River in Burma in 1795/6 (with important later military benefits); and more than 500 miles of the Ganges (from Hardwar to Allahabad) between 1800 and 1802. Here he had his allowances refused because he had failed to make copies of his field books, even though simply producing the originals – “at least 128 pages of foolscap paper, written close and small” – was achieved only because “for 5 months I was labouring from morning till night”.

In May 1802 Wood wrote to the Surveyor General to insist that he should no longer be referred to as a Surveyor because “I would rather be on my half-batta than on survey allowances and suffer in the manner I have done for these last two years and a half past”. He nonetheless dutifully completed the survey, despite having “suffered not a little in my health”, but wrote in August 1802 to “beg to be relieved from this duty”.

Wood switched thereafter to the Bengal Engineers, rising to the rank of Colonel in 1830, having earlier had temporary charge of the Surveyor General’s Calcutta office, located in Wood Street, which is named after him.

BIOGRAPHICAL NOTE

I am an Oxford local historian, guide, public speaker and author. My specialisms include Oxford’s waterways, its castle, Lewis Carroll’s “Alice”, and early hot-air ballooning. Within my Geography BSc (1984), cartography was a principal module. Thomas Wood is my four-times great grandfather. A contemporary East India Company ancestor, Matthew Leslie, inspired the “Cartographic Conversation” that I hosted at the Bodleian Library’s 25th anniversary of the Oxford Seminars in Cartography in 2017. Leslie’s ownership of a large farm near Oxford enabled discussion of two unusual 17th/18th-century local maps and several from India, where a Jharkhand township retains his name: Leslieganj.



Mapping, ignorance, and power in Northern Rhodesia: an agnotological approach to colonial cartography

Elizabeth Haines

University of Bristol / Science Museum, London
elizabeth.haines.2011@live.rhul.ac.uk

ABSTRACT

The term ‘agnotology’ was first proposed by Robert Proctor and Londa Schiebinger in 2008 as “the study of the cultural production of ignorance”. For Proctor and Schiebinger ignorance can be conceptualized as a ‘native state’ (before knowledge), or as a ‘lost realm’ (something aimed for but not always achievable). More importantly for this paper, they propose that ignorance can, in certain cases, be seen to be a strategic ploy.

Historically, the lack of mapping of British African territories in the first half of the twentieth century has been broadly attributed to limitations on the finances available to individual colonial governments. However, in this paper, taking ‘knowledge’ to be the production and use of topographic maps, and ‘ignorance’ to be the lack of them, I argue that colonial ignorance about territory could be considered a strategic ploy in a number of ways. To explore this perspective I take two particular instances of the *disuses* of colonial cartography in early twentieth-century Northern Rhodesia: (i) the exploitation of the profitable Northern Rhodesian teak forests (ii) the quotidian movement of colonial officers around their rural districts.

In the first case study, I show that it was expedient, both economically and politically, for logging activity *not* to be legible at colonial and imperial centres. This culturally-produced ignorance can be attributed to tensions in the relationship between the colonial government and the client African kingdom that held the rights to the teak forests. The absence of governmental topography of the teak region can be attributed to a “tacit logic” (McGoey 2007, 217) that ran contrary to the ostensible colonial aims of rational resource management.

There were also political reasons to eschew maps within local government. Even at Zambian independence in 1964, colonial officials in rural districts relied on local African subjects to provide navigation on district ‘tours’, and to assist in finding previous boundary and survey markers. I argue that the district officers’ demands for knowledge from local populations were an effective substitute for detailed topographic mapping. Moreover the act of making these demands permitted the demonstration and re-demonstration of colonial authority.

Through an agnotological approach these case studies suggest that commonplace understandings of the role of maps in establishing dominion over colonized territories might be oversimplified. Close examination of the practice of governance in Northern Rhodesia suggests that power over territory was not necessarily best achieved by codifying knowledge of that territory.

BIOGRAPHICAL NOTE

Elizabeth Haines obtained her doctorate from Royal Holloway, University of London in 2016. She is currently working in research positions at the University of Bristol and the Science Museum, London. In addition to writing a book based on her doctoral research, she is developing a new research project: a long history of the use of maps as legal evidence in Southern Africa.



Australasian Colonial Surveying Controversy: Light’s Trigonometrical Survey versus Dawson’s Running Survey

Kelly Henderson

Independent Researcher
khenderson002@gmail.com

ABSTRACT

The British Province of South Australia was the first established on a system proposed by English political economist Edward Gibbon Wakefield. Founded on advanced social and scientific principles with survey required prior to settlement, South Australia provided an exemplar for systematic colonization of New Zealand and reform of British colonial policy and practice.

Early topographical mapping of South Australia benefited from scientific legacies: accurate determination of longitude, France’s trigonometrical survey and of the Great Arc of the Meridian in India. Maritime exploration was required to locate a mercantile harbour not discovered by maritime explorations of Matthew Flinders nor Nicolas Baudin, on the east coast of Gulf St Vincent. Inland exploration was encouraged by London’s Royal Geographical Society, and founders heeded philosopher Jeremy Bentham’s earlier advocacy for a comprehensive cadastre similar to France’s *Charte Trigonometrique*.

The Colonization Commissioners for South Australia selected Malayan-born Lieutenant-Colonel William Light as first Surveyor-General and Leader of their ‘First Expedition’ to South Australia, confident of his being pre-eminently qualified to effect the necessary surveys by both sea and land. The skills Light gained in the British Royal Navy, and lessons learnt in assessing landscapes for strategic movement and accommodation of infantry, cavalry and artillery whilst serving as a cavalry and reconnaissance officer in Wellington’s Peninsular War Army are most evident in Light’s South Australian masterpiece, his coordinated cadastre of the District of Adelaide.

Several attributed the practical success of the South Australian experiment to Surveyor-General Colonel William Light and his survey team. However, Light’s selection of the Adelaide Plains as the site for the capital and seat of government was fiercely contested, and his survey method subjected to challenge from England by those with no practical experience of South Australia. Light was beset by stubborn opposition from Governor Hindmarsh’s faction, betrayal by the Survey Department’s own inept Deputy Surveyor, GS Kingston, and ill-informed directions from London for abandonment of the trigonometrical survey and replacement with Captain Dawson’s running survey.

In 1839 Captain Edward Charles Frome R.E. continued Light’s survey and later published *Colonial surveying and Outline of the method of conducting a trigonometrical survey*. Frome’s criticism of Dawson’s proposal finally provided professional vindication of Light’s methodology.

This paper examines the colonial surveying controversy settled in South Australia by popular demand with rejection of the running survey that could have ruined the colony and continuation of Light’s survey – a unique colonial cartographic heritage.

BIOGRAPHICAL NOTE

Kelly Henderson is a life member and former councillor (2002-2009) of the Royal Geographical Society of South Australia (RGSSA); an associate member of Australia ICOMOS; a past president (2010-2012) of the Adelaide Park Lands Preservation Association; former chairperson of the RGSSA Geographical Heritage Committee (2004-2009), and Editor (2012-2014) of the Adelaide *Park Lands News*.

Symposium “Mapping Empires: Colonial Cartographies of Land and Sea”
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



THE CHARACTERISTICS OF THE OTTOMAN-AUSTRIA BORDERS IN THE XVIII. CENTURY

Ugur Kurtaran

ABSTRACT

It is a century in which important political, military and diplomatic changes took place in the 18th century Ottoman history. At the beginning of the century, the first landslides of Ottoman history were experienced with the Carlowitz Treaty. This caused the Ottoman borders in Europe to narrow and change. As a matter of fact, border and border relations are very important in the relations between the states. Because of this importance, the identification of the Ottoman-Austrian borders and the formation of the related border maps of the Carlowitz Treaty and its subsequent changes constituted one of the main subjects of 18th century Ottoman-Austrian relations. In this study, XVIII. century Ottoman-Austrian relations in relation to political and military developments in the border changes and their reflection on the map focused on. In the framework of this research, the contents and characteristics of the Ottoman-Austrian border maps changed after 1718 Pasarowitz, 1739 Belgrade and lastly 1791 Zıřtovi Treaties.

Key Words: Ottoman, Austria, Border, Map, Diplomacy

Session 7

The Far East - 2

(Chair: Mirela Altic)



Pacific Projections: The contentious cartography of the South Seas in the 1740s and 1750s

Dr Katherine Parker

Hakluyt Society
kap@raremaps.com

ABSTRACT

In 1738, when approached about a new voyage to search for the Northwest Passage, First Lord of the Admiralty Sir Charles Wager said ‘a Spirit of that Kind seems to have been asleep for many Years.’² The 1740-44 Anson circumnavigation, and specifically the carefully-curated official account, went a long way toward reviving such a spirit across Europe, although interest did not translate into immediate voyages due to inter-imperial politics and company restrictions. The Anson expedition was the most prominent, but far from the only, event that spurred discussion about the South Seas and Pacific exploration. The 1740s and 1750s witnessed a reassessment of Pacific geographic knowledge by mapmakers, editors, and intellectuals across Europe, as well as officials and naval officers.

This paper will focus on discussions about Pacific geography by mapmakers and savants, showing how the Pacific served as a physical space whose image was hotly contested, but also how it served as an intellectual arena in which to play out personal and political disagreements. By arguing over what the space looked like and who could cross it, Europeans appropriated the ocean into their geopolitical sphere even as fewer European ships sailed there as compared to the turn of the eighteenth century.

The paper will present three cartographic case studies. They feature maps in books, maps used in diplomatic correspondence, and sheet maps as used by scholarly societies to exemplify the diversity of materials involved in perceiving Pacific space. They also feature actors from Britain, Spain, France, and Russia, underlining the trans-imperial competitive collaboration that underwrote cartography during the mid-eighteenth century. When European overseas empires were again able to send ships into Pacific waters in the 1760s, they would carry with them a quarter century of contentious geographic debate as cargo.

BIOGRAPHICAL NOTE

Katherine Parker received her PhD in History from the University of Pittsburgh in 2016. She specializes in the history of Pacific exploration, history of the book, and history of cartography in the long eighteenth century. She currently works as the Research Officer at Barry Lawrence Ruderman Antique Maps and serves as the Administrative Editor for the Hakluyt Society.

² Admiral Sir Charles Wager to Arthur Dobbs, March 4, 1737. Letter is included in William Barr and Glyndwr Williams, eds., *Voyages in Search of a Northwest Passage 1741-1747. Volume I The Voyage of Christopher Middleton 1741-1742* (London: Hakluyt Society, 1994), section I, doc. 14, p. 50.

Symposium “Mapping Empires: Colonial Cartographies of Land and Sea”
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



Multi-national military and naval manuscript mapping compiled and collected for the British ‘Interregnum’ in Dutch East Indies (ca 1811-15)

Francis Herbert

Curator of Maps (retired), Royal Geographical Society with IBG
Francis443herbert@btinternet.com

ABSTRACT

Preparatory to the British Army and Navy from India (including the Honourable East India Company’s military and the British Admiralty’s naval forces) sailing for Java in 1811, Dutch, British and French surveys and copies thereof were collected and compiled. This was for invasion to remove French (Napoleonic) colonial occupation of former VOC (Verenigde Oost-Indische Compagnie = Dutch East India Company) possessions, and to ensure continued neutrality of the Dutch. The period became known as the ‘Interregnum’ (1811-16). Lord Minto (from Scotland) was appointed as overall British military governor, Lieut.-Gen. S. Auchmuty (from Ireland) as chief army commander, Col. R.R. Gillespie as a particularly successful commander, Major W. Thorn (from Germany) as eventual Deputy Quarter-Master General responsible for surveying and map-making; and T. Stamford Raffles (from England) as the civilian governor over Java and Sumatra especially. Several manuscript items, hitherto never apparently consulted or connected by cartographic and/or military historians, currently deposited, for example, in The Netherlands (Nationaal Archief) and the United Kingdom (National Library of Scotland; Royal Geographical Society-IBG) will be publicized. Examples of the holdings of the RGS (received in the 1860s from another army officer active during the ‘Interregnum’) will be described and shown – notably because they seem to have been overlooked by the 7-volume ‘Atlas Maior’ publication project (2005-10) coverage of the VOC. This contribution is offered in order to encourage future researchers to evaluate the manuscript materials of the late 18th and early 19th centuries that cover present Indonesia, India and Nepal.

BIOGRAPHICAL NOTE

See ICA Commission on History of Cartography Conference (Dubrovnik, 2016)’s published proceedings (Springer, 2017/2018): “‘Back to the Drawing Board’: map-making and the Royal Geographical Society (1830-1990)”, pp.147-171 (172); to be updated, e.g., with three *History of Cartography Vol. 6* (University of Chicago Pr.) entries once completed and confirmed for publication.



The exploration and survey of the outlying islands of the Netherlands East Indies

Ferjan Ormeling

University of Amsterdam
f.j.ormeling@uva.nl

ABSTRACT

Even though the maps produced from surveys at the scale 1:50 000 of Western Sumatra were used as model for the systematic mapping of Java (the so-called residency map), any surveys beyond Java were the offshoot of small-scale military actions. The same was valid for scientific expeditions, as no overall plan can be discerned in them. The start of the exploitation of minerals in the 1850s, and the gradual establishment of a network of government administrators in the outer islands made the establishment more conducive for systematic exploration and mapping, but it took until the 1880s before this started – by that time the mapping brigades of the Topographic Survey in Batavia had finished their work on Java, and the triangulation of Western Sumatra was started up, as well as the river-borne triangulation and mapping of Western Borneo, although a bit half-heartedly, as parliament in the Netherlands again and again tried to restrict these operations in order to economize.

These restrictions were lifted when Van Heutz, who had commanded the Dutch troops in the Aceh war, became Governor-General. His vision of the colony as a unitary state, not just Java and a couple of vassal sultanates, meant that the Dutch presence (*Pax Neerlandica*) and administration was imposed throughout the archipelago. And as maps formed the basis for good administration, funding of the Survey was put on a more secure basis. Southern and Eastern Sumatra were tackled, as well as southern Borneo and the systematic mapping of Celebes was started up as well. A regular army exploration programme for New Guinea was set up, and by the 1920s most of that island no longer was a white patch on the map.

This paper will link the various changes in government policy to the activities and resulting map series produced of the outer islands by the Topographic Survey in Batavia from the 1880s until 1950 when the Survey was transferred to the independent Indonesian authorities.

BIOGRAPHICAL NOTE

Ferjan Ormeling held the chair of cartography at Utrecht University 1985-2010, and now is a member of the Explokart research group at Amsterdam University. His research focuses on atlas cartography, toponymy and the history of cartography of Indonesia, either separately or in combination. He has contributed to the national atlases of the Netherlands and to the Comprehensive Atlas of the Dutch East India Company. He is currently writing a monograph on the mapping of the Indonesian archipelago.



Putting America's first Empire on the map. The U.S. Geological Survey and the Philippine Islands (1901-1946)

Eric H. Losang

Leibniz-Institute for Regional Geography, Leipzig
e_losang@ifl-leipzig.de

ABSTRACT

When in December 1884 John W. Powell, second director of the U.S. Geological Survey (USGS), addressed the U.S. Congress seeking authorization to begin systematic topographic mapping of the United States, Alaska had just become an official district of the United States.

Thus expanding the territory to the most westerly point of the continent, the Westward Expansion (although it officially ended 1912 when Arizona was admitted to the Union) came to an end causing the following contiguous mapping of the territory as the final act of nation-building.

Although the Westward Expansion is often described as a form of colonisation, it took until America's annexation of Hawaii in 1898 and the Spanish-American War one year later, that the United States became a colonial power.

Cartographically this was undermined by the USGS, publishing the topographic Atlas of the Philippine Islands in 1899. As Matthew Edney defined, there is a difference between imperial cartography (maps used to create an image of the empire as a legitimate entity and to articulate a claim on territory) and colonial cartography (maps of varying sorts used in immediate administration within a dependency), the former preceding the latter by defining territory claimed. The Atlas didn't take on one of the above-defined roles. Published by the USGS, it was based on a ready-to-print manuscript compiled under Spanish colonial power by Jesuit monks. It rather served two different purposes. Firstly, to inform the US-Government on what the United States may take on, starting a colonial adventure in East Asia and secondly to connect to the geographic knowledge on the Islands accumulated at the Manila Observatory, under the rule of Jesuit Father José Algué.

The US survey of the Islands only started in 1901 with a rather small-scale coastal survey and was extended when in 1908 President Taft decided over the US military presence on the Islands. The further development of world politics towards the First World War then underpinned the need for a further survey of the Islands, which then became institutionalised until the independence of Philippines in 1946.

The paper focusses the development, processes and framework of the US survey and USGS's topographic cartography of the islands to follow the hypothesis, that US colonial topographic mapping, although connecting cartography and the exercise of imperial power, was more pragmatic and considerably differ from colonial and imperial cartographies of European colonial powers, reflecting Americas struggle to define itself as such.

BIOGRAPHICAL NOTE

Eric Losang is researcher at the Leibniz-Institute for Regional Geography in Leipzig, Germany. Having been responsible for the editing of the digital maps in the National Atlas of Germany project, his focus moved from mapmaking to into the fields of critical cartography and map production frameworks and processes. His major fields of interest are the different aspects of atlas production and dissemination as well as their importance for the development of cartography throughout history. He is vice chair of the ICA Commission on Atlases.

Session 8

Middle East

(Chair: Wolfgang Crom)



The Re-emergence of Qatar on Maps and Charts of Arabia and the Persian Gulf

Christopher Alario

Qatar National Library
calario@qnl.qa

ABSTRACT

A history of the charting of the Persian Gulf reveals a stratigraphy of colonial/corporate cartographies. This history begins with the Portuguese in the early 16th century, then the Dutch after Linschoten in his revolutionary *Itinerario* published secret Portuguese charts of the region. This was followed by the French and the British who were to decisively dominate the region with the establishment of the British Persian Gulf Residency in 1763. And throughout this period to greater and lesser degrees there was the Ottoman presence. The focus of this paper is on revealing these layers with particular reference to how and why Qatar appears, then mysteriously disappears from charts and maps for 227 years during this time. In 1820, due to persistent problems with ‘piracy’ in the region, the Bombay Marine, the naval wing of the British East India Company, tasked Capt. George Brooks to survey the entire Persian Gulf with particular attention to the southern region which had been little mapped. The Brucks expedition ended in 1827 and produced a number of highly accurate hydrographic charts of the Persian Gulf with harbor plans and coastal views for a number of important towns in Qatar. A previously unrecorded commercial chart published by the hydrographer J.W. Norie, in 1823, while the Brucks expedition was still ongoing, shows this first emergence of the peninsula of Qatar with soundings on the western side of the peninsula whereas previously it had been thought Brucks approached the peninsula from the east. In 1860 Bombay Marine officers Constable and Stiffe produced the hydrographic charts that were to be used as the basis for UKHO charts of the region going forward. Examination of these charts suggests that as the peninsula of Qatar is surrounded by many dangerous shoals and reefs it effectively makes the peninsula appear as a continuous and flat coastline, especially to vessels with deep drafts. The efforts of the Qatar National Library to document this rich cartographic history through a number of projects will also be outlined.

BIOGRAPHICAL NOTE

Christopher Alario has been the map librarian for the Qatar National Library for 3 years and is the first in the position. He previously worked at the Map Division of the New York Public Library while acquiring his MLS. He has a previous master’s degree from Yale University in Islamic Studies.



Geographic services in French Syria and Lebanon: mapping an unfamiliar terrain from land and air.

Louis Le Douarin

European University Institute
Louis.LeDouarin@eui.eu

ABSTRACT

After the First World War, the end of the Ottoman Empire and the partition of the Middle East, the French Mandate was established in the Levant. Organising their power in the region, the French shaped new polities and established infrastructures and services in order to effectively administer and control the territory. If this imperial domination has attracted significant academic attention over the last twenty years, many of its dimensions (including cartography) have yet to be examined. The renewal of interest in the historiography of imperial cartography, which has recently extended to French-dominated territories (including Algeria, Chad or Indochina), has not yet expanded to the Levant, notwithstanding recent interest in the region, triggered by the violence of current events.

This paper examines the work of the official French cartographic services in the Mandate, interrogating the practices surveyors put in place on the ground by contextualising them within a larger institutional, imperial and scientific framework. More specifically, it focuses on the circulation of imperial cartographic practices inside the French Empire. As later additions to the empire, Syria and Lebanon certainly benefitted from experiences forged elsewhere in the world, especially in French North-Africa. This is initially visible in the organisation of the undertaking itself, with its functional, but also spatial, division of work. While regular brigades sent from Paris every summer only worked on the production of the 1:50 000 topographical maps of the coastal region, the local *Bureau topographique*, had to deal with the reconnaissance of the hostile eastern peripheries. First designed in Algeria, this distribution of tasks was directly transposed to the Levant, as early as 1919. However, Syria was not Algeria, and mandatory surveyors had to adapt existing practices to the diversity, hostility and size of the Levantine field. This readjustment will be illustrated by the ways in which surveyors used more modern means of transport, including trains, airplanes, and automobiles. Initiated in France during the war and implemented initially in Morocco, for example, the use of aerial photography for cartographic purposes saw a significant expansion in Syria, for reconnaissance of the borderlands. Overall, this paper will illustrate how these practices represented strategies of adaptation to obstacles and resistance encountered on the Levantine ground, which in turn helps to temper the idea of an omnipotent and performative imperial cartography.

BIOGRAPHICAL NOTE

Louis Le Douarin is a second year PhD researcher at the European University Institute. After graduating in International Affairs, with a focus on the Middle East (MA, SciencesPo Paris), he specialised in geography and history of geographical knowledge (MA, Paris I). His PhD project is conducted under the supervision of Prof. Stéphane Vandamme (EUI) and Prof. Florence Deprest (Paris I) and deals with the production of geographical knowledge about Syria and Lebanon, and their role in the production of territory, between the middle of the nineteenth century and the period of the French Mandate.

Closing Presentation

Symposium “Mapping Empires: Colonial Cartographies of Land and Sea”
Oxford, UK, 13-15 September 2018

ICA Commission on the History of Cartography
ICA Commission on Topographic Mapping
Bodleian Libraries of the University of Oxford



Red Star to Red Lion: The Soviet Military Mapping of Oxford

John Davies, Alexander J. Kent

AJK: Canterbury Christ Church University
JD: John@jomidav.com, AJK: alexander.kent@canterbury.ac.uk

ABSTRACT

As part of its global military mapping project, the Soviet Union produced maps of many parts of the world during the Cold War at up to seven scales, from 1:1,000,000 to 1:5,000. These range from more general maps designed for military planning and terrain evaluation to highly detailed street plans of towns and cities, including Oxford. The Soviet 1:10,000 plan of the city was compiled, designed and printed in secrecy within the Soviet Union in 1973 and reveals that a high level of information was collected about the location and function of buildings within the city, from the Morris Motors and Pressed Steel Fisher factories at Cowley to Oxford Prison and the Central Post Office in the city centre. Anomalies include the omission of Marston Ferry Road (which opened in 1971) and the inclusion of the two gas holders at St Ebbe's (which were demolished in 1968). Further afield, the depiction of RAF Upper Heyford on Soviet 1:50,000 topographic mapping includes details not shown on contemporaneous Ordnance Survey maps. With a particular focus on the Soviet mapping of Oxford and its vicinity, this paper therefore provides some new insights into the global mapping project and examines the achievements, methods and supposed purpose of this unprecedented cartographic exercise.

BIOGRAPHICAL NOTE

John Davies and Alexander J Kent are co-authors of 'The Red Atlas: How the Soviet Union Secretly Mapped the World'. John Davies is a life-long map collector and enthusiast. He is editor of *Sheetlines*, the Journal of The Charles Close Society for the Study of Ordnance Survey Maps. Alex Kent is Reader in Cartography and Geographical Information Science at Canterbury Christ Church University and Immediate Past President of the British Cartographic Society. He is also Editor of *The Cartographic Journal* and Chair of the International Cartographic Association (ICA) Commission on Topographic Mapping,

Cover image: John Henri Bastide, Part of 'A Prospect of that Part of the Land and Sea adjacent to ye Barrack to be Built in Glen Elg' (1720). Reproduced courtesy of the National Library of Scotland. MS1647 Z.03/07a.