

前殖民時期的臺灣地理知識：

日人材料的初探

Pre-Colonial Geographical Knowledge on Formosa: Preliminary Study based on Japanese Cited Materials*

葉爾建^a

Er-Jian Yeh

摘要

本文旨在探討前清時期西方人建立之臺灣環境知識的特性。雖然日人對臺灣島的認識多根源其自身進行的探險和調查，但統治初期的官員和知識分子並不因此忽略西人在條約港設立後(即 1860 年代開始)逐步建立的近代地理知識的重要性。

為說明以上論點，本研究針對地理或環境認識的面向，依序重建西人知識形成的網絡。文章主要包含三個部份，首先，本文指出天津條約簽訂後條約港的開放使歐美人士(尤其是不列顛人)較便利進入臺灣，並將本島介紹至近代地理知識的體系中；其次，文章聚焦在這些西方先驅者如何探索和表現臺灣的環境；最後，本文歸納出上述人物形塑出之環境知識的特性。

透過現存西文資料的爬梳，本研究發現當時西方人所建立的臺灣環境知識，其地理範疇局限於島嶼西半部的平原和丘陵。他們的興趣多集中在自然特徵、原住民生活和產業的景觀。然而，此種由西方人建立的片面、不完整地理知識卻是日人領臺初期據以認識本島自然和人文的基礎，並間接催促殖民者進行更廣泛深入的地理調查。

關鍵字：地理知識、不列顛人、遊歷、網絡、空間侷限性

Abstract

The purpose of this article is to feature the Western conceptions on Taiwanese environment, as it had the profound influence over the initial Japanese impressions of this island. It is wise to explore the Western literature which the Japanese intellectuals and officials inherited and based, although the Japanese knowledge was also constituted by themselves through undertaking a series of fieldwork explorations and

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^a Ph.D. candidate, Department of Geography, Durham University, U.K.; Email: yeh.ej@msa.hinet.net

surveys.

To demonstrate this, my research traces successively the formation and operation of western knowledge-producing networks, with reference to the geographical or environmental perceptions. It is divided into three parts, including the Treaty Ports and the Influx of Westerners, Travelling Topology Modelled by Native Networks, and Restricted Spatial Extent and Lateral Geographical Images. It firstly explains that the influx of Europeans in the latter decades of nineteenth century, mainly the Briton, initiated the development of modern geographical knowledge relating to Taiwan. Second, this article examines the personnel of participating individuals and teams involved. It investigates the methodologies used by these pioneers and enthusiasts for perceiving and representing Taiwanese environments as well. Finally, it features the formatting knowledge produced by these official or leisure tours.

An examination of the materials shows that the spatial extent of these Westerners' cruises was highly restricted to the west part of the island, specifically the hills and plains. It also shows that their interests focus mainly on physical characteristics, aboriginal inhabitants, and industrial landscapes. However, the lateral and partial geographical knowledge constructed by Europeans eventually prevailed before the commencement of Japanese administration.

Keywords: geographical knowledge, the British, fieldtrip, network, restricted spatial extent

*'Long as the island of Formosa has been known to navigators,
and though visited by Europeans centuries ago,
our knowledge of its geography at this period is exceedingly meager.'*

- Henry Kopsch, 1869

Introduction

Formosa, the former title of Taiwan, was named by the Portuguese in the later part of the sixteenth century. Portuguese sailors were impressed by the lush primary forests in their western Pacific voyages which passed along the eastern coast of Taiwan island. Curiously, none of them ever stepped into this '*Ilha Formosa*' which translates from the Portuguese as 'the beautiful island'. However, it is not surprising that there were still several expeditions or journeys undertaken mostly by Europeans and little by North Americans and the Japanese, before the initiation into the formal Japanese administration. The results of their adventures were not only circulated contemporarily through numerous publications among the Anglo-phone and other European language academic spheres, but also inherited as the basis of the later Japanese knowledge about Taiwan. Therefore, it is constructive to look into the actions of Western adventures before our attention is turned to their Japanese counterparts. Perhaps typifying these early encounters is the British explorer, Robert Swinhoe's claim in the mid-1860s that '*the mountain peaks are too multitudinous to enumerate, and the geography of the island too comprehensive to take into present*

consideration' (Swinhoe, 1864: 6). Perhaps because of this diversity and complexity, the alien desires to become better acquainted with the interior of this unknown island did not weaken in the succeeding decades. Why have the Europeans been enchanted by this island for a long time? Henry Kopsch, a British gentleman and F.R.G.S., expressed his eager interests in the geographical knowledge of Formosa as his peers in the later parts of nineteenth century. (Henry, 1869: 79) Taiwan is a mountainous island situated in the West Pacific Ocean and it was administered by the Japanese government from the eighteen ninety-five to the nineteen forty-five. Physically, it is divided into plain, piedmont and highland. The lower countries have been encroached and occupied by the immigrants from south-eastern China since the seventeenth century; however the highlands were kept for the aborigines until the Japanese annexation.

This paper aims to examine the formation of pre-colonial geographical knowledge which was primarily the endeavour of Europeans on Formosa, as the results of this formation had influenced the Japanese environmental conceptions deeply. The production of knowledge at all times has its origins from both of the archive research and field surveys. With the proceeding of survey work, the Japanese had never given up the trial to collect surviving records before their administration as many as possible. Unfortunately, the energetic Japanese intellectuals found that there seemed to be no satisfactory Western language publications. This partly led them paying more attention to the conduct of field works.

The case of Takudzi Ogawa (小川 琢治) supports the thesis mentioned above. Although Ogawa cited several documents which were made by European pioneers, he also expressed dissatisfaction to existing Taiwan knowledge with much regret. Completed in 1896 when was the second year of Japanese administration, Takudzi Ogawa's *The Taiwan Isles* (臺灣諸島誌) was the first major and general publication on the geography of Taiwan by Japanese. This representative gazetteer did not only provide the outline of Taiwanese lands and people but also present the Japanese knowledge about this island annexed. For example, the ethnographical concept that the Taiwanese aborigines could be categorised into four groups, namely Paiwans, Amias, Tipuns, and Pepohoans, was quite popular among the academics and authorities before the Japanese anthropological surveys were formally conducted. This classification which was created by George Taylor, a staff of Chinese Customs Service, through his experiential tour, (Taylor, 1889: 227-235) was not only cited in *the Taiwan Isles* but also quoted in *Outline of Taiwan Industries* (臺灣產業略誌) compiled by Secretariat to Minister of Agriculture and Commerce (農商務大臣官房) and *New Taiwan Gazette* (臺灣新地誌) which was supplement to primary school textbooks. (Takudzi, 1896: 144-165; Secretariat to Minister of Agriculture and Commerce, 1895: 28-30; Ishii, 1896: 10-12)

The Japanese intellectuals invested ardent hopes in broadening their understanding of Taiwan environments, the will however could not solely be reached through European contributions. Takudzi Ogawa, as a member of Japanese academics, suggested that the Japanese intellectuals generally thought that geographical explorations were emergently necessary, partly because the districts occupied by the Savages are virgin lands which no man had accessed, partly for the credible materials regarding the country resided by the Chinamen are not available. He had the following remarks in the opening chapter:

The island of Formosa was incorporated into our nation's territory, but the geographical exploration of

it has not putted into practice until now. On the one hand, the districts occupied by the Savages are as the Dark Continent as Africa or could be analogised the opposite of the moon shadowed by the earth. On the other hand, the credible materials regarding the country resided by the Chinamen are not available. In spite the fact stated as above, as the development and management of Formosa as well as its neighboured islands have engaged the attention of whole Japanese nationals increasingly, one geographical knowledge volume which is worthy referencing would be appreciated. (Ogawa, 1896)

In this light, it is wise to explore the Western literature which the Japanese intellectuals and officials inherited and based, because the nature of pre-colonial knowledge did affect and direct the colonial formation of Taiwanese environmental conceptions to some extent. This article has no attempt to examine all of the pre-colonial documents, but intends to pay special attention to geographical records which were made by the Westerners as well as utilised by the Japanese of earlier period. To sketch the pre-colonial knowledge on Formosa, this article outlines successively the formation and proceeding of western knowledge producing networks, with special reference to the geographical or environmental perceptions. It concludes the highland Taiwan pictures which were depicted by the western enthusiastic adventurers at the end of nineteenth century.

Treaty Ports and the Influx of Westerners

The establishment of pre-colonial knowledge formation network in the late imperial Taiwan must be obliged to the opening of treaty ports and it is also a story about the influx of European aliens. In this light, this section reconstructs briefly the networks which the Western contributors, especially the British pioneers, collected the landscape materials and circulated the knowledge in relation to environment. The Tien-tsin Treaty (天津條約) of 1859, which was signed by the Qing (清)-dynasty government of China with France and Britain, resulted in the opening of the coastal harbours in China. It is in accordance with Articles 8 and 11 of this Treaty that two ports in Formosa are declared open to foreign trade, and British subjects professing or teaching the Christian religion are free to go anywhere beyond, if supplied with passports counter-stamped by the local officials. The first two treaty ports, Tamsui¹ (or Tamsuy 淡水) and Takow (or Takao 打狗), which are located in northern and southern Formosa respectively, became the gateways into the island for Westerners. Shortly after, Kelung (or Keelung 基隆) and Anping (or Amping 安平) were also made accessible.

Varieties of foreigners with permission flowed into the island, as a result, including the missionaries, naturalists, officials and tradesmen. However, the extent which was toured by the strange outsiders had its spatial confines relatively. Indeed, according to Yung-Hua Wu's work on the activities of Western exploration in the late Qing dynasty of the Chinese Empire, it is believed that dozens of foreign explorers made journeys into the enigmatic island of Formosa. (Wu, 1999) Many of these explorers were (deputy)

¹ In fact, there existed no unified format for Chinese script translation at that dates. For an honest representation, all place names and other words which were used by Europeans in the late imperial China would be kept.

consuls or staff affiliated with the Imperial Chinese Customs Service in the treaty ports, while others were missionaries, usually based in English and Canadian Presbyterian missions stationed on the island. (Wu, 1999) Selected stories of these individuals are stated and discussed subsequently. The Westerners tended to travel largely, whether official or amateur purposes, across the lowland countries. Very few people were able to undertake journeys into the highland parts of this island, where were widely regarded as savage districts, savage countries or savage territory (番地). The reason why most westerners failed to visit the savage districts owed to not only the inaccessible precipitous mountains but also the uncivilised fierce aborigines. The aborigines there had occupied, as independent territory, the mountain ranges that cover the central portion of the island since several centuries before the arrival of Han people or Formosan Chinese. Accordingly, in the eyes of Qing government, the Formosan mountain ranges which were the home of savages are taken for granted to be assigned to the names of savage country, savage district or savage territory.

Dozens of western officials and missionaries resided in Tamsui or Takow, but not all of them made any journeys around Formosa as well as documented their itineraries. Lieutenant Gordon was one the first Europeans to explore Formosa in 1848. His purpose was to survey the coal mines in the north-eastern part of Formosa and to evaluate whether it was an ideal station site for fuel supply (Gordon, 1849: 22-25). Less than ten years after Gordon's arrival, Robert Swinhoe visited the island in 1857. Swinhoe's ambition, which was much more extensive than Gordon's, was not only to select the most prominent ports of the island for British trade, but also to investigate the abundance of agrarian and forestry produces within the hinterlands of these ports (Swinhoe, 1864: 15-18). These were to be the ports that were opened under the Tien-tsin Treaty of 1859.

Many of his documents contributed to the initial creation of knowledge about Formosa in the latter half of nineteenth century, so Swinhoe's work deserves further investigation. Robert Swinhoe (Plate 1), F. R. G. S., was not only the first western officer stationed in the late Qing dynasty Taiwan, but also one of the pioneers in the arena of Formosan natural history prior to the arrival of the Japanese adventurers. He was born in Calcutta, India. There is no clear record of the date of his arrival in England, but it is known that he attended the University of London while in 1854 joined the China consular corps. Swinhoe began his official career in Taiwan as the vice consul in 1860, and then was promoted to the first consul stationed in this island in 1865. He finally departed from Taiwan when he was seconded as the deputy consul in Amoy in 1866. His work was significant in opening the island to the world by the publication of several important essays in the journals of numerous scientific societies.



Plate 1

Robert Swinhoe, the first western officer stationed in the late Qing dynasty Taiwan

Despite this, all three of Swinhoe's journeys were along the coasts of north-east and south-west Formosa, and limited to exploring only the accessible margins of these coastal lands. In addition to small-scale and coast-based fieldtrips undertaken by Swinhoe, he also derived some of his information from a Chinese source. The 'Gazetteer of Taiwan Prefecture' (臺灣府志), which was edited by Kung-Chhien Kao (高拱乾) in circa 1694, provided some of the primary materials that Swinhoe described. For example, Swinhoe ever showed some animal species which could be seen in Formosa to the readers of the North China Branch of the Royal Asiatic Society. (Swinhoe, 1865: 39-52) In his article titled as '*Neau-Shou* 鳥獸', *Birds and Beasts (of Formosa)*, Swinhoe indicated clearly the source of material that: *from the 18th chapter of the Tai-wan foo-chi* (臺灣府志), *Statistics of Taiwan*. The information Swinhoe gathered and dispensed was of the greatest interest not only to his naturalist peers but also to experts of different origins worldwide. During his career, he published over one hundred and twenty articles on the zoology, geography and ethnography of Eastern and Northern China² His work was referred to in numerous publications in the ensuing decades. For instance, when Henry Kopsch was making notes on the rivers in northern Formosa, he directed the readers to refer to the map attached in Swinhoe's essay of 1864. (Kopsch, 1869: 8; Swinhoe, 1864: 18)

² The published writings of Robert Swinhoe could be accessed by <http://home.gwi.net/~pineking/RS/MAINLIST.htm>

The importance that Robert Swinhoe's work lies in the fact that he re-introduced the island of Formosa to the world after the opening of the treaty ports in the 1860s. Swinhoe inspired public interests in the island, as well as several explorations that succeeded him and expanded his work. The rich and varied fauna of Formosa, today also known in the West as 'Taiwan', as well as the relatively inaccessible circumstances of that time, were revealed in Swinhoe's series of notes and accounts pertaining to Formosa. (Hall, 1987: 37) Although Formosa had been long recognised by the European sea navigators who sailed around the coast of West Pacific since the sixteen century, it was Robert Swinhoe re-opened this island to the world. Even though he suffered difficulties due to the frequently interrupted mailing service, he persisted in corresponding with some of the influential societies, such as the Royal Geographical Society, the North China Branch of the Royal Asiatic Society, and other groups and societies involved in natural history. (Chang, 1994: 134-137) The following questions are how the officers and missionaries did configure the environmental impressions relating to Taiwan as well as if their itineraries of these subsequent expeditions displayed some different patterns. Therefore, after explaining the influx of westerners in the latter decades of nineteenth century, this section continues to examine the formation of their knowledge producing networks with reference to the still existed travelling itineraries.

Travelling Topology Modelled by Native Networks

The formation of Taiwan environmental knowledge which was produced by the western pioneers in the late imperial period would be approached by one part of their constitutive life experiences on this island, namely tour, visit or journey practices,. The trials in this article would be completed through analysing their itineraries. Tab.1 summarises some of the key expeditions that succeeded Swinhoe's initial forays where records still exist. On the one hand, it indicates the travelling purposes of captains, consuls and clergy who left the footprints all over the island. On the other hand, this table also states that who led the journey, as this demonstrate that their itineraries were made not necessary by themselves rather determined by someone else. Fig.1 illustrates the routes taken by the pre-Japanese Western explorers, and assists in identifying the places to which reference will be made. It is interesting but not surprising that the reasons why nearly most of the travelogues and accounts are in relation to the Royal Geographical Society are not only the numerous Briton were most active among the foreigners in late imperial Taiwan but also these pre-colonial documents constitute the radical reference basis for the knowledge-shaping successors, namely the Japanese intellectuals and authorities.

Through an examination of the itineraries in Table 1, a minimum of two notable features are stated as follows. Firstly, (Deputy) Consuls, staff of H.M.S. and Presbyterian missionaries made their journeys with the purposes of official inspection or leisure interest. For example, in the summer of 1881, Beazeley made the journey as part of his duties whilst in the Department of Works in the Chinese service, and engaged in putting up lighthouses. The object of the journey was to visit the South Cape, select a site for the lighthouse and obtain the necessary piece of land from the aborigines for the Chinese Imperial Maritime Customs.

(Beazeley, 1885: 5) While later in the 1886, George Taylor, who stationed in Imperial Chinese Customs Service, visited the South Cape. In these leisure trips, he not only made observations and recorded them, but also collected some folk-tales from the Botan tribe. (Taylor, 1887: 139-153)

Secondly, it is apparent that the Westerner's travelling topology was erected by means of a native network. However, it is advisable to outline the ethno-map of Formosa in Qing reign and is worthy to remark that this ethnic categorisation is rather culturally oriented but conforms to temporal situation before going on to the main texts. The north and west of the island, including lowlands, tablelands, and lower hills in topography, which are chiefly inhabited by the people called the Han Chinese (漢人), that is, the immigrants from Fukien (福建) and Kwangtung (廣東) provinces of South China. The tribesmen who occupied the centre of the island but were out of Qing authority are the namely uncivilised aborigine, wild savage³ or Chhe-hwan (生番) in Fukien dialect of Chinese language. In terms of the civilised aborigine⁴ or tamed aborigine, whose names given by Westerners, the situations of their villages located are scattered but always intermediated between the Han Chinese and the uncivilised aborigine, with the exception of the villages spotted in plains. They also known as the Pepohoan (Pei-po-hwan, 平埔番) Sek-hwan (熟番), or Sekhuan (熟番)⁵.

Due to the unfamiliarity of the physical environments and local conditions in Formosa, the visits of European explorers usually began with the hiring of natives as servants, porters and interpreters. As Kopsch admitted in his journey notes of the Tamsui River watershed which is located in northern Formosa: *'owing to the presence of a hostile race of savages throughout the island, who glory in the murder of Chinese, and since in these latitudes it is difficult to travel without such assistance, one is debarred from penetrating the interior'*. (Kopsch, 1869-1870: 79) The reluctance of local guides to take Europeans into the interior and fears about these 'hostile savages' confined the expeditions across Formosa to the specific spatial areas. In other words, these enthusiastic travellers usually followed the social linkages which had been established by the Han Chinese or tamed aborigine. This was the case with both short excursions and long overland journeys around the island.

³ These two words 'wild savage' and 'Chhe-hwan' are seen in Report of a Journey into the Interior of Formosa made by Acting Assistant Bullock, 1873, p395

⁴ For example, the term 'civilised aborigine' could be found in Report by Acting-Consul Hewlett on the Trade of the Port of Taiwan, for the Year 1870, p298.

⁵ These three terms are pronounced in Fukien (or Hokkien) dialect which is one dialect of Chinese appellations. 'Pepohoan' mean savage of the plains, while Sek-hwan and Sekhuan refer to civilised savage or groups of aborigine who had had previous contact with Han Chinese.

Table 1 Extract of Western Explorations, 1860-1895

Name	Itinerary	Year	Purpose	Who led the journey	
Swinhoe	Trip ascending the Kelung branch of Tamsuy River	1857	Commercial survey which consists of visiting coal and sulphur mines, as well as selecting trade ports	Not stated	1
Swinhoe	North-East Formosa voyage of Kelung, Palm Island, Steep Island and Sawo Bay	1864	Exploration	Not stated	2
Swinhoe	South-West Formosa voyage of Takow, South Cape, Hongkong and Lungkeaou Bay, with one inland visit to Kalee tribe	1864	Make enquiries about the supposed wreck of the nearby at South Cape	Chinese settler	3
Collingwood	A boat Journey across the Northern End of Formosa, from Tam-suy, on the West, to Kee-lung, on the East; With Notices of Hoo-wei, Mangka, and Kelung.	1866	Leisure trip	Chinese servants	4
Hughes	Visit to Tok-e-Tok, Chief of the Eighteen Tribes, Southern Formosa	1867	Rescue castaways of shipwreck junk, chartered by Messrs. Millisch and Co., of Tamsui.	One young Chinese act as his escort to the savage territory	5
Kopsch	Trip ascending the Kiang-pih (Kieng-bay) and To-ka-ham branches of Tamsui River	1867	Exploring some of the affluents of the stream known as the Tamsui River, which debouches into the sea at Hu-wei (Tamsui).	Chinese owner of a boat	6
Thomson	A journey in southern Formosa	1871	Obtaining a collection of photographs of, and exact information regarding, the people and provinces visited	Hired six Baksa Pepohoans as bearers of my instruments and baggage	7
Bax	A trip from Takow to Ling-a-leau, Pethou, Hoeng-sia, Baksa, Ka-ma-na and A-lu-kan	1871	Visit a village inland where lies a small Christian community of Peppohoans	Rev. H.Ritche of the London Presbyterian Mission Society	8
Bax	Expedition to Mount Sylvia	1872	Visit Mackay's mission stations and intend to ascend Mount Sylvia, but failed finally	Mackay of Canadian Presbyterian Church	9
Bullock	A trip into interior of Formosa, with special reference to Po-sia	1873	In accompany with Campbell to visit his native converts	Campbell and his baptised Pepohoan fellows	10
Corner	Journey in the interior of south Formosa	1875	Making some notes and sketches of the country occupied by the Aborigines(Accompany by Dr. Krauel, German Consul at Amoy) Calipo and Kao-siah	Not stated	11

Table 1 Extract of Western Explorations, 1860-1895 (Continued)

Name	Itinerary	Year	Purpose	Who led the journey	Source
Allen	A Journey through Formosa from Tamsui to Taiwanfu	1875	Visit the mission stations with Mackay and Ritchie	Mackay and Ritchie	12
Beazeley	Overland journey through the southern part of Formosa, from Takow to the South Cape	1875	Visit the South Cape, select a site for the lighthouse and obtain the necessary piece of land from the aborigines for the Chinese Imperial Maritime Customs	Several Mandarins(i.e. Chinese officials)	13
Corner	A tour through Formosa, from south to north	1876	To see something of the other tribes of aborigines, some of whom I described in a journal of my visit to the south in the early part of the year	Chinese burden bearers who act as guides and two Pepohoans guides live at Lai-sia	14
Hancock	A visit to the savages in the south suburb of Tamsui,	1881	To see something of aboriginal tribe in Kotchou vicinity	Chinese interpreter	15
Taylor	A ramble through south-eastern Formosa	1887	Leisure trip	Not stated	16

Source

1 Swinhoe, Robert 1858, Narrative of a Visit to the Island of Formosa, Journal of the North China Branch of the Royal Asiatic Society.1(2):145-164;

Swinhoe, Robert 1864, Notes on the Island of Formosa, Journal of the Royal Geographical Society of London, 34: 6-18.

2 Swinhoe, Robert 1865 – 1866, Additional Notes on Formosa, Proceedings of the Royal Geographical Society of London, 10(3): 122-128.

3 Swinhoe, Robert 1865 – 1866, Additional Notes on Formosa, Proceedings of the Royal Geographical Society of London, 10(3): 122-128.

4 Collingwood, Cuthbert 1866 – 1867, A Boat Journey across the Northern End of Formosa, from Tam-suy, on the West, to Kee-lung, on the East; With Notices of Hoo-wei, Mangka, and Kelung, Proceedings of the Royal Geographical Society of London, 11(4):167-173.

5 Hughes, Thomas. F. 1871 – 1872, Visit to Tok-e-Tok, Chief of the Eighteen Tribes, Southern Formosa, Proceedings of the Royal Geographical Society of London, 16(3): 265-271.

6 Kopsch, Henry 1869-1870, Notes on the Rivers in Northern Formosa, Proceedings of the Royal Geographical Society of London, 14(1): 79-83

7 Thomson, John. 1872 – 1873, Notice of a Journey in Southern Formosa, Proceedings of the Royal Geographical Society of London, 17(3): 144-148; Thomson, J. 1873, Notes of a Journey in Southern Formosa, Journal of the Royal Geographical Society of London, 43: 97-107.

8 Bax, Bonham Ward 1875, The Eastern Seas: Being A Narrative of the Voyage of H. M. S. "Dwarf" in China, Japan and Formosa, London: John Murray.

9 Bax, Bonham Ward 1875, The Eastern Seas: Being A Narrative of the Voyage of H. M. S. "Dwarf" in China, Japan and Formosa, London: John Murray.

10 Bullock, T. L. 1877, A Trip into the Interior of Formosa, Proceedings of the Royal Geographical Society of London 21(4): 266-272.

11 Corner, Arthur 1874 - 1875, Journey in the Interior of Formosa, Proceedings of the Royal Geographical Society of London, 19(7): 515-517.

12 Allen, Herbert J. 1877, Notes of a Journey Through Formosa from Tamsui to Taiwanfu, Proceedings of the Royal Geographical Society of London 21(4): 258-266.

13 Beazeley, M. 1885, Notes of an Overland Journey Through the Southern Part of Formosa, from Takow to the South Cape, in 1875, with an Introductory Sketch of the Island, Proceedings of the Royal Geographical Society and Monthly Record of Geography, New Monthly Series, 7(1): 1-23.

14 Corner, Arthur (1877 - 1878)1877, A Tour Through Formosa, from South to North, Proceedings of the Royal Geographical Society of London, 22(1): 53-63.

15 Hancock, W.1885, A Visit to the Savages of Formosa, Good Words, 373-379.

16 Taylor, George 1887, A Ramble Through Southern Formosa, China Review, 16.



Figure 1 Field sites and routes of Western explores until the 1895

In the lowland countries, the Han Chinese at times acted as the porters and guide men for European travellers, while the ‘Mandarin road (官道)⁶’, which was established for government administration as well as for linking chief towns in the western lowlands and hills of Taiwan, was taken for granted as the main boulevard from south to north. For example, except for the interior parts of their journeys, the expeditions by T. L. Bullock (1873), Herbert J. Allen (1875) and Arthur Corner (1876) proceeded for the most part along the Mandarin road. In the borderlands between the Savage districts and the Han-dominated area, Han interpreters or local elites who were familiar with aboriginal affairs were enlisted. These interpreters had an intimate knowledge of the aboriginal language, which was critical in dealing with local inhabitants. Through the use of such guides, Robert Swinhoe (1864) and William Hancock (1881), for example, were introduced into the Paiwan aboriginal village in south Formosa and the Taiyal tribe in the south suburb of Tamsui respectively (Table 1).

Moving eastward to the periphery of the Savage territory, the tamed aborigines were employed in the same roles as the Han in other parts of the island. The 1873 journey into the Po-sia, which was conducted by William Campbell, Bullock and Joseph Steere⁷, provides a good example to demonstrate that most of the Western travellers followed the trajectory made previously by missionaries, and most of these tracts were made accessible by the use of the local network of tamed aborigines (熟番). Po-sia (埔社) is a great basin which is surrounded by hills and mountains and lies near the heart of Formosa. The ‘Po-sia Trip’ route eventually became one of the most popular ‘Interior package tours’ among European and American visitors. However, according to the existed documents, only eight foreigners had ever visited the interior district of central Formosa before the year 1895, namely William Campbell, T. L. Bullock, Joseph Steere, Arthur Corner, Dr. Krauel, Herbert J. Allen, George Leslie Mackay and Hugh Ritchie (Table 1). The first trip by Reverend William Campbell to Po-sia was made in November of 1872. (Campbell, 1889: 258-274) This was a missionary excursion, which was directed by local inhabitants who had been newly-baptised as Christians of tamed aborigines. The journey commenced at Toa-sia (大社), travelling through Lai-sia (內社), across many precipitous ravines and ridges, finally arriving at several hamlets in Po-sia, including Gu-khun-soa (牛眠山), O-gu-lan (烏牛欄) and Toa-lam (大瀨). Almost one year later, Campbell made his third journey to Po-sia with Bullock, who was British Acting Assistant to Taiwan, as well as Joseph Beal Steere, who was a Collector in Natural History for the State Museum of Michigan, United States.

On the 14th of October, 1873, Bullock and his company left Taiwanfoo and travelled for three days northeast. On the fourth day they travelled east for one and a half days to Tsui-sia-hai Lake (Lake Candidius). Another day's march north from that lake of Tsuisia brought them to the valley of Po-sia or Polisia (埔裏社). They stayed in Po-sia for a fortnight, during which time Bullock made a three-day trip to the country of the Chhe-hwan⁸ natives. In this trip to the lands east of Po-sia, the exploration team was guided by a Sek-whan

⁶ See also the Arthur Corner's tour account, Corner, 1877-1878: 55, 59.

⁷ Also see Steere's account of ‘Formosa’ and Bullock's piece ‘A Trip into the Interior of Formosa’ & Report of a journey into the interior of Formosa.

⁸ Chhe-hwan (生番), also Fukien dialect, meant uncivilised savage.

named Atun. From Po-sia, they travelled west two days to Chang-wha Hsien (彰化縣). There, Bullock left his companions after one day and travelled alone to Taiwanfoo (or Taiwanfu, 臺灣府). (Bullock, 1873: 395)

George Leslie Mackay, who was a Canadian Presbyterian, was based in the vicinity of Tamsui. Not only was he pleased to offer assistance to western travellers, but his residence also became the starting point or destination of many of their journey. For example, Joseph Steere and Herbert J. Allen, who was the British Acting Vice-Consul at Tamsui, were the guests of Mackay. In addition, Mr. Mackay invited Bonham Ward Bax and Allen to visit his mission stations in 1872 and 1875 respectively (Bax, 1875: 116-135; Allen, 1877: 259).

Another example is the journey made by James Laidlaw Maxwell, who was famous for directing the expedition by John Thomson into the eastern district of Taiwanfoo. In 1865, Dr. Maxwell, a graduate of Edinburgh University, became the first English Presbyterian missionary to practice medical missionary work in Formosa, having arrived at the southern side of the island. Shortly afterwards, in 1870 and 1871, he promoted the foundation of four gospels at Baksa (木柵), Poah-be (拔馬), Kong-a-na (岡子林) and Kam-a-na (柑子林) respectively, (Band, 1972: 75-76; 82-84) all of which are some twenty miles east of Taiwanfoo, and all belonging to Pepohoan tribes of the Siraya race. John Thomson, another participant of this eastern Taiwanfoo journey, who was a photographer and also one F.R.G.S., was born in Edinburgh in 1837 but travelled across East and Southeast Asia from Ceylon, Malay Peninsula, Siam, Cambodia, Macau, Hong Kong, Amoy, Formosa to China since 1860s. (John Thomson's obituary, 1921: 470) He took record of his journeys by cameras and published the results as *'Illustrations of China and its people: A series of two hundred photographs, with letterpress descriptive of the places and people represented'* (Thomson, 1873-1874) which are valued by both past and contemporary people. In April of 1871, John Thomson became acquainted with Dr. Maxwell at an encounter in Amoy (廈門), Fukien (福建), south China, and was invited to make a journey to Formosa by Maxwell, perhaps for their same Edinburgh origins. In a similar vein to the Po-sia expeditions, all but one month of Thomson's itinerary in Formosa was scheduled by Maxwell, according to his account. (Thomson, 1872-1873)

One conclusion that can be drawn from these examples is that most of the travelling routes made by Western explorers were suggested, and even dominated, by the European and North America missionaries. It was apparently impossible to undertake unaccompanied or casual overland journeys in Formosa because of a lack of familiarity among outsiders and the many restrictions they encountered.

Restricted Spatial Extent and Lateral Geographical Images

Control of access to inland and field sites led to limited observation results. The historic accounts, which were published in those journals and magazines mentioned above, focused upon descriptions of flora, fauna and folklore, but also provided a window into the island's physical and human geography. The case of Taiwan echoed what Fan observes in his study of the progress of Western natural history in the nineteenth-century Qing China, as well as accompanying or serving the interests of the commercial activities

and imperial expansion. Fan claims that the natural life of China presented by the Western natural historians was highly determined by the restricted field sites, which were also connected to the geography of commerce. For example, because travellers were restricted to places such as treaty-ports, these also became the places in which naturalists built their collections. Thus, the markets selling domestic produce and herbal stores became their field sites (Fan, 2004). In effect, many of the field sites were markets, not natural settings, and collection depended upon indigenous trade routes and categorisations. By the late nineteenth hundreds, Taiwan, especially 'Highland Taiwan', was not open to anyone who wanted to enter it, even though it is rich in forest and mineral resources there, such as camphor extracted from trees or petroleum well beneath the land surface. For example, Swinhoe enabled the world to become aware of the timber wealth of Taiwan (Swinhoe, 1864: 17-18). And John Dodd point out the existence of petroleum in central Taiwan, stating that I discovered the petroleum wells in 1865 on my first visit to the lofty mountains, soon after named the Sylvian range, and the Dodd or Western range. (Dodd, 1895: 556)

The difficult accessibility of Highland Taiwan and the east coast of the island, partly for ethno-political conditions and partly for physical difficulties, still confined the outsiders' knowledge to the 'terra incognita' until the establishment of the formal Japanese administration. As stated above, passionate missionaries and ambitious consuls used their local networks of natives, both Chinese residents and the civilised aborigines, in order to wander across the lowland plains of Formosa. However, it appeared to no highland tours in any sense. The so-called interior journeys the explorers claimed are actually the piedmont excursions around the lower hills that were no higher than one thousand meters at the most. Even so, Beazeley argued that since the island was '*opened by the Treaty of Tientsin to foreign commerce in 1860, it should by this time have been thoroughly explored; whereas we know almost nothing of the interior, the range of mountains, and the east coast*' (Beazeley, 1885: 1-2)

As a consequence of this temporal-spatial context, the Qing regime of statecraft and contemporaneous ethno-politics (Shih, 1990; Ka, 2001), the Savage districts (番地) had become the forbidden area of Taiwan for outsiders. It remained the preserve of indigenous inhabitants from the early eighteenth century throughout the end of Qing dynasty (1895). Although the Savage borderline was not fixed and had been moved eastward several times due to the invasion of Han Chinese, its effect was to restrict movements of people within the island and to ensure separation between the Chinese and indigenous groups. The Government forbade their people to cross the boundary of savage districts, which was well defined by this time. Beyond this line no Chinese was allowed to enter the Savage districts and no 'Savage' was permitted to enter the lowland plains without official permission. Of course, Western explorers were not the exception to this rule.

Not only the Qing government, but also the westerners were quite unfamiliar to the conditions and affairs in the savage districts before the Japanese administration. In the historical background which stated before, the Chinese Government expressed little interest in improving their knowledge of Taiwan highlands until the 1870s. However, following the Japanese expedition against the Bootan tribe (or Botan 牡丹社) in the south part of the island in 1874, the Chinese officials altered their policy and found themselves looked on

as authorities of the whole island, took active steps to govern this part of territories. However, the Qing government in Taiwan still owned little knowledge which confined to specific areas until the regime of Taiwan was transferred to Japanese government.

Accordingly, these sorts of geographical images, which are derived from the Westerners explorations as well as political and economic reports, are unilateral and fragmented in overall. Indeed, this is partly because that Admiralty charts seemed to be the only available cartographical basis when these British outpost officers and stationed missionaries undertook their field trips. From the accounts of Robert Swinhoe in mid nineteenth century to the description of William Campbell at the end of nineteenth hundreds, the information appeared in Admiralty charts was not only depended upon the reference for their respective itineraries but also seen as the basis for calculation of length, width and the area of Formosa Island. (Swinhoe, 1858; 1864; 1865-1866; Campbell, 1896)

The progress of outsider's geographical knowledge on Taiwan is not quick but it is steady. The environmental conceptions featured the comparatively detailed seashore line, the lower-course streams, the densely-populated towns and the imagined arrangement of the mountain ranges. (Figure 2 & Figure 3) In addition, the westerners had nearly no knowledge about the central and eastern parts of the island, namely highland Taiwan or savage districts. It is clear that the areas mentioned above were almost blank in the maps which were compiled by admiralty or custom services. This was exemplified by the physical descriptions of Formosa by Alexander Hosie, who was Acting Consul at Tamsui.

After nearly forty years of fieldtrips overland in Formosa, the original depictions of Taiwan as *terra incognita* were gradually being filled, but European intellectuals such as Hosie still failed to construct a complete physical geography of the island until the mid-1890s. In one commercial report presented to Parliament in 1893, Hosie claimed that '*Its geological formation has, to a certain extent, been ascertained*'. However, he added that '*the composition of the high axial range which runs from north to south through the eastern half is still imperfectly known*'. He presented a one-page sketching of the geography of northern Formosa, which occupied the most productive districts exporting tea and camphor. Also, it possessed the highest commercial importance of the island to the British Empire. Both of the waterways of lower Tamsui Valley and the harbour of Kelung, which are situated at the north Formosa, are also detailed in the section of '*Physical Characteristics*'. (Hosie, 1893: 4-7)

Both of these two aforesaid maps, Figure 2 and Figure 3, were presented by resident Consuls, but in different occasions. The former was an illustration enclosed in the journal of Royal Geographical Society by Robert Swinhoe, while the latter was attached in a report to Parliament by Alexander Hosie. Both of them were compiled on the basis of Admiralty Charts, thus the accuracy and freshness of information may be accepted satisfactory. Most ascertain information would be appreciated in scientific manner. For example, the words printed in 1864 sketch map demonstrate the selection of new discoveries: '*The coast from Kok-Si-kan to Ta-kau-kon has been inserted from a partial Survey by Mr Richards. As it is uncertain how far re-correction extends, the coast north is left according to the former imperfect Charts*'. (Robert, 1864: 6-7)

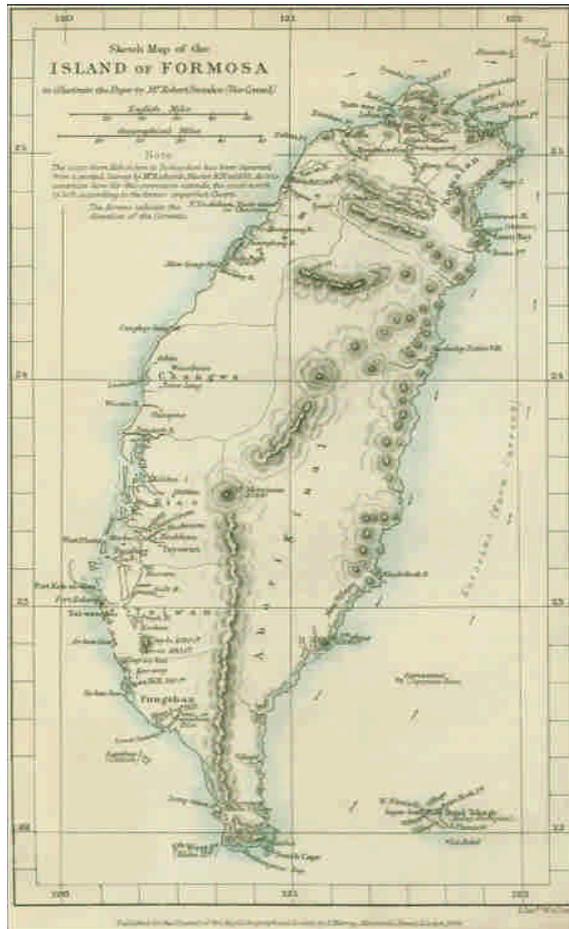


Figure 2 British Knowledge on the island of Formosa in the 1860s. (Swinhoe, 1864)



Figure 3 British Knowledge on the island of Formosa in the 1890s. (Hosie, 1893)

Apart from the subjective description of physical features relating to Taiwan geography, considerable records about the human landscapes appeared as well. Typical scenery, on the one hand, in the countryside was at all times depicted in traveller journals. For example, Henry Kopsch stated that Ku-lun-an is a picturesque little village situated on the left bank, and is surrounded by clumps of feathery bamboos. The neighbourhood was richly cultivated with sugar-cane, hemp, and vegetables, and considerable boat traffic was observed on the river. (Kopsch, 1869: 80) Other industrial landscapes were also stated, such as Taylor's remarks. 'Northern Formosa is comparatively hilly, but large areas are covered with tea plantations, which form the principal industry'. (Taylor, 1889: 225) On the other hand, stepping into savage districts, the exotic folklore of aboriginal inhabitants became the themes of documents. George Taylor's ethnographical classification of Taiwan aborigines, which was presented at the Geographical Section of the British Association at Bath, in September of 1888, could be listed as one of earlier and scientific sub-division of aborigine concepts. Those inhabitants of Formosa who have so preceded the Chinese, and others who in point of priority of arrival in the island are entitled to be termed aborigines, may be divided into four divisions—the Paiwans, Amias, Tipuns, and Pepohoans. (Taylor, 1889: 227) Although this sub-division was incomplete, it was clearly distinguished from the traditional Taiwan aboriginal discourse based on tribe or community.

Nevertheless, the specific and concentrated journeys of Westerners would be responsible for their distorted geographical knowledge of Formosa. Due to few Japanese had ever visited Formosa, what we could expect is that the intentional preference of the European and American actors that time may help to shape the Japanese successor's knowledge of Taiwan in the following decades.

Conclusion

The Japanese were disappointed with the literal and pictorial source of materials contributed by Europeans. An examination of these materials indicates that the spatial extent of these Westerners' cruise was highly restricted to the west part of the island, specifically the hills and plains. It also shows that their interests focus mainly on physical characteristics, aboriginal inhabitants, and industrial landscapes. Nevertheless, the lateral and partial geographical knowledge prevailed.

The primary contribution of the deficient conceptions which was formatted by the European explorers relating to Taiwan geography was to discourage the Japanese to further records examination. Thus, much attention had been paid to conduct the field surveys.

The restricted geographical knowledge resulted from the spatial network of information production and circulating. It is the specific networks which were weaved from the historical events and social situations that the Taiwanese environmental knowledge which was accepted by the modern geographic spheres was initially created. These interlinked but sometimes separate networks include at least collecting network and circulating networks. The former networks were constructed by the long-stay missionaries who produced by-products with their religious work and the short term stationed officers who kept journals for their official

or leisure tours respectively. The activities and the roles of some key figures are difficult to be ignored in the network of knowledge collecting and circulating. Take William Campbell for example, the 1873 Po-sia journey was impossible if he failed to construct the bridge between the natives and his fellow travellers. In addition, it would be much insufficient if the lack of this long-resided missionary's geographical account, *The island of Formosa, Its past and future* (1896) in the Royal Scotland Geographical Magazine. However, the latter circulating associations are rather difficult to construct, because the available materials are refined. We are only aware of that the Britain-based geographical knowledge reporters at all times submitted their descriptions and addressed their field experiences in the Royal Geographical Society of London mostly or the Royal Asiatic Society (North China and Straits branches⁹) less.

Reference

- Allen, Herbert J. (1877): Notes of a Journey Through Formosa from Tamsui to Taiwanfu, *Proceedings of the Royal Geographical Society of London*, 21(4): 258-266.
- Band, Edward (1948): *Working His Purpose Out: The History of the English Presbyterian Mission 1847-1947*. Originally published by London: Presbyterian Church of England and reprinted by Chheng Wen Publishing Company, Taipei, 1972.
- Bax, Bonham Ward (1875): *The Eastern Seas: Being A Narrative of the Voyage of H. M. S. "Dwarf" in China, Japan and Formosa*, London: John Murray.
- Beazeley, M. (1885): Notes of an Overland Journey Through the Southern Part of Formosa, from Takow to the South Cape, in 1875, with an Introductory Sketch of the Island, *Proceedings of the Royal Geographical Society and Monthly Record of Geography*, New Monthly Series, 7(1): 1-23.
- Bullock, T. L. (1873): Report of a Journey into the Interior of Formosa made by Acting Assistant Bullock, in company with the Rev. W. Campbell, of the English Presbyterian Mission, and Mr. Steere, Collector in Natural History for the State Museum of Michigan, United States, October and November, 1873. in Robert L. Jarman ed. *Taiwan: political and Economic Reports, 1861-1960*, vol. 1, 392-400.
- Bullock, T. L. (1877): A Trip into the Interior of Formosa, *Proceedings of the Royal Geographical Society of London*, 21(4): 266-272.
- Campbell, Rev. William (1889): *An Account of Missionary Success in the Island of Formosa*. London: Trubner & Co.
- Campbell, Rev. William (1896): The island of Formosa: Its past and future, *Scottish Geographical Magazine*, 12(8): 385-399.
- Chang, F.Y.T. (張譽騰) (1994): The Outline of Robert Swinhoe's Natural Historical Survey in Taiwan and the Associated Materials, *Taiwan Historical Research* 〈臺灣史研究〉 1(1): 132-151.

⁹ For example, John Dodd's 1882 article 'Probable Origin of the Hill Tribes of Formosa', *Journal of the Straits Branch of the Royal Asiatic Society*.

- Collingwood, Cuthbert (1866 – 1867): A Boat Journey across the Northern End of Formosa, from Tam-suy, on the West, to Kee-lung, on the East; With Notices of Hoo-wei, Mangka, and Kelung, *Proceedings of the Royal Geographical Society of London*, 11(4): 167-173.
- Corner, Arthur (1874 – 1875): Journey in the Interior of Formosa, *Proceedings of the Royal Geographical Society of London*, 19(7): 515-517.
- Corner, Arthur (1877-1878): A Tour Through Formosa, from South to North, *Proceedings of the Royal Geographical Society of London*, 22(1): 53-63.
- Dodd, John (1882): Probable Origin of the Hill Tribes of Formosa', *Journal of the Straits Branch of the Royal Asiatic Society*, 9: 69-84.
- Dodd, John (1895): Formosa, *Scottish Geographical Magazine*, 11: 11,553-570.
- Fan, Fa-Ti (2004): *British Naturalists in Qing China: Science, Empire, and Cultural Encounter*, Cambridge: Mass.
- Gordon, (1849): Observations on Coal in the N. E. Part of the Island of Formosa, *Journal of the Royal Geographical Society of London* 19: 22-25.
- Hancock, W.(1885): A Visit to the Savages of Formosa, *Good Words*, 373-379.
- Hall, Philip B. (1987): Robert Swinhoe (1836-1877), FRS, FZS, FRGS: A Victorian Naturalist in Treaty Port China, *The Geographical Journal* 153(1): 37-47.
- Hosie, Alexander. (1893): *Report on the Island of Formosa with Special Reference to its Resources and Trade*. Parliamentary Paper, Commercial Hall.
- Hughes, T. F. (1871 – 1872): Visit to Tok-e-Tok, Chief of the Eighteen Tribes, Southern Formosa, *Proceedings of the Royal Geographical Society of London*, 16(3): 265-271.
- Imbault-Huart Camille (1893): *L'île Formose: Histoire et description*, Paris: Ernest Leroux.
- Ishii, Miyasaburo (石井 宮三郎) (1896): *New Taiwan Gazette* (臺灣新地誌), Tokyo: Tamema Press. (東京: 田沼書店)
- Ka, Chih-Ming (柯志明) (2001): *The Aborigine Landlord: Ethnic Politics and Aborigine Land Rights in Qing Taiwan*. 〈番頭家：清代臺灣族群政治與熟番地權〉, Taipei: Institute of Sociology, Academia Sinica. 〈臺北：中央研究院社會學研究所〉
- Kopsch, Henry (1869 -1870): Notes on the Rivers in Northern Formosa, *Proceedings of the Royal Geographical Society of London*, 14(1): 79-83.
- Ogawa, Takudzi (小川 琢治) (1896): *The Taiwan Isles* 〈臺灣諸島誌〉, Tokyo: The Tokyo Geographical Society. 〈東京：東京地學協會〉
- Secretariat to Minister of Agriculture and Commerce (農商務大臣官房) (1895): *Outline of Taiwan Industries* (臺灣產業略誌), Tokyo: Hotta Printing Company. (東京: 堀田印刷所)
- Shih, Tien-Fu (施添福) (1990): The earth-ox borderline and regional development in Chu-Chhien of Qing Taiwan: A study of historical geography (清代臺灣竹塹地區的土牛溝和區域發展——一個歷史地理學的研究) · *Tai-Wan feng wu* 〈臺灣風物〉, 40(4): 1-68.
- Steele, J. B. (1874): Formosa, *Journal of the American Geographical Society of New York*, 6: 302- 334.

- Swinhoe, Robert (1858): Narrative of a Visit to the Island of Formosa, *Journal of the North China Branch of the Royal Asiatic Society*.1(2): 145-164:
- Swinhoe, Robert (1864): Notes on the Island of Formosa, *Journal of the Royal Geographical Society of London*, 34: 6-18.
- Swinhoe, Robert (1865–1866): Additional Notes on Formosa, *Proceedings of the Royal Geographical Society of London*, 10(3): 122-128.
- Swinhoe, Robert (1865): List of Species of Mollusks Collected in Formosa, *Proceedings of Zoological Society of London*, part1, 196.
- Swinhoe, Robert (1865): ‘Neau-Shou 鳥獸’, Birds and Beasts(of Formosa), *Journal of the North China Branch of the Royal Asiatic Society*, 39-52.
- Swinhoe, Robert (1866): List of Species of Mollusks Collected in Formosa, *Proceedings of Zoological Society of London*, part2, 146.
- Swinhoe, Robert (1870): Catalogue of the Mammals of China (South of the River Yangtze) and of the Island of Formosa, *Proceedings of Zoological Society of London*, 615-653.
- Taintor, E. C. (1874): The Aborigines of Northern Formosa, *Journal of the North China Branch of Royal Asiatic Society*, 9: 53-88.
- Taylor, George (1887): Folk-Lore of Aboriginal Formosa, *The Folk-Lore Journal*, 5(2): 139-153.
- Taylor, George (1889): Formosa: Characteristic Traits of the Island and Its Aboriginal Inhabitants, *Proceedings of the Royal Geographical Society and Monthly Record of Geography*, New Monthly Series, 11(4): 224-239.
- Thomson, J. (1872 – 1873): Notice of a Journey in Southern Formosa, *Proceedings of the Royal Geographical Society of London*, 17(3): 144-148.
- Thomson, J. (1873): Notes of a Journey in Southern Formosa, *Journal of the Royal Geographical Society of London*, 43: 97-107.
- Wu, Wen-Hsin (吳文星) (1997): Tokyo Imperial University and the Commencement of Taiwan Academic Exploration (東京帝國大學與臺灣「學術探檢」之展開), in Huang, Fu-San (黃富三) et al., *An anthology commemorating a century of Taiwan historical research*〈臺灣史研究一百年：回顧與研究〉23-40, Taipei: Institute of Taiwan History Preparatory Office, Academia Sinica. (臺北：中央研究院臺灣史研究所籌備處)
- Wu, Yung-Hua (吳永華) (1999): *Plant Hunting in Formosa: A History of Botanical Exploration in Formosa in the Nineteenth Century*,〈臺灣植物探險：十九世紀西方人在臺灣採集植物的故事〉Taichung: Chen Hsing Publishing Co. (臺中：晨星出版社)

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