

Old Traces, New Links: Representation of Taiwan Baotu in OpenStreetMap

DH 2015 @ Sydney

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Being Digital

- process – accurate
 - transfer from physical artifacts to digital forms
- object – computational
 - extract entities from data for analysis
- use – transformative
 - disseminate and repurpose without restriction

“Facebook of the Dead”

- Transferring from a printed biography to a collection of image and text files
- Extracting personal names, interpersonal relationship, and social events from a text collection for social network analysis
- Representing the social networks in some new ways

反清復明

鄭成功 在雙腳腳底分別刺上「反清」、「清明」即可加入粉絲團

動態時報 關於 相片 朋友 529 更多

關於

順治皇帝提出你將歸順大清·你要在個人檔案新增這項資料嗎?

加到個人檔案

之前在大明國擔任御醫中軍部督

曾就讀南京國子監

現居臺灣臺南

相片 177

標註更多相片



朋友 529



近況 相片/影片 生活要事

在想些什麼?

鄭成功 · 施琅

在3分鐘前

施琅我剛剛看到你幫大清一統天下粉絲團按讚，這是怎麼回事?

讚 · 留言 · 分享

施琅 回將軍，應該是不小心按到

順治以及其他29人都說讚。

留言——

順治 · 鄭成功

在3小時前

朕已經下達遼東令，將山東至廣東的沿海居民內遷三十至五十里，並將房屋焚棄，看你還怎麼取得糧餉！速速投降吧！

讚 · 留言 · 分享

揆一 · 施琅以及其他5人都說讚

鄭成功 外國客戶最近才在說，透過臺灣當中介站，讓他們取得中國貨物更便利了呢~但是中國沿海的百姓聽說很不爽喔！這樣真的沒關係嗎? #無限期支持遼東令 讚 · 1

留言——

鄭成功

在3小時前

熱鬧遼東夏天還真涼，荷蘭人還滿會蓋城堡的嘛

讚 · 留言 · 分享

鄭經 · 陳永華以及其他5人都說讚

揆一 你被包圍兩個月看你還涼不涼得起來

荷蘭東印度公司 讚

鄭成功 怪我囉?

陳永華 讚

留言——

鄭成功轉貼自天地會臺灣粉絲團

三天前



管理秘密組織你一定要知道的13招，看完我驚呆了！尤其是第9招！

讚 · 留言 · 分享

19 個人都說讚

留言——

鄭經覺得陳永華的近況很讚

陳永華說請大家不要在公開場合叫我陳近南，我會覺得很困擾。

沈光文說孔廟工程樂捐款項還沒有交的月底一定要交啊！

施琅覺得大清一統天下粉絲團很讚

朱術桂我幫五個愛紀念的新房子完工了，準備來開個人厝趴了！

呂宋島華僑協會說移民臺灣國際代辦的連結真讚

沈光文在鄭經的相片上留言

19 3 個邀請等待回覆

建議的社團 查看全部社團

天地會臺灣粉絲團 已加入 + 加入

倒風內海賞 已加入 + 加入

https://facebook.com/NMTH100/Photos/10152803581877065/

Source: National Museum of Taiwan History

https://en.wikipedia.org/wiki/Koxinga

Koxinga - Wikipedia, the free encyclopedia

W Koxinga - Wikipedia, the free e... +

file:///Volumes/Earth/Users/trc/Desktop/DH2015/slides/resources/Koxinga.html

Google

Article Talk Read Edit View history Search

Koxinga

From Wikipedia, the free encyclopedia

This is a Chinese name; the family name is Zheng.

Koxinga or **Coxinga** (a westernization of Chinese: 國姓爺; pinyin: *Guóxìngyé*; literally: "Lord of the Imperial Surname") is the honorific of **Zheng Chenggong** (Chinese: 鄭成功; pinyin: *Zhèng Chénggōng*) a Chinese military leader who was born in Hirado, Japan to the Chinese merchant/pirate Zheng Zhilong and his Japanese wife Tagawa Matsu, and who died on Formosa.

A Ming loyalist and the chief

Zheng Sen
鄭森

1. Count of Zhongxiao
2. Marquis of Weiyuan
3. Duke of Zhang
4. Prince of Yanping



Taiwan Baotu in OpenStreetMap

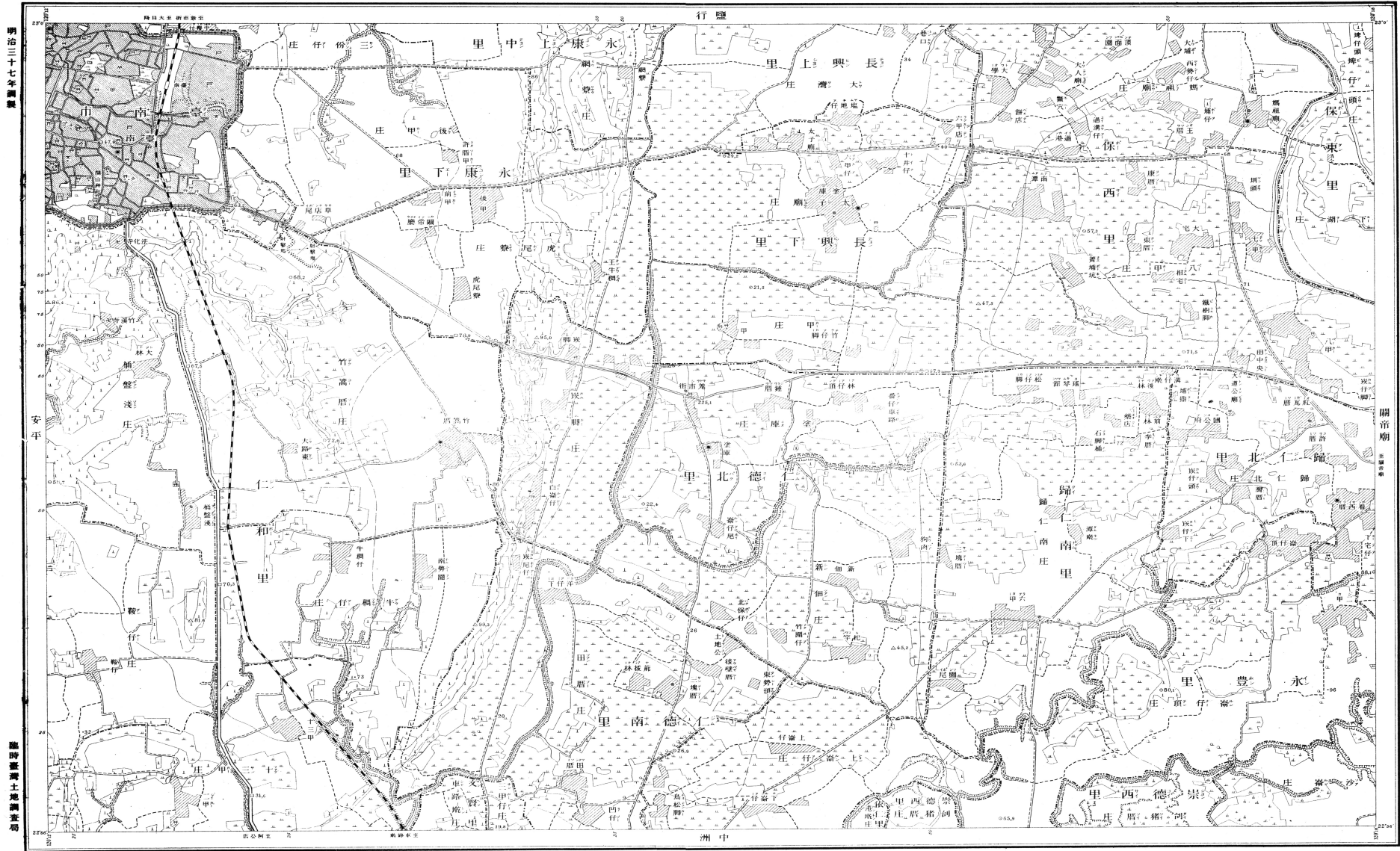
- Taiwan Baotu (台灣堡圖) , 1906, 1920
 - a set of 457 topographic maps of Taiwan, when the island was ruled by Japan
 - incl. place names, land use, transportation networks, landmarks, and other information
- OpenStreetMap (OSM), 2006 –
 - **free software** with collaborative mapping data
 - a mendable tool kit for one's own mapping needs
- Taiwan Baotu in OSM
 - accurate, computational, and **transformative**

Scanned Historical Map

南 臺

399

1906年臺灣全圖(局部)



明治三十七年製

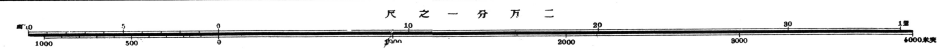
安平

臨時臺灣土地調查局

德國原圖臺南十一號

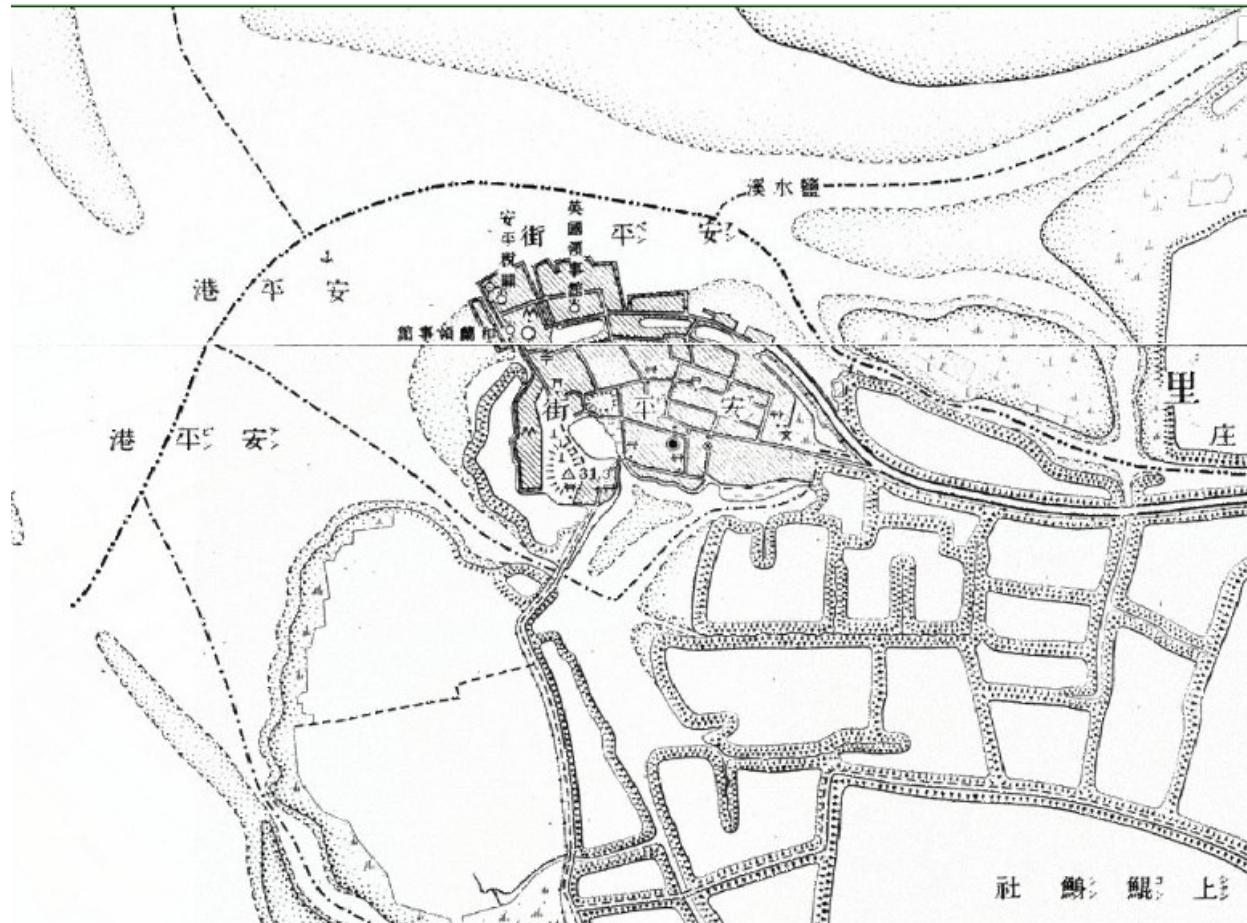
高麗、基隆嶼、中等單位(1:25,000)表示

戶部七十四號門西內補光圖加大大
 社報新日日灣臺監督者版出 版再日一月二年四正大
 部太大山青人配支者表代右



里西德崇 里西德崇 里西德崇 里西德崇 里西德崇 里西德崇
 里北德仁 里北德仁 里北德仁 里北德仁 里北德仁 里北德仁
 里中上康永 里中上康永 里中上康永 里中上康永 里中上康永 里中上康永
 里西德崇 里西德崇 里西德崇 里西德崇 里西德崇 里西德崇

Overlaying Approach (alpha=1)



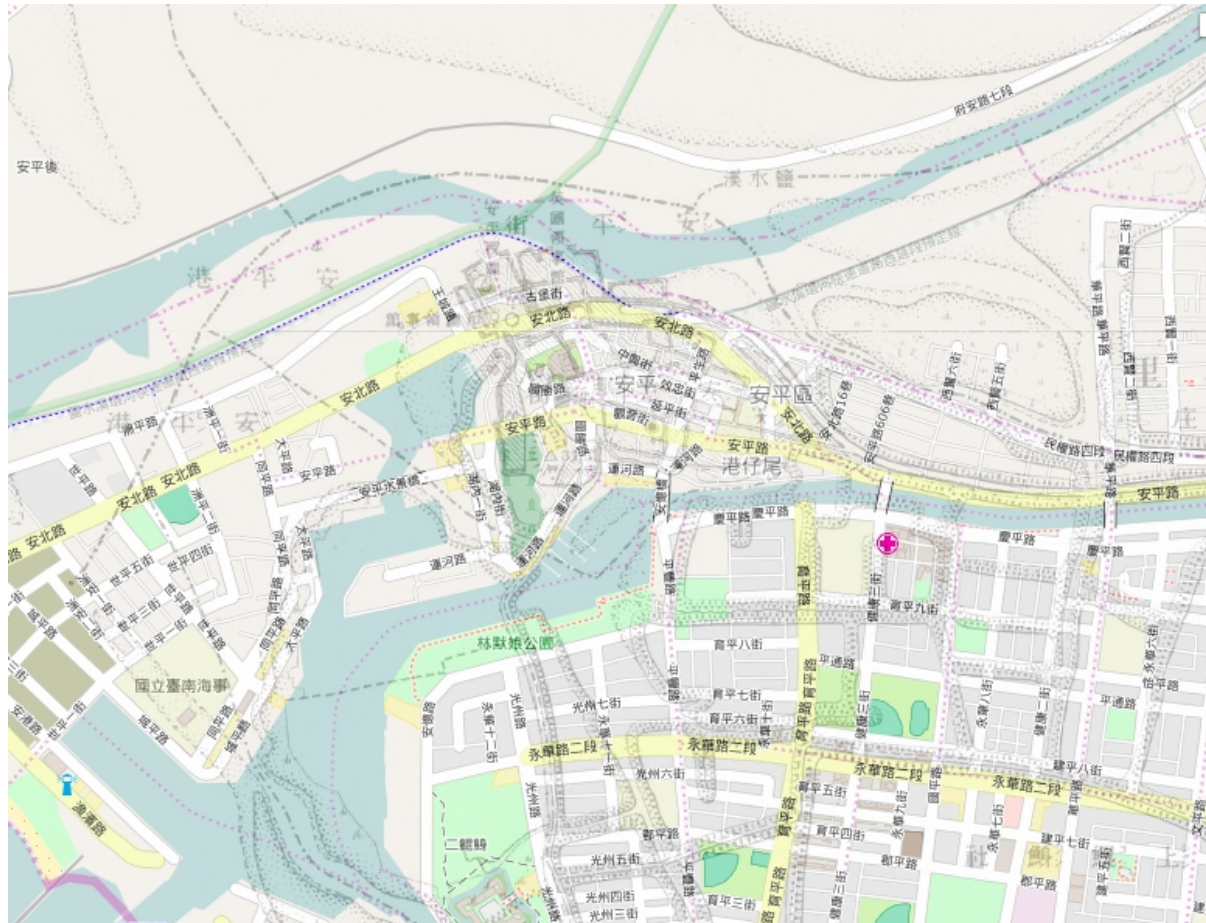
Overlaying Approach (alpha=0.6)



Overlaying Approach (alpha=0.4)



Overlaying Approach (alpha=0.2)



Overlaying Approach (alpha=0)



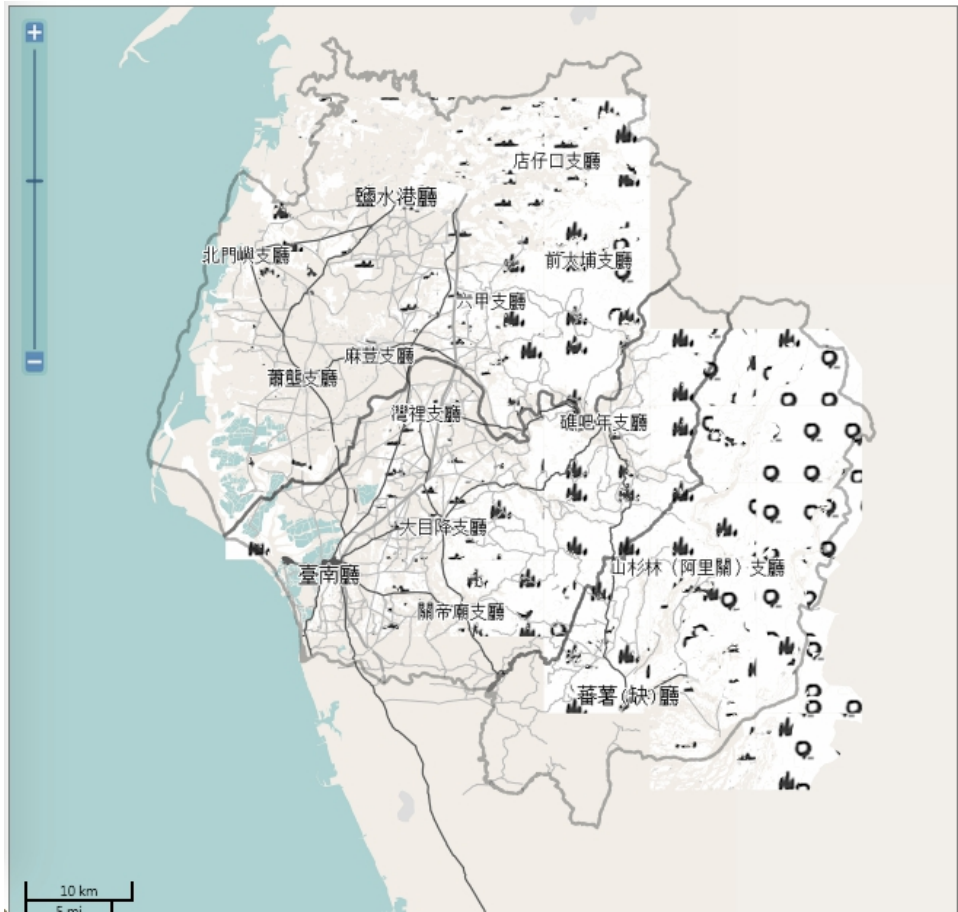
Comparison on Tainan Station Area



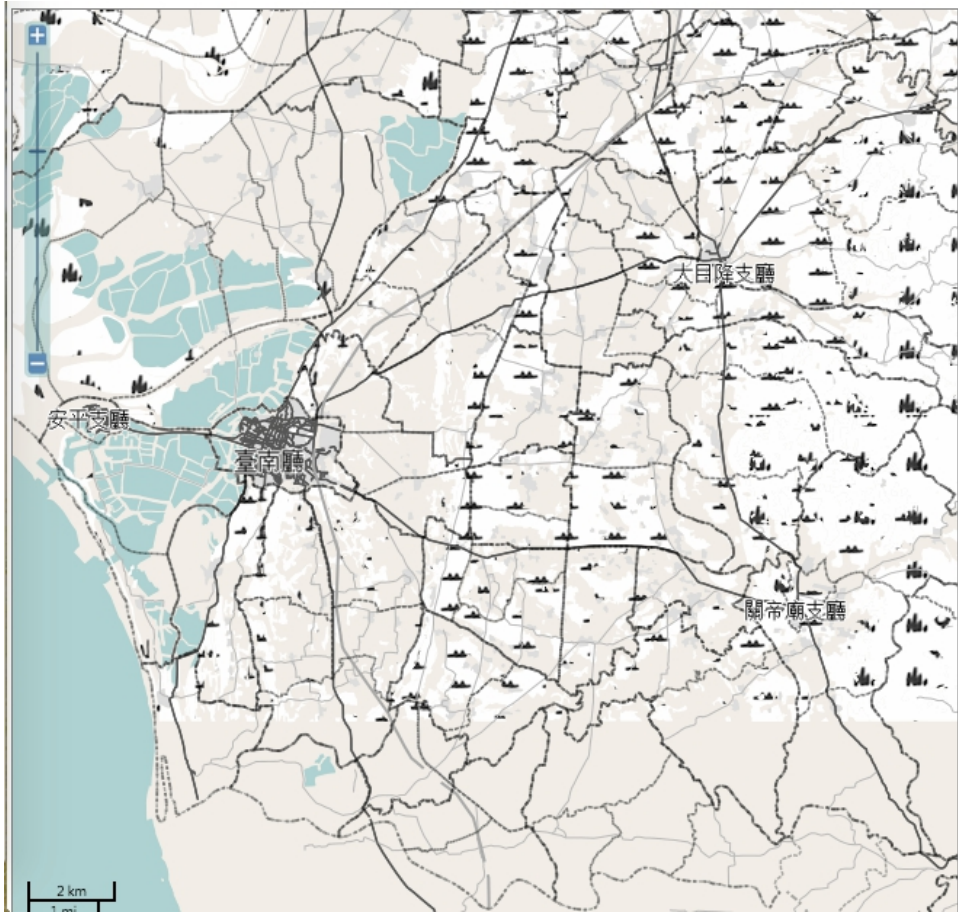
Comparison on Tainan Station Area



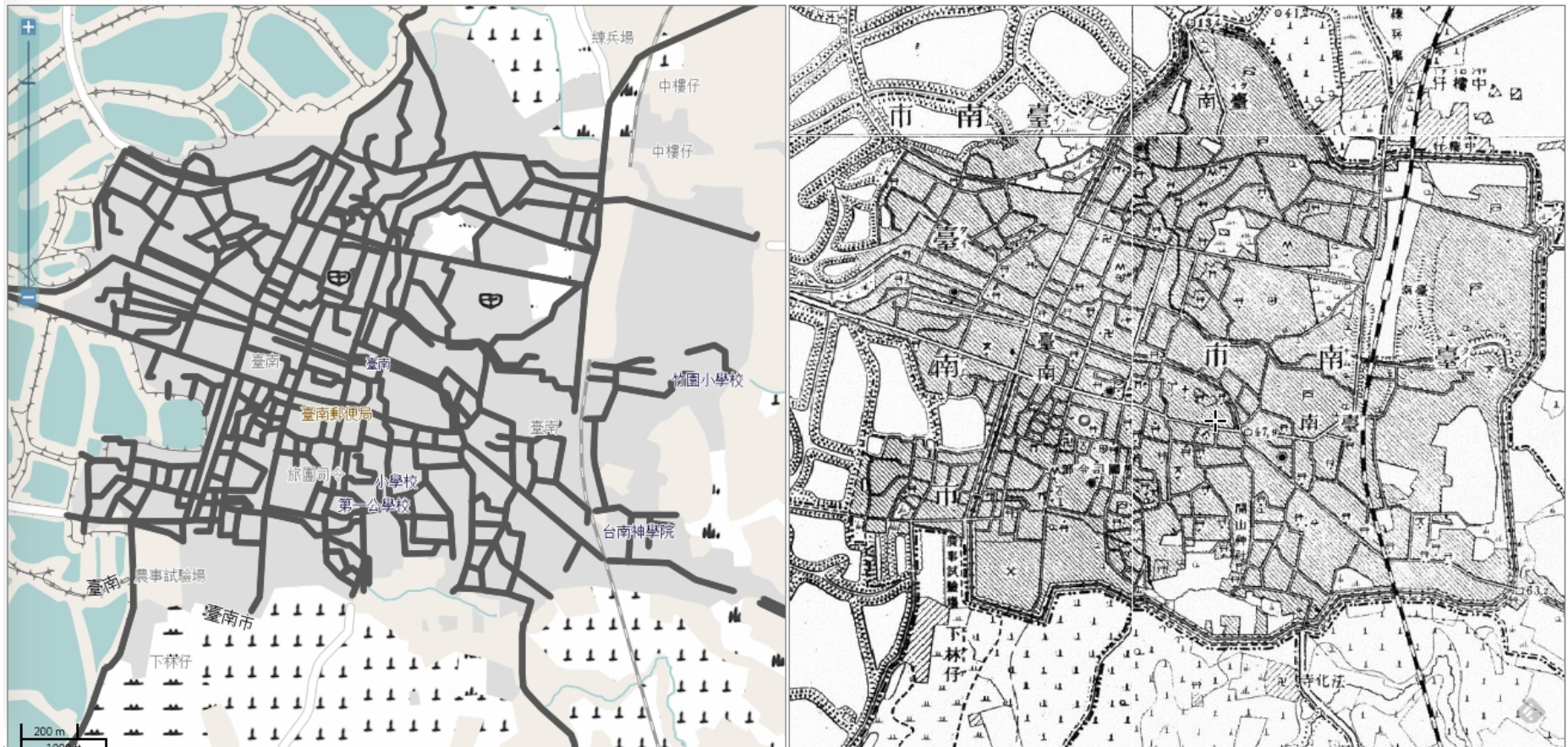
Redrawing Approach



Redrawing Approach



Redrawing Approach

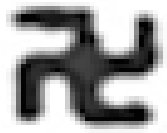


Why OpenStreetMap

- Brief introduction
 - A collaborative project
 - A map built by mappers (contributors) all over the world
 - Free/Open Source
- Why we use it
 - Complete architecture (storing, visualizing, rendering, etc.)
 - Flexible data format (XML)
 - Customizable map data and style
 - User-defined feature tags

Mapping Features

- Redefining features already existed in OpenStreetMap



佛寺



amenity:place_to_worship
religion:buddhist



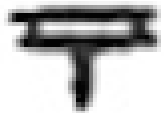
醫院



amenity:hospital



- Features defined by ourselves



郵政
電信局



amenity: post_telecom

An Annotation Interface

Nodes

Lines

- 土堤
- 支流
- 鐵路
- 一等
- 不明路
- 小徑
- 小路
- 城郭

Polygons

Convert/Import
Mapping features

Map data ▾ **Sidebar**

Leaflet | Ma

Map labels: 北門支廳, 鹽水港廳, 店仔口支廳, 前太埔支廳, 大甲支廳, 麻荳支廳, 蕭壠支廳, 灣裡支廳, 確厝仔支廳, 大目降支廳, 臺南廳, 關帝廟支廳, 山杉林(阿里關)支廳, 蕃薯(缺)廳

General Information

The image shows a screenshot of a web-based map application. On the left is a sidebar titled "Nodes" with a list of categories, each with a checkbox. The "西洋教堂" (Western Church) category is checked. The main map area shows a street map with a red dot indicating a selected location. An information popup window is open over this location, displaying details for the "長老會太平境教會" (Elder's Church of Taiping). The popup has three tabs: "Information", "Coordinates", and "Notes", with "Information" selected. The map also features a "Map data" dropdown and a "Sidebar" button at the bottom left. The Leaflet logo is visible in the bottom right corner of the map area.

Nodes

- 醫院
- 陸軍所轄
- 陸軍兵營
- 獨立樹
- 墳墓
- 水準點
- 三角圖根點
- 孤竹
- 法院及分所
- 神祠
- 寺院
- 西洋教堂
- 監獄署
- 警官派出所
- 郵政電信局
- 支廳
- 地名
- 廳
- 街庄役場
- 學校
- 郵局
- 電信局

Information

NAME: 長老會太平境教會
CLASS: 4
PAGE: 399
BEGINDATE: 1902/9/13
SECT: 基督教長老會
amenity: place_of_worship
religion: christian
building: church
name: 長老會太平境教會

Users Can Add Notes (in Markdown)

The screenshot shows a web application interface for adding notes to a map record. The interface is divided into several sections:

- Left Sidebar:** A list of categories with checkboxes. The '學校' (School) category is checked. Other categories include 醫院, 陸軍所轄, 陸軍兵營, 獨立樹, 墳墓, 水準點, 三角圖根點, 孤竹, 法院及分所, 神祠, 寺院, 西洋教堂, 監獄署, 警官派出所, 郵政電信局, 支廳, 地名, 廳, 街庄役場, 郵局, and 電信局.
- Map:** A map showing a location in Tainan, Taiwan. The map includes labels for '臺南市', '下寮仔', '農事試驗場', '第一學校', '台南學院', '樹園學校', '中樓仔', '中樓仔', '練兵場', and '三份仔庄'. A red pin is placed on the map, and a 'Submit' button is visible below the note form.
- Add New Note Form:** A form titled 'Add New Note' with the following content:
 - Text: "You can add additional notes to this record. (markdown script supported)"
 - Text input field: "[news at 2013-09-22] (http://www.epochtimes.com/b5/13/9/22/n3969879.htm), [Introduction on wikipedia] (https://zh.wikipedia.org/wiki/%E5%8E%9F%E5%AF%B6%E5%85%AC%E5%AD%B8%E6%A0%A1%E6%9C%AC%E9%A4%A8)"
 - Text input field: "seven +2= 9"
 - Text input field: "marchuang41@gmail.com"
 - Submit button: "Submit"

All Notes


Nodes

- 醫院
- 陸軍所轄
- 陸軍兵營
- 獨立樹
- 墳墓
- 水準點
- 三角圖根點
- 孤竹
- 法院及分所
- 神祠
- 寺院
- 西洋教堂
- 監獄署
- 警官派出所
- 郵政電信局
- 支廳
- 地名
- 廳
- 街庄役場
- 學校
- 郵局
- 電信局

Map data ▾ Sidebar

Show all notes

marchuang41@gmail.com
3 seconds ago



marchuang41@gmail.com
2 minutes ago
[news at 2013-09-22, Introduction on wikipedia](#)

Add New Note

臺南市 農事試驗場 臺南市 下寮仔 臺南市 第一學校 臺南市 校園學校 台南學院

Leaflet | Map data © OpenStreetMap contributors, Imagery © Mapbox

Summary

- An approach to preserving historical artifacts
- Representing historical maps as modern maps
- Connecting history-related information together

Old Traces, New Links: Representation of Taiwan Baotu in OpenStreetMap

<http://140.109.161.36/baotu>

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