



可用於地景紀錄的開放儲存庫

Open Repositories for Landscape Documentations

文化與自然地景紀錄工作坊 Cultural and Natural Landscape Documentation Workshop

2021-12-22

莊庭瑞 Tyng-Ruey Chuang trc@iis.sinica.edu.tw

資訊科學研究所·資訊科技創新研究中心·人文社會科學研究中心(地理資訊科學研究專題中心)中央研究院 Academia Sinica









新店第一公墓建公園落空 改工業區惹議

(2017-03-19)「新店第一公墓從清乾隆年間就是墓區,總面積七.六公頃,民政局自一〇五年一月十九日動工,分兩期遷葬,聲稱將改造為森林公園,成為「新店之肺」;第一期完工的四.一公頃(一萬二五〇四坪)是乙種工業區,經發局將分四個單元徵求開發廠商,租期廿年,期滿得續租十年,以三次為限,總計五十年。」

https://news.ltn.com.tw/news/local/paper/1087151

愛研究台灣古墓碑 2 老外籲保存 (2016-04-05)

「奧利華(左起)、艾琳達和友人坐在墓前休息,對墳墓無台灣人的傳統忌諱。(記者翁聿煌攝)」 https://news.ltn.com.tw/news/local/paper/975924











專訪 LIVE 阿北熱血轉播 | 即時新聞 | 20140328 | 蘋果日報 http://www.appledaily.com.tw/realtimenews/article/new/20140328/368726/

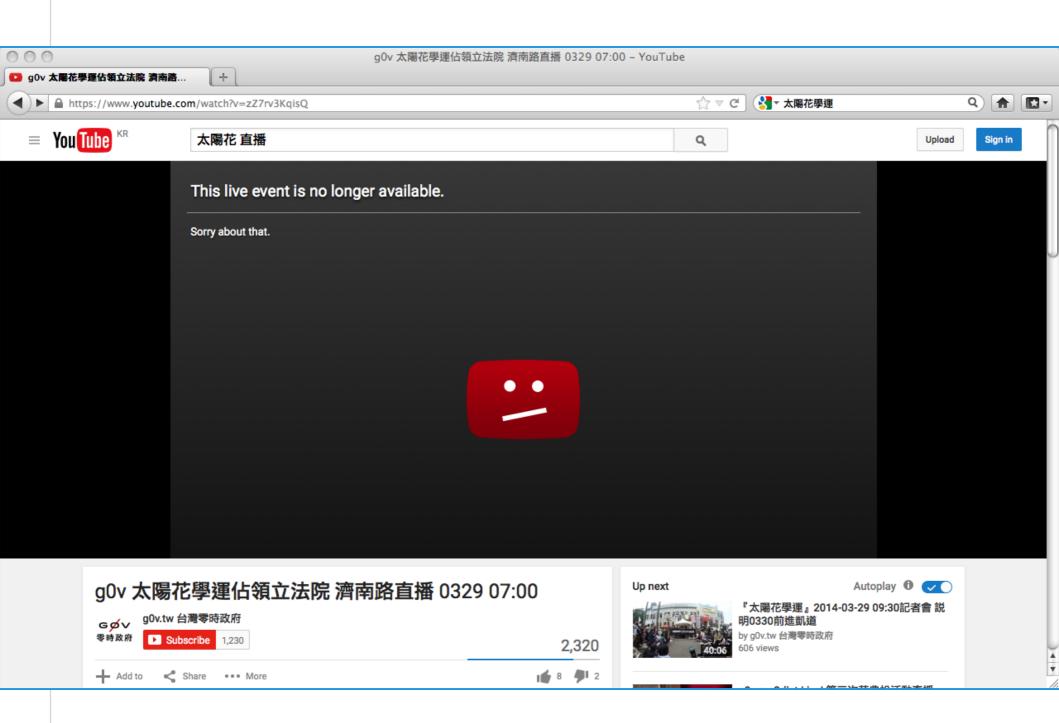




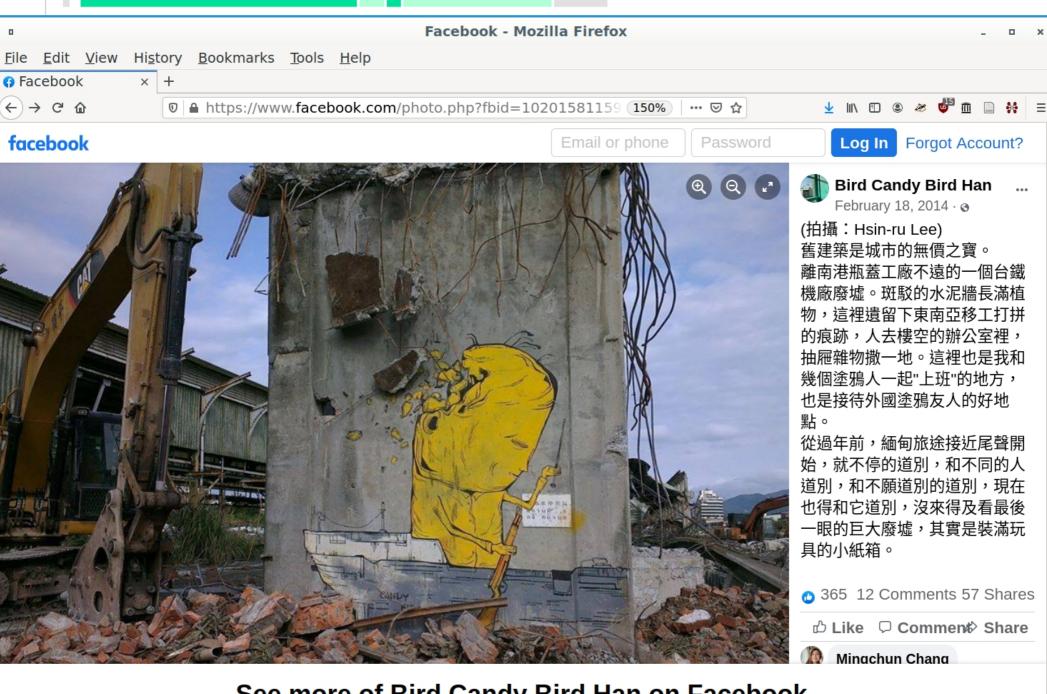
"Occupy Taiwan Legislature by VOA (8)" by Voice of America https://commons.wikimedia.org/wiki/File:Occupy_Taiwan_Legislature_by_VOA_(8).jpg



https://www.youtube.com/watch?v=uYcAQ5JS8G0



https://www.youtube.com/watch?v=zZ7rv3KqisQ



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(←) → C' 10



COVID-19 影像與敘述 **COVID-19 Images and Stories**

▲ 上傳圖片 Upload ▲ 圖片庫 Pictures 登入與註冊 Login in/Sign up

日期 Date: 2020-03-21

地點 Location: 22.99446,120.21262

台南市中西區 台南市中西區

記錄者 Recorder: trc

授權 Authorization: 照片授權: ◎ • CC BY 4.0 (trc)

描述 Description:

疫期心情

2020-03-28

前天晚上到研究院的餐廳吃飯,服務員跟用餐的人數差不多, 總共大概二、三十人。冷冷清清。居家檢疫、居家隔離不再是 陌生的語詞;有故事有細節,來自體驗中的同事朋友。遠距工 作與線上會議是常態。通勤上班必備口罩,有人選擇開車,比 較自在。生活緩慢轉向,不熟悉也要適應。

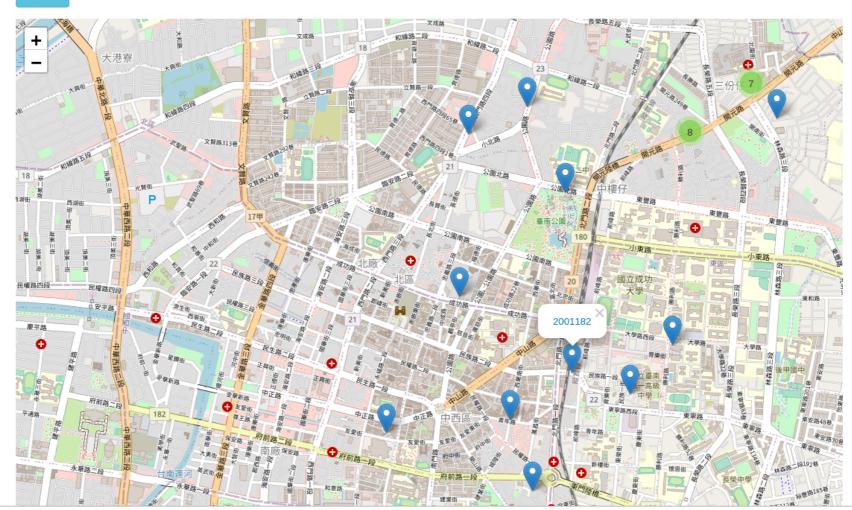
電話會議中,在歐洲的與會者好幾天沒出門了。有位說他自己 應該得了病毒,從身體狀況和人際網絡,他如此推斷。大家請 他保重。認識的人當中,首位得到病毒,另位這樣說了。我頓 了一下,的確他也是我所認識的第一位感染者。病毒若是透過 網路傳遞,他將是我的RO。

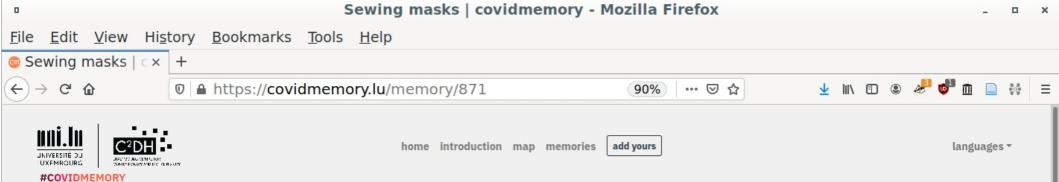
四月初的「面對面」工作會議現在當然是不用開了。改成四天 舉行四次線上會議,一次兩小時。這國際組織的執委會,成員



看照片原始檔 view original file







Sewing masks

Sun, Apr 12, 2020 — by Made by Fredke

Steinfort, Capellen, Luxembourg







△ Beitrag hochladen Beiträge ansehen Visualisierungen Postkarten Über uns Français Italiano

← Previous item

Next item →

Auch Statuen wollen geschützt sein

OBJEKT

Titel

Auch Statuen wollen geschützt sein

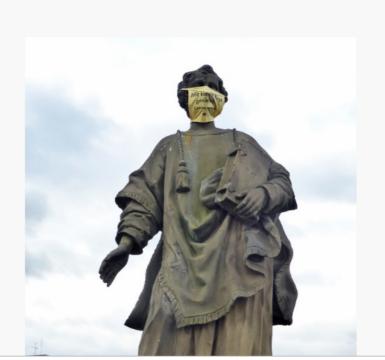
Zusammenfassung

Aktion der Stadt Würzburg: "Mit klarem Kopf geniessen – Corona vermeiden" – Alte Mainbrücke

Datum January 16, 2021

Thema public health

Sprache de



@ occurrence 2001 × +

← → ℃ む

0 ≜ https://th.covid19.commons.tw/occurrence/2001309/ 170% ··· ☑ ☆

◆ 上傳圖片 Upload ◆ 圖片庫 Pictures

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COVID-19 影像與敘述 **COVID-19 Images and Stories**

日期 Date:

2020-04-12

1 2 3 4

地點 Location:

23.56781,120.30464

雲林縣北港鎮 內門鴨母寮興安宮

記錄者 Recorder: 小強

授權 Authorization:

照片授權: ◎ (1) CC BY 4.0 (小強)

描述 Description:

疫情當下,大多進香團取消或延期,但仍有進香 團維持進香之路,甚至也因為這樣,難得重現了 最傳統的進香方式。內門鴨母寮興安宮以香擔挑 著媽祖的方式到北港進香。

標籤 Tags:



看照片原始檔 view original file





研究資料寄存所 depositar https://data.depositar.io/

眾人皆可使用的開放儲存庫 An Open Repository for All

- 「研究資料寄存所」 (depositar) 功能簡介
- (文化與自然) 地景紀錄可視為研究資料

 - 研究資料的 FAIR 原則:
 - Findable, Accessible, Interoperable, Reusable
 可被找到、可被取用、可相互操作、可再次使用



一份在研究資料寄存所上的資料集

https://data.depositar.io/en/dataset/coral-reef-sesoko

要點 highlight

- 關於資料集與專案的長段落描述
- (寄存的)資料 data(外部的)資源 resources以及關於他們的長段落描述
- 標籤 (tags) 以及 Wikidata 關鍵字 (keywords)
- 基本資訊 Basic information
- 時空資訊 Spatio-temporal information
- 管理資訊 Management information
- 資料授權條款 Licenses
- 資料引用格式 Citation snippets
- 資料取用端點 Data endpoints
 - JSON-API
 - RDF 串例式

Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan

Followers



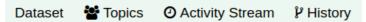




Ocean Biodiversity Listening Project

Project Website The ocean is full of sounds that are generated from geophysical events, marine animals, and human activities. By using a hydrophone (a microphone for underwater... read

more



Coral Reef Soundscapes off Sesoko Island, Okinawa, Japan



This dataset is an archive of audio data of shallow-water and upper-mesophotic coral reefs off Sesoko Island, Okinawa, Japan. Python codes to visualize the audio data were also provided in a notebook based on Google Colab.

Recording Locations

Three long-term recording sites were established since May 2017. Site A (N26.635° E127.865°) is located on the southeast coast of Sesoko Island and in front of the Sesoko Station of the University of the Ryukyus. The water depth is 1.5 m. Site B (N26.665° E127.869°) is located at the bottom of a reef slope on the north of Sesoko Island and the west of Toguchi Port. The water depth is 20 m. Site C (N26.670° E127.866°) is located on a nearly flat plateau to the north of Sesoko Island and the west of Toguchi Port. The water depth is 40 m.

Acoustic Recorders

<u>AUSOMS-mini stereo recorders</u> (AquaSound, Kobe, Japan) were used to collect underwater sounds. From May 2017 to July 2018, six AUSOMS-mini recorders were used: 14-0106, 14-0107, 15-0106, 15-0107, 15-0109, 15-0110.

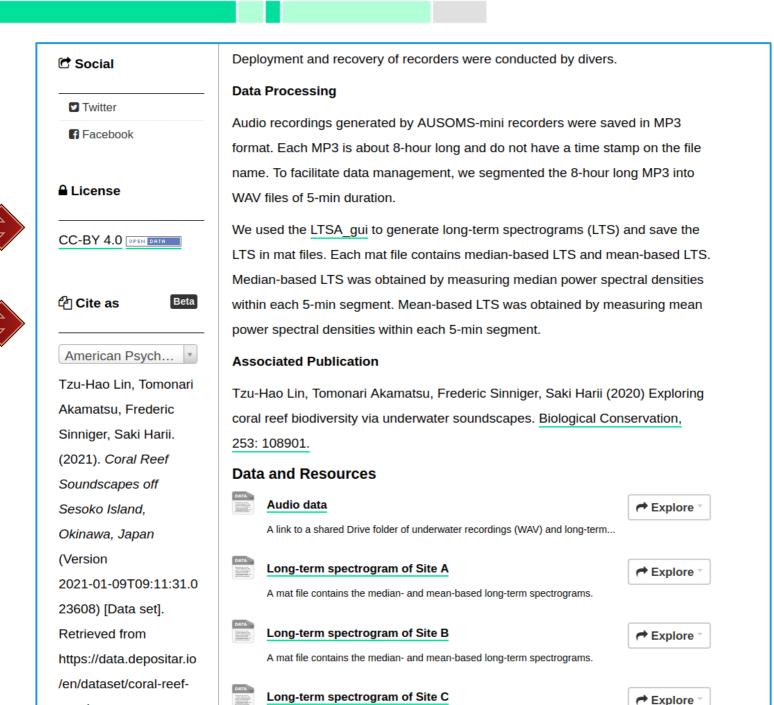
Configuration of Audio Recording

(1) Duty Cycle: continuous. (2) Sampling Rate: 44.1kHz. (3) Channels: 2. (4) File Format: MP3 (128 kbps). (5) Audio Gain: High. (6) High Pass Filter: Off.

Field Deployment

At each recording site, one AUSOMS-mini stereo recorder was fixed to a cement





A mat file contains the median- and mean-based long-term spectrograms.

sesoko

Cut to clipboard









1 Other Access

The information on this page (the dataset metadata) is also available in these formats:

</>JSON-API

RDF serializations

based on DCAT 2: Beta

| JSON-LD | Turtle | XML |
|---------|--------|-----|
| | | |

via the CKAN API ☑

Tags



Wikidata Keywords

soundscape coral reef



Basic Information

| Data Type | Source code |
|-----------|---|
| | Audiovisual data |
| | Scientific and statistical data formats |
| Language | English (eng) |

Spatio-temporal Information

| Temporal Resolution | Daily |
|------------------------|--------------------|
| Start Time | 2017-05 |
| End Time | 2018-07 |
| Spatial Coverage | show more |
| X.min | 127.8553390572779 |
| X.max | 127.88097380893306 |
| Y.min | 26.630362980584657 |
| Y.max | 26.68047930832328 |

Management Information

| Author | Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinniger, Saki Harii |
|-----------------------|--|
| Contact Person | Tzu-Hao Lin |









Map tiles & Data by OpenStreetMap

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② 其他存取方式

此頁面上的資訊 (資料 集之後設資料) 也提供 以下格式:

</>JSON-API

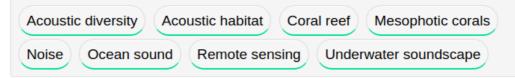
RDF 串列化輸出 (修改 自 DCAT 2): Beta

自 DCAT 2):

| √>JSON-LD | Turtle | XML |
|-----------|--------|-----|
|-----------|--------|-----|

經由 CKAN API ☑

標籤



Wikidata 關鍵字

聲景 珊瑚礁

基本資訊

| 資料類型 | 原始碼影音資料科學與統計資料 | |
|------|--|---|
| 語言 | 英文 (eng) | |
| | | • |

時空資訊

| 時間解析度 | 日 |
|------------|--------------------|
| 起始時間 | 2017-05 |
| 結束時間 | 2018-07 |
| 空間範圍 | 顯示更多 |
| 空間範圍.X.min | 127.8553390572779 |
| 空間範圍.X.max | 127.88097380893306 |
| 空間範圍.Y.min | 26.630362980584657 |
| 空間範圍.Y.max | 26.68047930832328 |

管理資訊

| 產製者 | Tzu-Hao Lin, Tomonari Akamatsu, Frederic Sinniger, Saki Harii |
|-----|--|
| 聯絡人 | Tzu-Hao Lin |



Biological Conservation 253 (2021) 10890



Contents lists available at ScienceDirect

Biological Conservation

journal homepage: www.elsevier.com/locate/biocon





Exploring coral reef biodiversity via underwater soundscapes

Tzu-Hao Lin a,*, Tomonari Akamatsu b,**, Frederic Sinniger , Saki Harii C

- " Biodiversity Research Center, Academia Sinica, Taiwan
- b The Ocean Policy Research Institute, The Sasakawa Peace Foundation, Japan
- ^c Tropical Biosphere Research Center, University of Ryukyus, Japan

ARTICLEINEO

Keywords: Ocean sound Mesophotic corals Remote sensing Noise

Acoustic diversit

ABSTRACT

Information on biodiversity is essential to evaluate the ecological status of coral reefs. Sounds produced by reefassociated organisms have been used as a biodiversity indicator. However, the interference from abiotic sounds and the lack of a comprehensive audio library have impeded effective evaluation. This study investigated the application of underwater soundscapes as a remote-sensing method to detect biological and anthropogenic activities. Using techniques including the visualization of long-duration recordings, source separation, and clustering, soundscapes were separated into sounds of anthropogenic and biological sources. Our results revealed the dynamics of biological sounds among coral reefs off Sesoko Island, Okinawa, Japan, Biological sounds were much more prominent in shallow-water reefs than in upper-mesophotic reefs, but their spectral features and compositions differed. The shallow-water reefs were dominated by broadband sounds of crustaceans and low-frequency transient fish calls, whereas the upper-mesophotic reefs were characterized by a diverse array of fish choruses and transient sounds. We also discovered that shipping noise beavily interfered with the soundscapes from the upper-mesophotic reefs and represented an invisible threat to life in the low-light habitat. The applied techniques of soundscape information retrieval revealed the distinct ecological status of coral reefs and the behavior change of sound-producing organisms in high temporal resolution. Implementation of soundscape monitoring can generate ecological information on habitat quality, reef biodiversity, human activities, and their interactions. Global collaboration on underwater soundscapes will establish a data-informed platform and help stakeholders assess the resilience of coral reefs to environmental and anthropogenic stressors.

1. Introduction

Marine ecosystems provide irreplaceable services and currently face significant pressures due to climate change, human disturbance, and excessive use of marine resources. The United Nations has recognized these threats and placed the conservation of marine ecosystems as one of its sustainable development goals (UN General Assembly, 2015). Coral reefs support various social and economic activities, such as fisheries, coastal protection, and tourism, of many maritime tropical and subtropical nations (Moberg and Folke, 1999; Barbier, 2017; Spalding et al., 2017; Woodhead et al., 2019). These benefits rely on the abundant biodiversity in coral reefs. However, coral reefs have undergone recurrent high-frequency bleaching episodes over the past 20 years due to increased sea surface temperatures (Hughes et al., 2017, 2018). Therefore, detailed information on the spatiotemporal changing patterns of marine biodiversity and interactions with human activities is crucial for

the conservation management of coral reefs.

Biodiversity monitoring in coral reefs remains challenging, partially due to the distinct reef environments and their unique fish assemblages (Pearman et al., 2018; Dumalagan et al., 2019). A comprehensive and long-term assessment of reef biodiversity, environmental characteristics, and human activities may not be feasible because of limited resources for observation and survey opportunities, especially for developing regions or remote reefs. An underwater sensing system capable of monitoring the changing patterns of marine biodiversity, with the ability to diagnose potential risks due to environmental and anthropogenic stressors, is required for establishing management strategies of coral reefs and for providing alerts to the early-warming signs of ecosystem changes (Schmeller et al., 2017; Obura et al., 2019).

A potential solution for such an underwater sensing platform is through monitoring ocean sounds. One autonomous recorder can store long-duration audio recordings, with improved time resolution of

https://doi.org/10.1016/j.biocon.2020.108901

Received 18 June 2020; Received in revised form 23 November 2020; Accepted 27 November 2020 Available online 10 December 2020

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Biological Conservation 253 (2021) 108901

h in mesophotic s. However, the n shallow-water ound-producing . Although basic remains scant, ill improve our lerstudied deeps multiple mes gers to prioritiz

surement of th n shallow-wate horus may be which has bee may be part! the coral reefs an et al., 1999) water recordin g winter. Thes be easily quanti t may influenc

systems and ca er soundscapes larvae, listen to d settlement to (Vermeij et al the recruitmen hances the ree erfere with the d the acousti he resilience o Mooney, 2015

> to shipping ac uency sounds i ries only briefl photic reefs of of a bay and ar propagation of ctivities signifi esophotic reefs. r the available soniferous aniocean temperteriorate due to on. Therefore, it silience of coral nagement plans ed here and the vstem functions

> > m the lon-

t from the longployment of an rk methods, and als. This study ous acoustic reref soundscapes. With the recent development of underwater technology and audio information retrieval techniques, a soundscape monitoring network can generate numerous acoustic data that contain ecological information in multiple dimensions, including the quality of the acoustic habitat, community of sound-producing organisms, and potential effects due to human activities. The generated information will allow managers and stakeholders to conduct a more comprehensive assessment of ecosystem

Data availability

The audio dataset used in preparing this paper are available from the corresponding authors on reasonable request. A dataset of the LTS is available on depositar (

https://data.depositar.io/en/dataset/coral-reef-sesoko

fore, an underwater soundscape monitoring network would enable the integration of noise management into spatiotemporal planning and risk assessment of ecosystem-level consequences.

Data availability

The audio dataset used in preparing this paper are available from the corresponding authors on reasonable request. A dataset of the LTS is available on depositar (https://data.depositar.io/en/dataset/coral-ree [seesako]

CRediT authorship contribution statement

Tzu-Hao Lin: Conceptualization, Methodology, Software, Validation, Data curation, Formal analysis, Resources, Writing—original draft. Tomonari Akamatsu: Conceptualization, Methodology, Resources, Data curation, Writing—reviewing and editing, Funding acquisition. Frederic Sinniger. Conceptualization, Visualization, Investigation, Data curation, Writing—reviewing and editing. Saki Harii: Conceptualization, Investigation, Writing—reviewing and editing, Funding



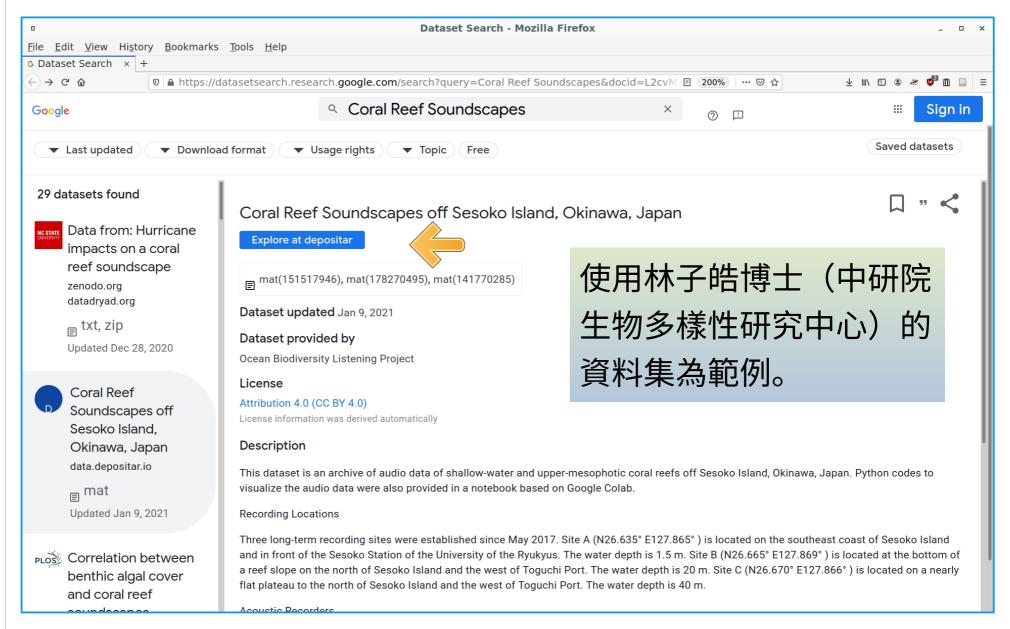
^{*} Correspondence to: T.-H. Lin, Biodiversity Research Center, Academia Sinica, 128 Academia Road, Sec. 2, Nankang, Taipei 11529, Taiwan.

^{**} Correspondence to: T. Akamatsu, The Ocean Policy Research Institute, The Sasakawa Peace Foundation, 1-15-16 Toranomon, Minato, Tokyo 105-8524, Japan.

E-mail addresses lintzuhao@eate.sinica.edu.tw (T.-H. Lin). akamatsu.tom@email.com (T. Akamatsu).

Data Discovery via Google Dataset Search

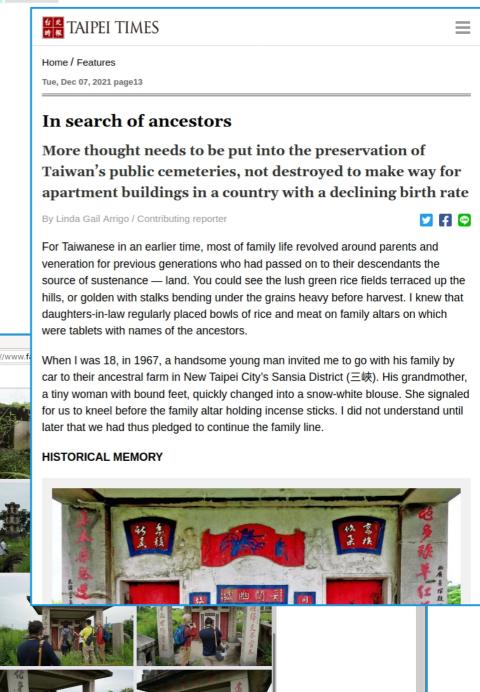
https://datasetsearch.research.google.com/search?query=Coral Reef Soundscapes



以 2021-10-14 南山墓地的導覽為例

- 紀錄者眾,但所紀錄的媒材紛雜且散落各處
- 透過開放的儲存庫,可協力編寫紀錄(目錄)
 - 關於該導覽的背景文件
 - 於該導覽所紀錄的媒材(照片、影音等)
 - 事後關於該導覽的書寫
 - 事後對於該導覽的重建 (e.g. Virtual Tour)
- https://data.depositar.io/en/organization/nanshan_2021-10-14





Project Title

← → ♂ ŵ

R0010088

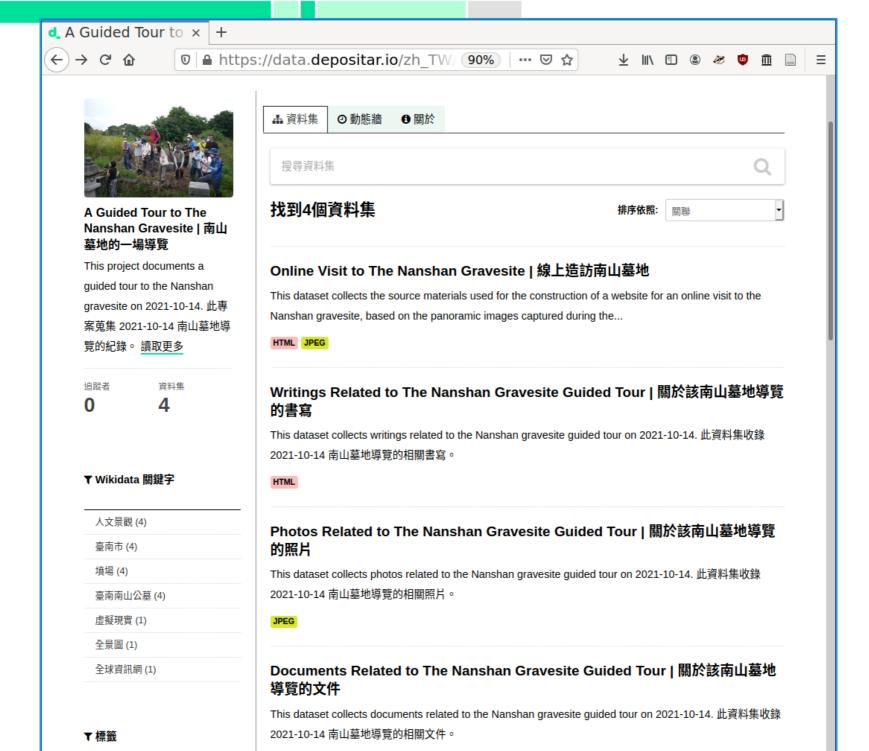
R0010080

R0010077

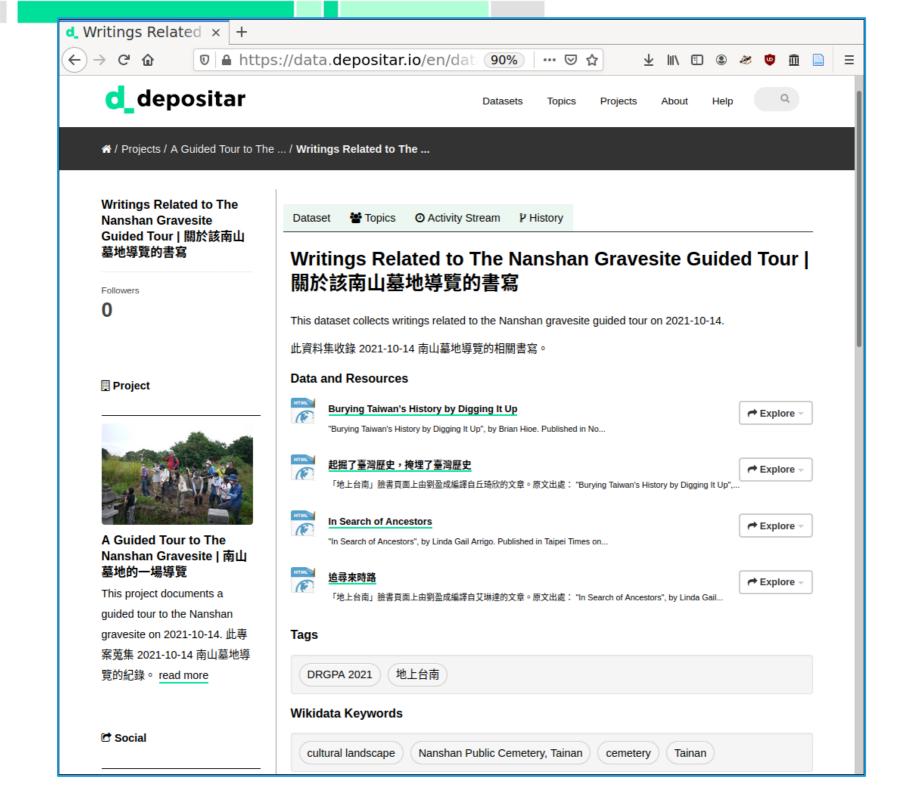
R0010070 R0010069 R0010068 R0010067 R0010066 R0010065

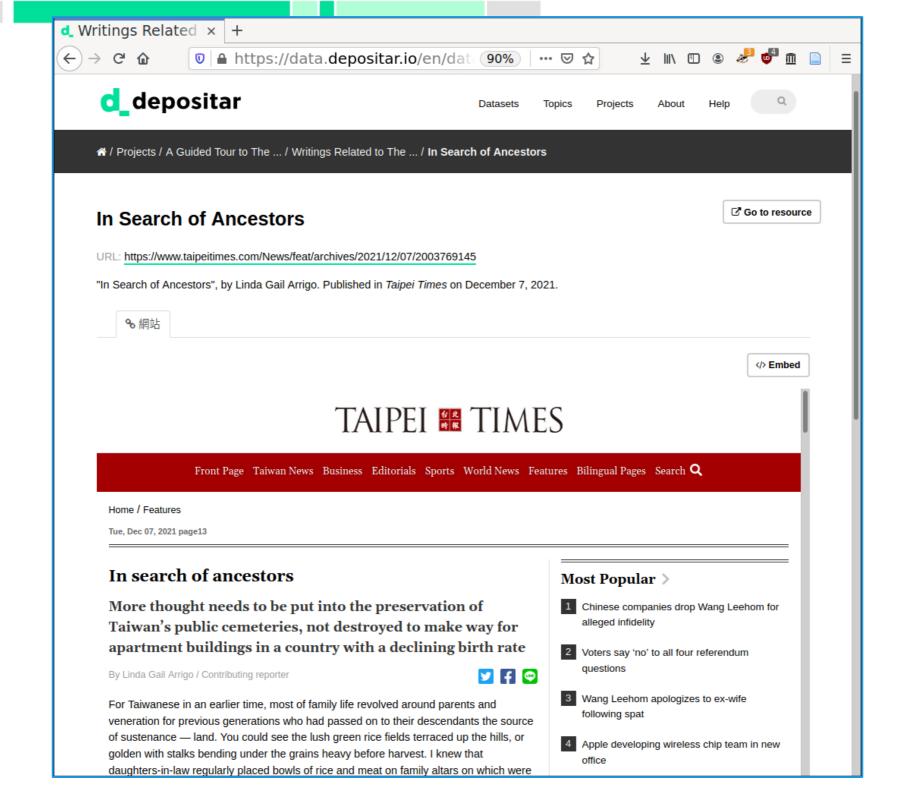
R0010062

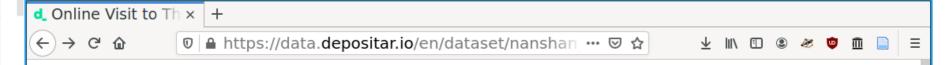
R0010058



HTML







Online Visit to The Nanshan Gravesite |線上造訪南山墓地

Followers

0

Project



A Guided Tour to The Nanshan Gravesite | 南山墓 地的一場導覽

This project documents a guided tour to the Nanshan gravesite on 2021-10-14. 此專案蒐集 2021-10-14 南山墓地導覽的紀錄。 read more

Dataset

☑ Activity Stream

☑ History

Online Visit to The Nanshan Gravesite | 線 上造訪南山墓地

This dataset collects the source materials used for the construction of a website for an online visit to the Nanshan gravesite, based on the panoramic images captured during the guided tour on 2021-10-14. The Marzipano tool is used to create a navigable 360° view of the gravesite.

此資料集收錄 2021-10-14 南山墓地導覽時所拍攝的全景影像,並用這些全景影像製作一個線上造訪南山墓地的網站。使用 Marzipano 工具以建立可走動的 360°場景。

Data and Resources



Website: Visit to Nanshan Gravesite | 網站:造訪南山墓地



A website for an online visit to the Nanshan gravesite, based on the...



Zipped File of The Website | 整個網站壓縮檔案



The website, as a zipped file, for an online visit to the Nanshan gravesite,...



Panoramic Images of Nanshan Gravesite | 南山墓地的全景影像



Panoramic images captured during the guided tour to the Nanshan gravesite on...

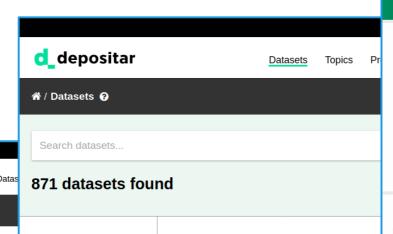


Marzipano Tool Video Tutorial | Marzipano 工具的影音教學



A YouTube tutorial about the Marzipano Tool. Marzipano 工具 YouTube 教學。

https://data.depositar.io/



1 What are Projects?

☆ / Projects

d depositar

Projects are used to create, manage and publish collections of datasets. Users can have different roles within a Project, depending on their level of authorisation to create, edit and

publish.

Search projects...

131 projects four



高雄美濃雙溪橋上 下游疏濬工程溪流 環境變化監測 (Monitoring the environmental changes caused by the Dredging in the SHUANG XI River, Meinong, Kaohsiung, Taiwan)

無人載具航拍監測紀 錄高雄美濃雙溪橋上 下游疏濬工程的環境 變化與衝擊 (UAV mapping the

Filter by location



Map tiles & Data by OpenStreetMap ☑, under CC BY-SA C

Filter by Time Clear



▼ Wikidata Keywords

Taiiiang Inner Sea (51)

Deep-sea soundscapes of Japan

This dataset is an archive of acoustic data ass soundscapes of Japan. Recording Locations F Japan were recorded. This...

新竹左岸生態情報地圖及環境教育組 圖與導覽計畫資料

本資料集保存計畫產出的生態情報圖層資料, 導覽計畫文件與相關點位、路線盤點、計畫期間 料。

KMZ gpkg KML PDF CSV

水環境改善計畫第2-3批次新竹市頭 置圖套疊

此資料集為新竹市環保局提供的水環境改善計劃 工程平面配置图,虚理成可使用Google Fath P





國際合用的研究資料管理實用指南

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研究資料寄存所 | depositar

115 台北市南港區 中央研究院 資訊科學研究所

Institute of Information Science, Academia Sinica 128 Academia Road, Section 2 Nangang, Taipei 115 Taiwan





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The *depositar* is a collaboration at the Institute of Information Science, the Research Center for Information Technology Innovation, and the Research Center for Humanities and Social Sciences (GIS Center) in Academia Sinica, Taiwan. The project has been supported, in part, by grants from Taiwan's Ministry of Science and Technology.

The depositar project team: T-R Chuang, M-S Ho, C-J Lee, Monica Y-C Mu & Ally C-H Wang.

「研究資料寄存所」是中央研究院資訊科學研究所、資訊科技創新研究中心、人文社會科學研究中心 (地理資訊科學研究專題中心)的協作專案,部份經費來自台灣科技部的專題研究計畫。 研究資料寄存所計畫成員:莊庭瑞、何明諠、李承鑫、穆昱佳、王家薰。

