

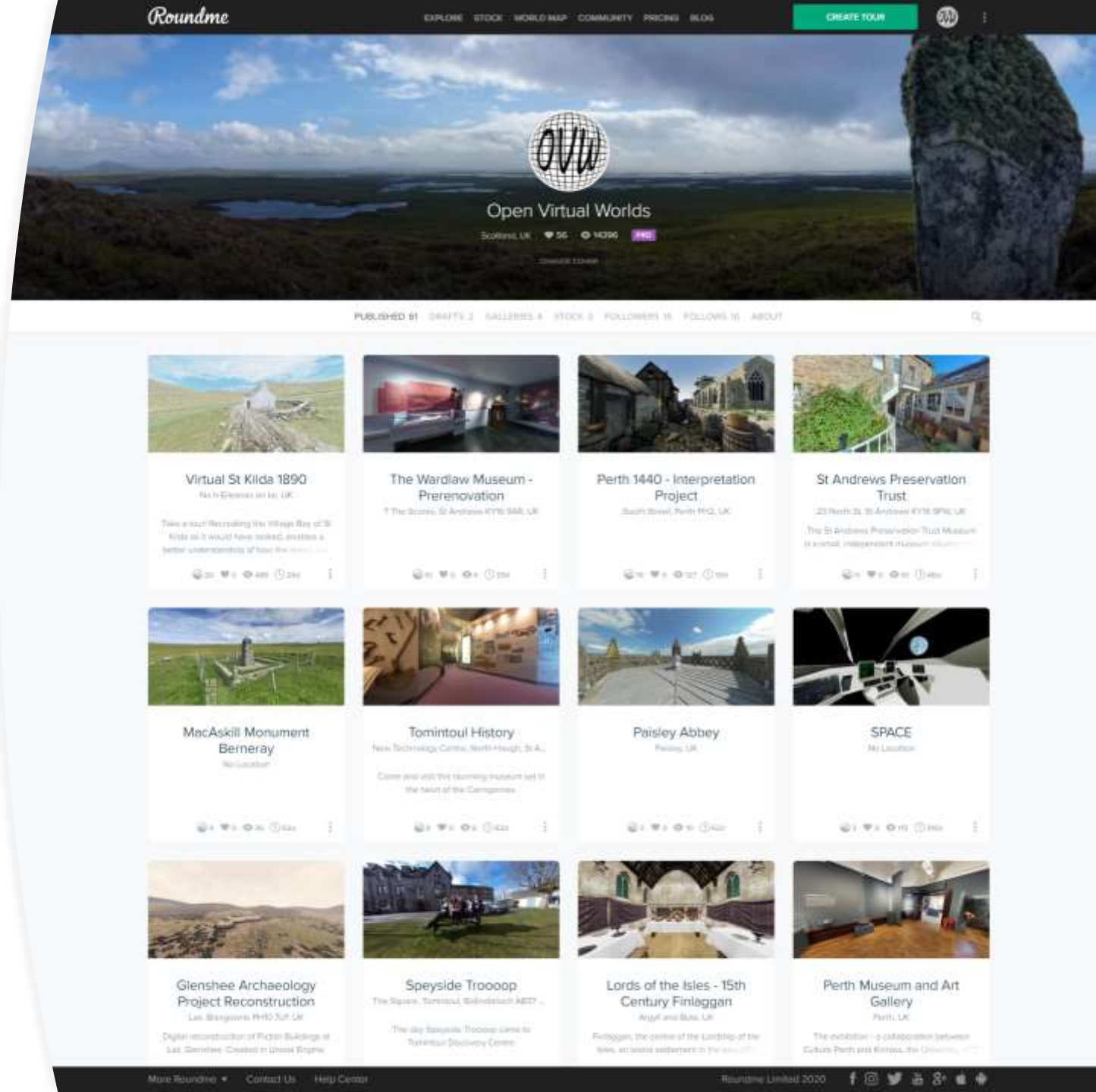


Virtual Tours

How to make
Heritage Journeys

Introduction and overview

- **Motivation and history**
- What is a photosphere
- Goals and objectives
- How to make a tour
- How to share a tour
- What about video?
- Sources and resources



Motivation

- Museums
- National Museum of Scotland

- Landscapes
- North Uist 360





North Uist 360

20x 360° panoramas from 6x archaeological sites around the island of North Uist, produced by a collaboration between Taigh Chearsabhagh Museum & Art Gallery and the University of St Andrews.

Learn more about the project [here](#).

Barpa nam Feannag

Where is home to the Barpa Nam Feannag chambered cairn. Situated in the north of the island on a rocky hillside 400 yards from Samann NW Loch, it appears as an irregular mound of loose stones 160 ft in length, 45 ft in width at its east end, tapering to 15 ft at the west.



Barpa Langais

Langais is home to the Barpa Langais burial cairn, which sits atop Beinn Langais with its entrance facing south east, and the Pùdub Phinn stone circle, situated on a plateau on the southern slope of the hill.

Udal

In the Udal, the archaeologist Iain Crawford and his team excavated a site that was visible in the landscape and identified in historical documents and oral tradition. The site lies among four large sand stones, some 40ft high.

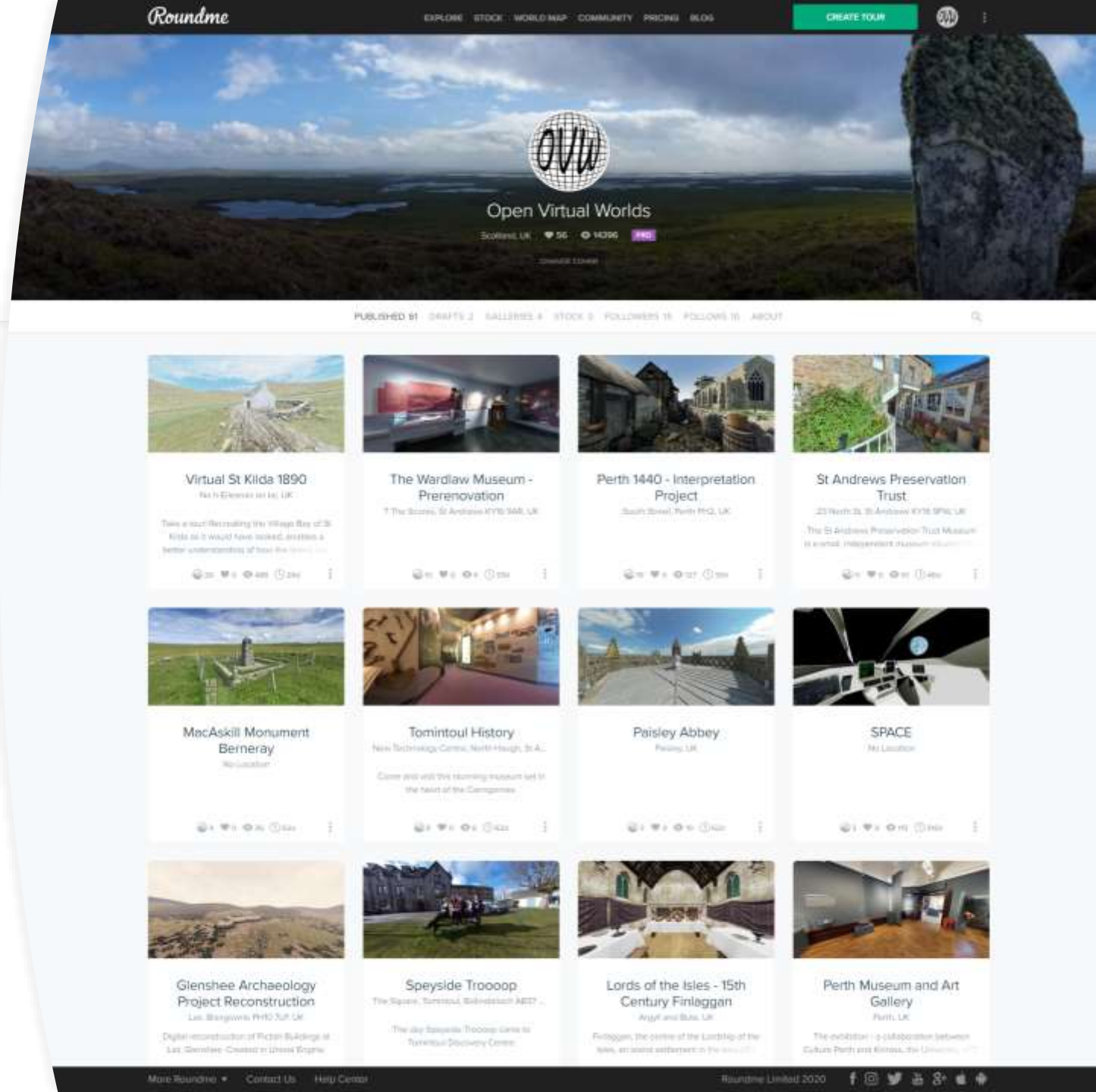




History

Introduction and overview

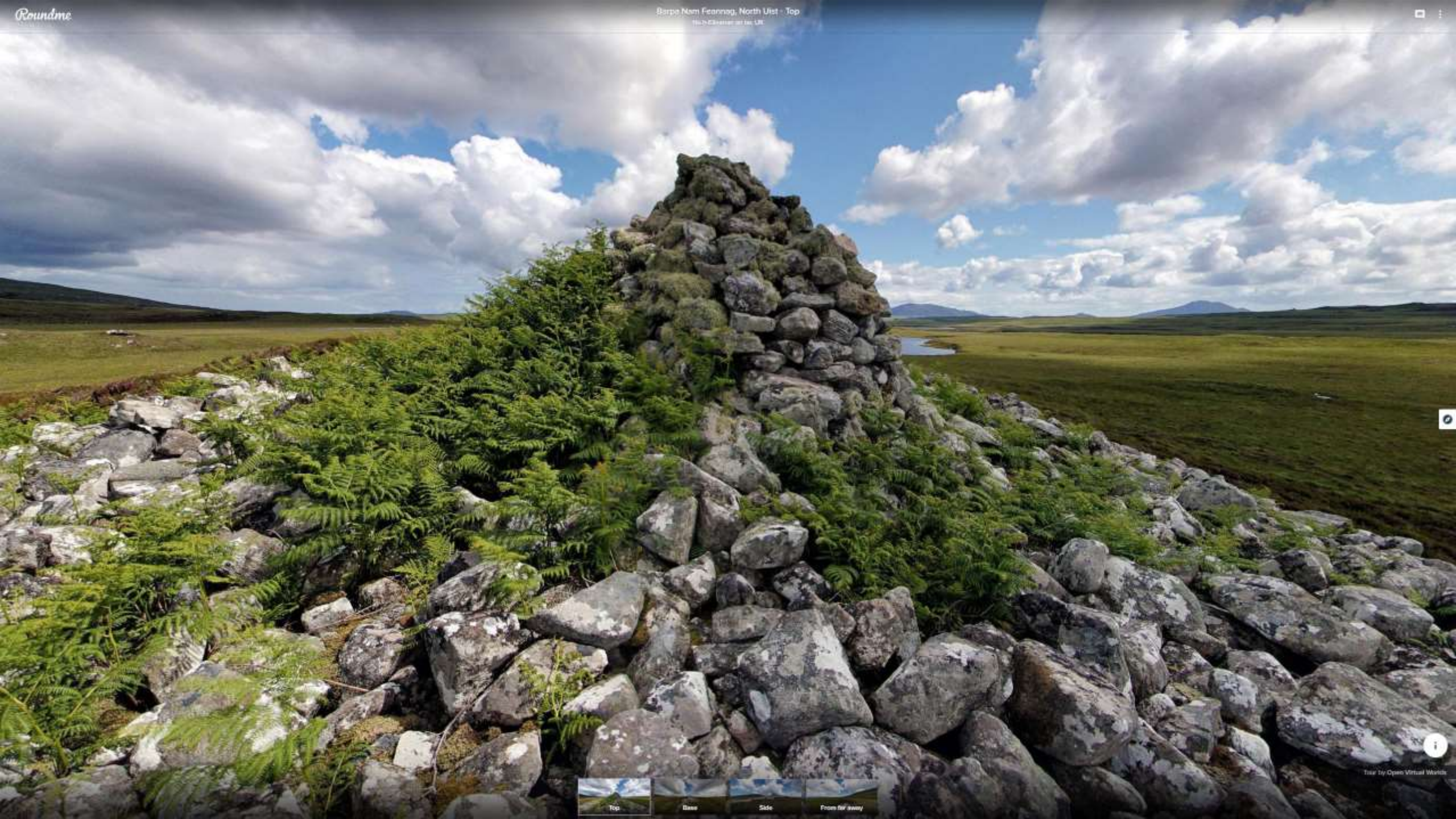
- Motivation and history 3
- **What is a photosphere 3**
- Goals and objectives 3
- How to make a tour 15
- How to share a tour 9
- What about video? 3
- Sources and resources 3



What is a photosphere?

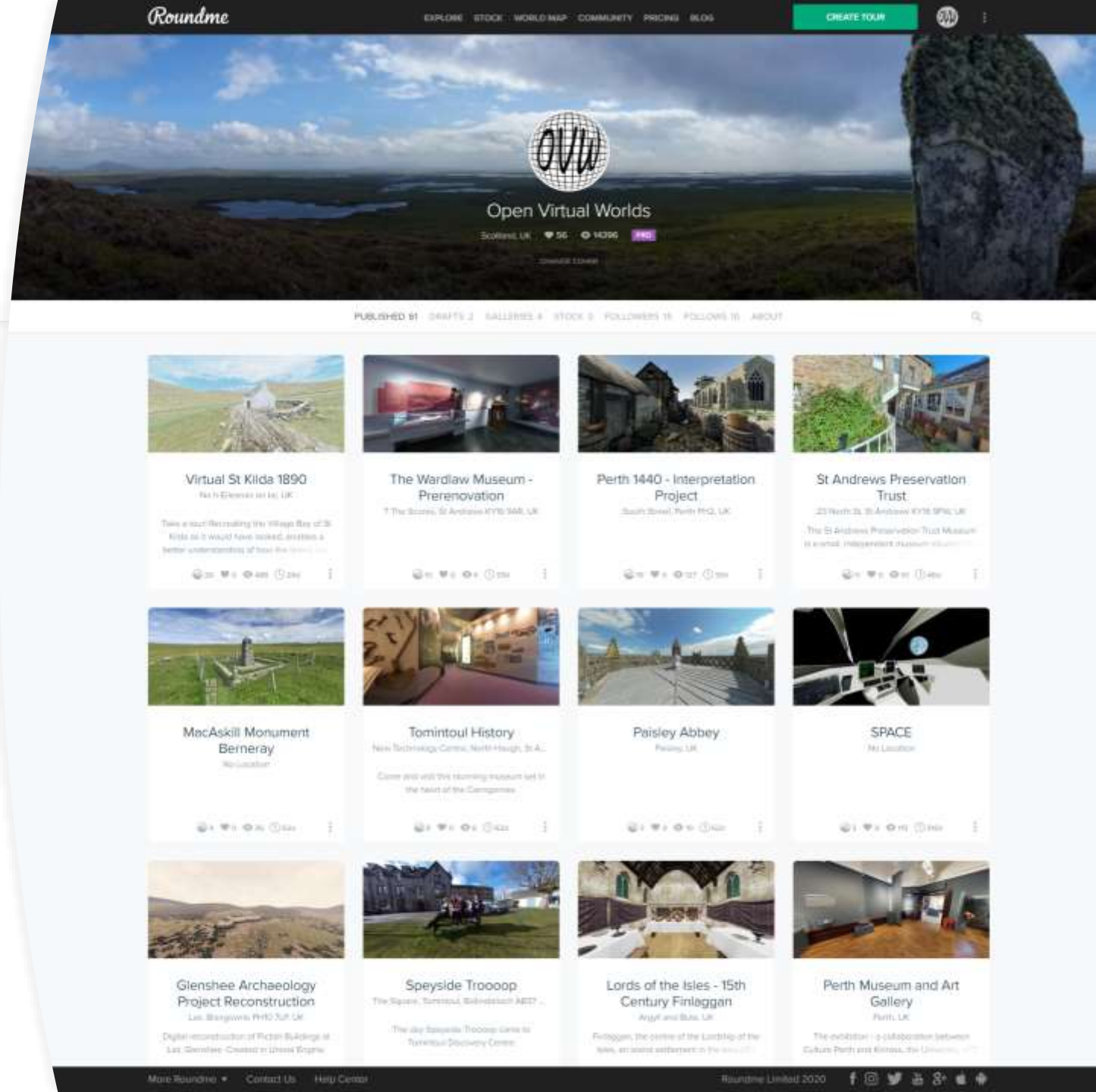
- Imagine yourself in the middle of an inside out globe
- Projection
- Resolution
- Metadata





Introduction and overview

- Motivation and history
- What is a photosphere
- **Goals and objectives**
- How to make a tour
- How to share a tour
- What about video?
- Sources and resources



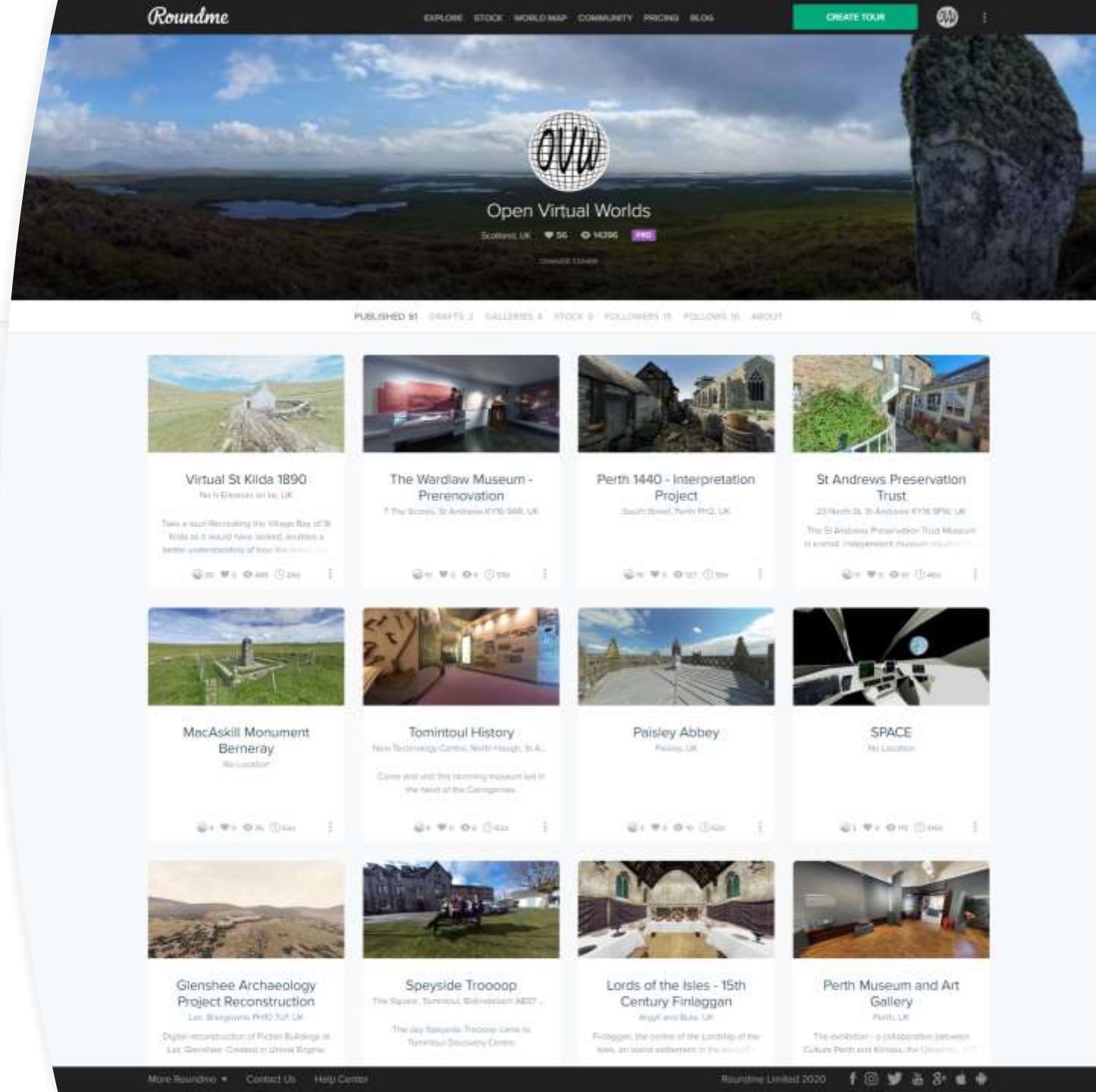


What are the goals?

- Who is the virtual tour aimed at?
- What do you want to communicate?
- How long should the tour take to complete?
- Is there a call to action?

Introduction and overview

- Motivation and history
- What is a photosphere
- Goals and objectives
- **How to make a tour**
- How to share a tour
- What about video?
- Sources and resources





How to make a tour

- Scene selections
- Plan hotspots and interactives
- What equipment and software
- Shoot and process photographs
- Assemble Tour



Scene selection

- Main choice is where to put the camera
 - Think in three dimensions
 - What is the subject?
 - What is the context?
- Lighting: even natural light is best
- Avoid reflective surfaces where possible

Narrative, hotspots, and interactions

- Depending on the platform
- Title and name for the photosphere
 - Description and meta data associated
- Audio commentary
- Visual hot spots
- Audio hotspots

Equipment and software

- Mobile phone, piece of string or stick
- 360 camera, tripod or monopod
- Camera, clicker, tripod, panoramic head
- Google street view
- Hugin
- Roundme
- CUPIDO



Shooting a photosphere

- With a mobile phone
- With a 360 camera and monopod
- With a camera and panoramic head

Cameras: familiar with Ricoh Theta, Insta 360

- **Download the mobile app**
- **Automatic and manual controls**
- **Configure ISO to 100**
- **Resolution around 6000*3000**
- **Optional HDR**
- **About £400**



- Use Google Street View App
- Keep phone in same location
- Keep phone at same height
- Rotate and tilt around the lens
- Follow the phones guide points
- Shoot down, centre, up then rotate round
- Unst Boat Haven
 - [On roundme](#)
 - [On google maps](#)

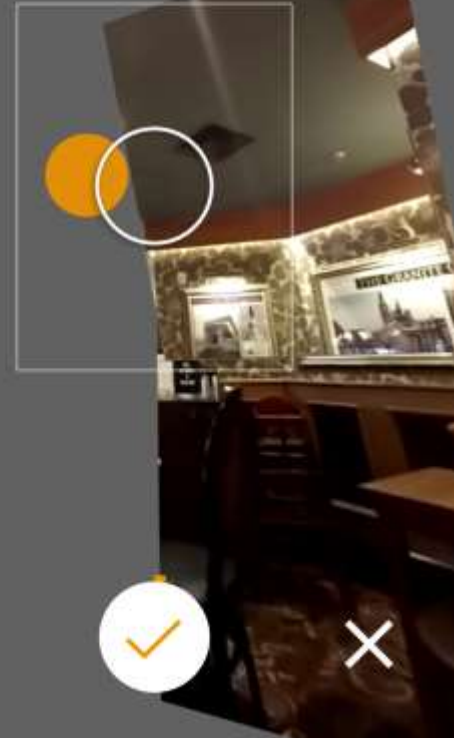


Mobile Phone or Tablet

Mobile and Tablet



Point the camera at the dot



Panoramic Tripod Head

- Configure camera using manual settings
- Use a tripod and panoramic head
- Make sure the set up is level
- Configure so the camera rotates horizontally where the light converges in the lens
- Configure so the camera rotates vertically around the point where the light converges
- Check that there is no parralax
- Ensure each photo overlaps
- Use HDR if there is wide variation in light



Hugin Overview

- Collect your images
 - Check Camera properties
 - Tie your control points
 - Run the optimiser
 - Equirectangular projection
 - Run the stitcher
-
- <http://hugin.sourceforge.net/tutorials/index.shtml>





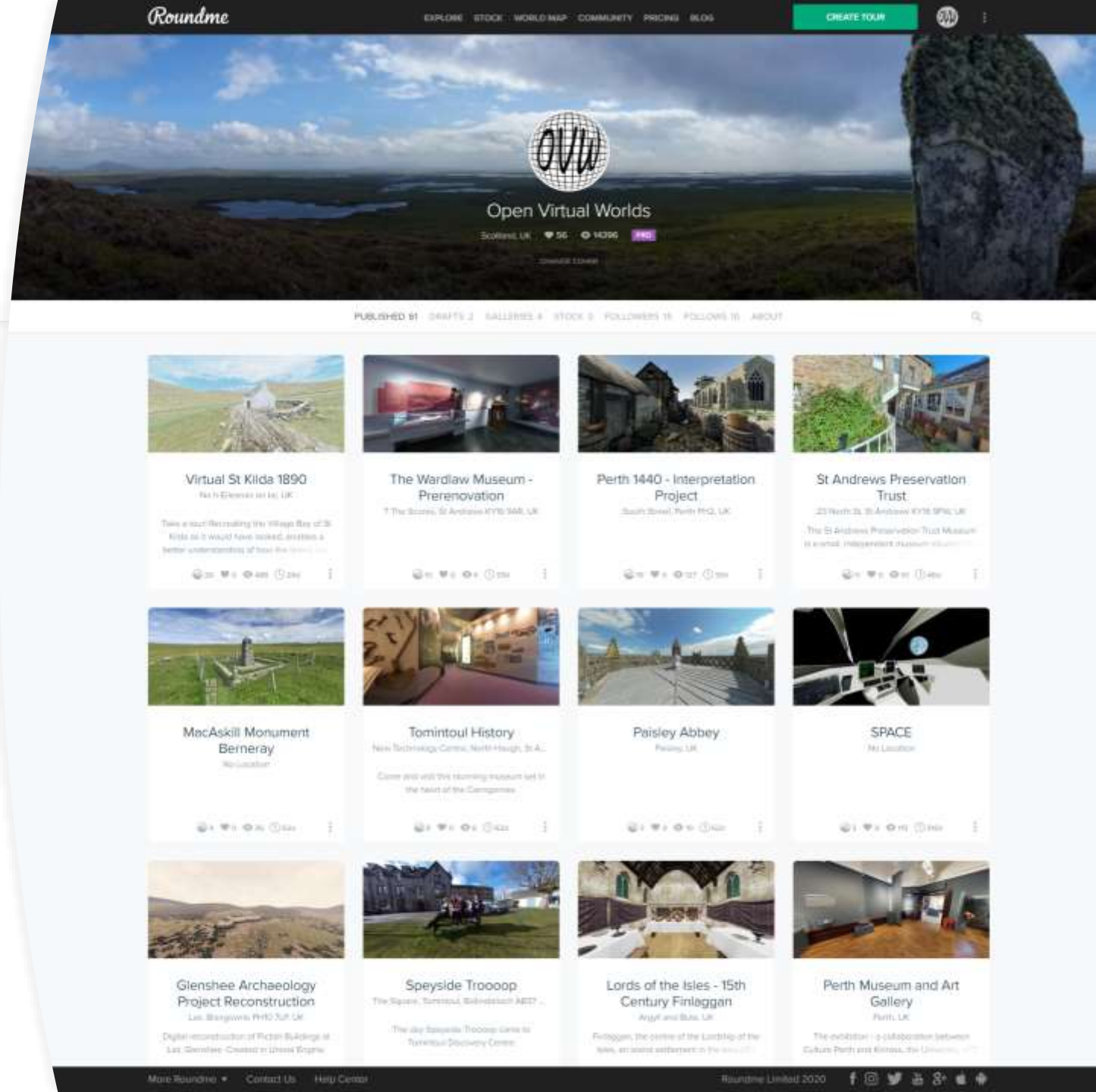


Compare the three methods

- Mobile App: High quality and resolution possible.
- 360 Camera: Quick to take a photo, action shots and video possible.
- Camera: highest quality and resolution possible. More complex process and time consuming process.

Introduction and overview

- Motivation and history
- What is a photosphere
- Goals and objectives
- How to make a tour
- **How to share a tour**
- What about video?
- Sources and resources





How to share a tour

- roundme
- Google Street View and Google Maps
- Facebook and social media
- CUPIDO
- KR pano

Create Hotspot

CANCEL

Title...

Description...



3D



Reception

Rear Entrance

D'Arcy Thompson

Sensory Garden

West Wall

Museum Lawn

Wash House

Blacksmithing Exhibiti...

First Floor





St Andrews Preservation Trust



Welcome to the tour of St Andrews Preservation Trust musuem. Here you will be able to explore the museum, enjoy reconstructions of past life in St Andrews and relax in its gardens!

START





St Andrews Preservation Trust - D'Arcy Thompson
23 North St, St Andrews KY16 9PW, UK



Tour by Open Virtual Reality



Reception



Rear Entrance



D'Arcy Thompson



Sensory Garden



West Wall



Museum Lawn



Wash House



Blacksmithing Exhibit...



First Floor



St Andrews Preservation Trust - D'Arcy Thompson

23 North St, St Andrews KY16 9PW, UK



Armoural

Set into the eastern wall are two armourial stones that likely originate from the Cathedral.



Original

The original outside toilet for the house is located in the North-East corner of the D'Arcy Thompson garden. It is known as a 'double-seater' as it accommodates two people. This was the only form of sanitation for all four original dwellings in the house.



Herb Garden

This area of the garden also contains a herb border set against a high hedge. Within the border are Rosemary, Sage, Lavender and a variety of mints, along with Marjoram, Fennel and Lemon balm.



Tour by Open Virtual Reality



Reception



Rear Entrance



D'Arcy Thompson



Sensory Garden



West Wall



Museum Lawn



Wash House



Blacksmithing Exhibiti...



First Floor



St Andrews Preservation Trust - D'Arcy Thompson
23 North St, St Andrews KY16 9PW, UK



← Back

Share



Embed

Embed Size: 640x360

```
<iframe width='640'  
height='360'  
src='https://roundme.com/e  
mbed/558136/1835841'  
frameborder='0'  
webkitallowfullscreen  
mozallowfullscreen  
allowfullscreen></iframe>
```



Tour by Open Virtual Worlds



Reception



Rear Entrance



D'Arcy Thompson



Sensory Garden



West Wall



Museum Lawn



Wash



Map



Earth



Share to News Feed or story

Alan Miller
Take a virtual tour of tour of St Andrews Preservation Trust 🥳 feeling happy



ROUNDME.COM
St Andrews Preservation Trust from 23 North St, St Andrews
KY16 9PW, UK



ROUNDME.COM
St Andrews Preservation Trust from 23 North St, St Andrews KY16 9PW, UK
The St Andrews Preservation Trust Museum is a small, independent museum situated in a 17th...

Sue Johnston
Like Comment Share
Write a comment...

Barbados Museum & Historical Society
8 m
Yesterday, we asked if you could identify the shell located to the top front on the left of the display case.
If you said "King Helmet" you were correct!
Classified as Cassis tuberosa, this giant sea snail features a heavy shell, which has whorls which look similar to a crown, which lends to its name.



Catherine Anne Cassidy · Iain Oliver · Sarah Kennedy · CJ Davies · Bess R

Tag friends Check in Feeling/Activity

News Feed

Your Story

Sponsored



How to focus during
global chaos
blog.droptow.com



Your Fundraiser - An At
Home Service Project
lionsclubs.org

Your Pages

Open Virtual Worlds

20+ Notifications

Create Promotion

Birthdays

DrishyaHolidays Delhi India and
4 others have birthdays today

Contacts

- Sara Allkins
- Catherine Anne Cassidy
- Kate Miller
- Rosa Rice
- Caroline Wickham-Jones
- Jacek Dziamecki
- Andy Walker
- John Foley
- Skotta Valgardsdottir
- Hugh Miller
- Marie Clarke
- Cathy Cruickshank
- Ian Allinson
- Andy Wilson



The St Andrews Preservation Trust Museum

4.5 ★★★★★ (36)
Museum
Temporarily closed

Directions Save Nearby Send to your phone Share

Cozy museum in a 17th-century home featuring art & objects relating to the region & its inhabitants.

- 12 North St, St Andrews KY16 9PW
- B6R5+5V St Andrews
- standrewspreservationtrust.com
- 01334 477629
- Temporarily closed
- Add a label

Suggest an edit

Add missing information

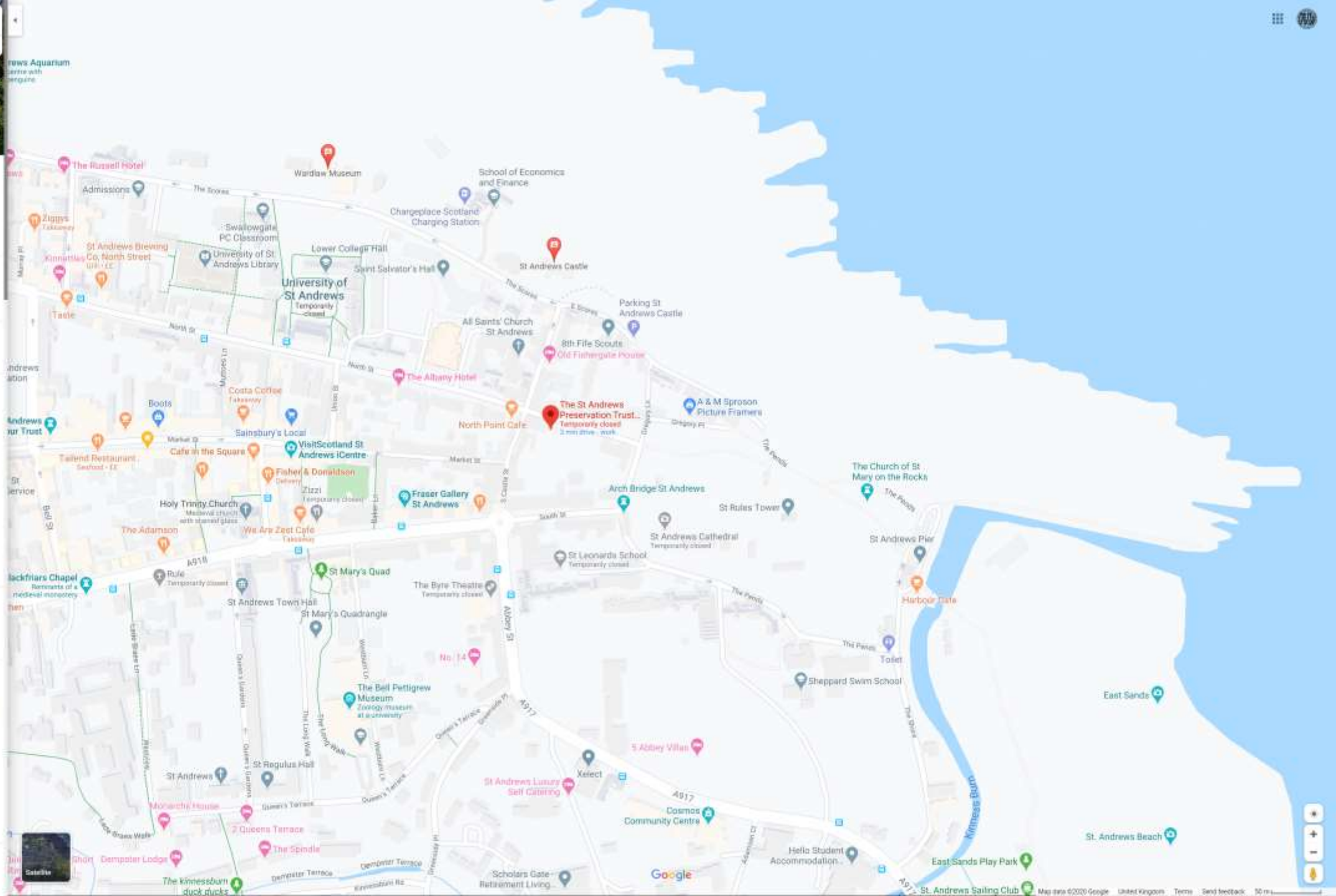
Add hours

Photos



Add a photo

Review summary







The St Andrews Preservation Trust Museum
4.5 ★★★★★ (36)
Museum
Temporarily closed



Cozy museum in a 17th-century home featuring art & objects relating to the region & its inhabitants.

- 12 North St, St Andrews KY16 9PW
- 86R5+5V St Andrews
- standrewspreservationtrust.com
- 01334 477629
- Temporarily closed
- Add a label

[Suggest an edit](#)

Add missing information

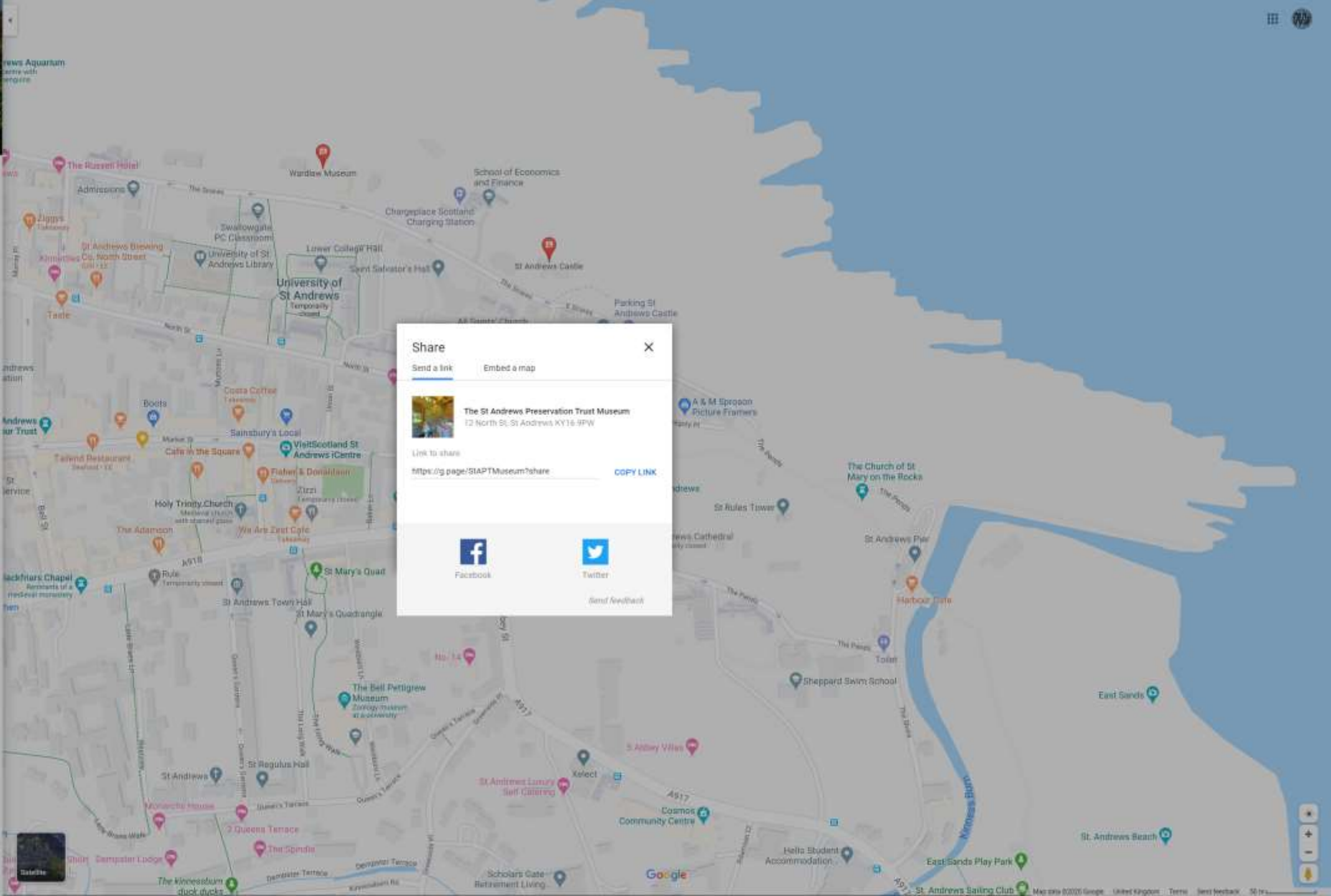
- Add hours

Photos




[Add a photo](#)

Review summary



Share



[Send a link](#) [Embed a map](#)



The St Andrews Preservation Trust Museum
12 North St, St Andrews KY16 9PW

Link to share

<https://g.page/SIAPTMuseum?share> [COPY LINK](#)

 Facebook  Twitter

[Send feedback](#)

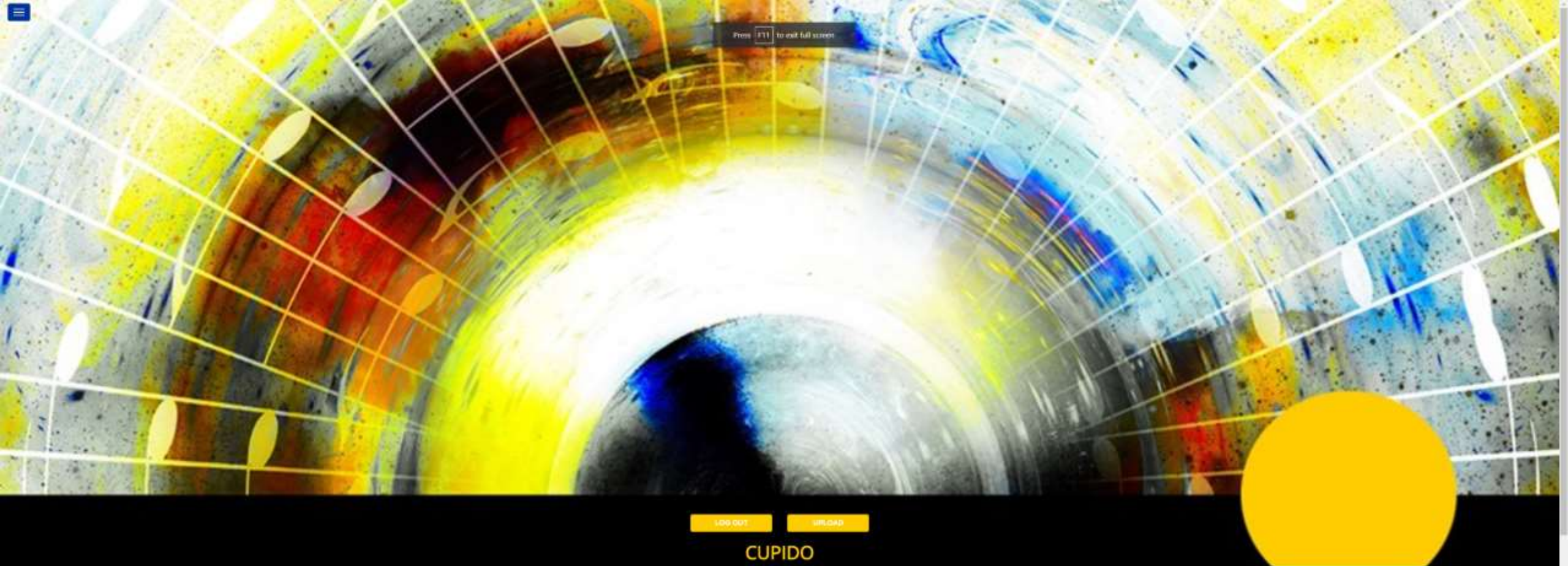


Archive

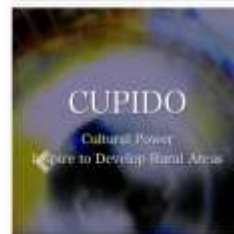


Creating an Archive

- **Use the best quality possible**
- **Include the original photographs**
 - **This enables re-use and guards against obsalesence.**
- **Create meta data:**
 - **Location, format, date**
- **Upload to Social Archive Site**
 - **For example roundme.com**



EXHIBITS



Culture Power: Inspire to Develop Rural Areas



North Uist 360



CINE15



Partner Map

GALLERIES: WORK PACKAGES





Immovable Heritage Upload Form

Form Type:

Name:

Media: Primary Media:

Start Date of Existence: End Date of Existence:

Drag & drop files here ...

Select files...

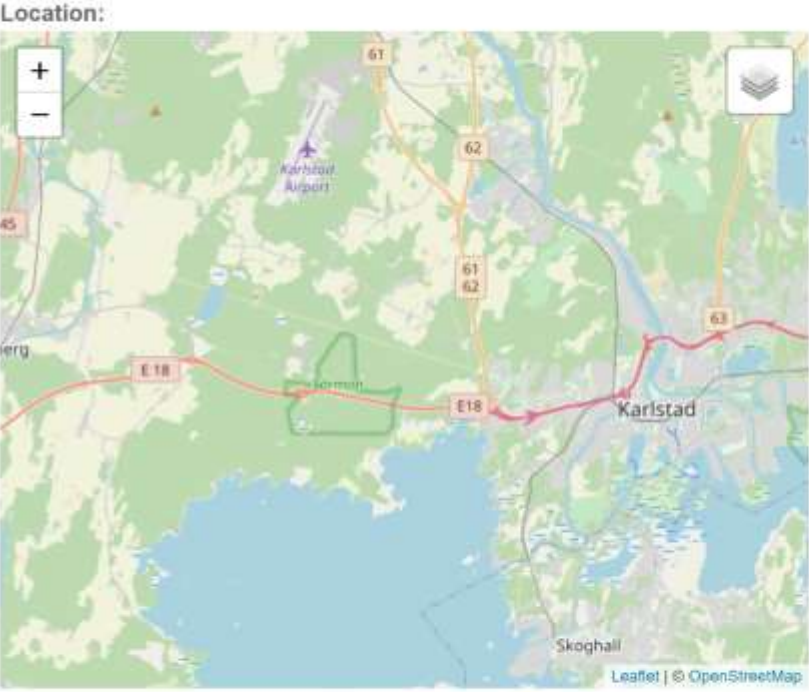
Language:

Contact:

Cleared for Release: ☐

CUPIDO only: ☒

Description:



Coords: ☒

File:

✕

Drag & drop files here ...

Select files...

 Browse ...

URL:

Sketchfab or Roundme embed URL for objects

Reporting Period:

Reporting 1 ▾

Name:

Title

Type:

Audio ▾

Format:

Select of Format ▾

Layers:

Nothing selected ▾

Media Creator:

Media Creator

License to End User:

In Copyright (InC) ▾

Media Creator URL:

URL

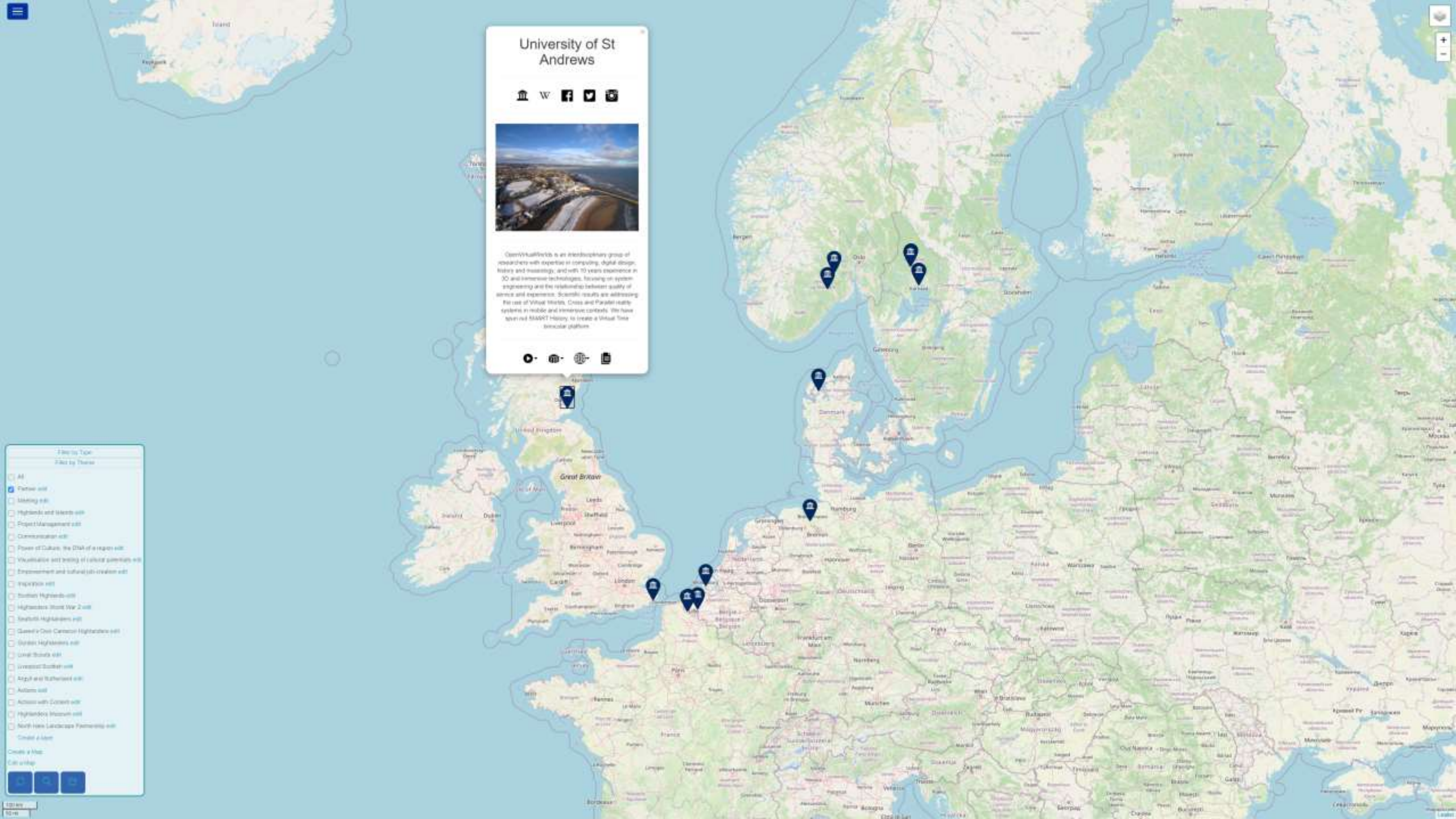
License Chooser

Source:

Cancel

Description:

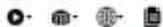
Description



University of St Andrews



OpenVitality is an interdisciplinary group of researchers with expertise in computing, digital design, history and museology, and with 10 years experience in 3D and immersive technologies. Focusing on system engineering and the relationship between quality of service and experience. Scientific results are addressing the use of Virtual Worlds, Cross and Parallel reality systems in mobile and immersive contexts. We have spent our 10 years to create a Virtual Time Immersive platform.



Filter by Type

Filter by Theme

All

☒ Parks and

☐ Meeting and

☐ Historic and

☐ Project Management and

☐ Communication and

☐ Power of Culture: the State of a region and

☐ Visualisation and testing of cultural heritage and

☐ Environment and cultural site creation and

☐ Inspiration and

☐ Southern Highlands and

☐ Highlands: World War 2 and

☐ Scottish Highlands and

☐ Gaelic's Own: Celtic Highlanders and

☐ Scottish Highlands and

☐ Local Studies and

☐ Unsettled Scottish and

☐ Art and Architecture and

☐ Action and

☐ Action with Content and

☐ Highlands Museum and

☐ North-west Landscape Partnership and

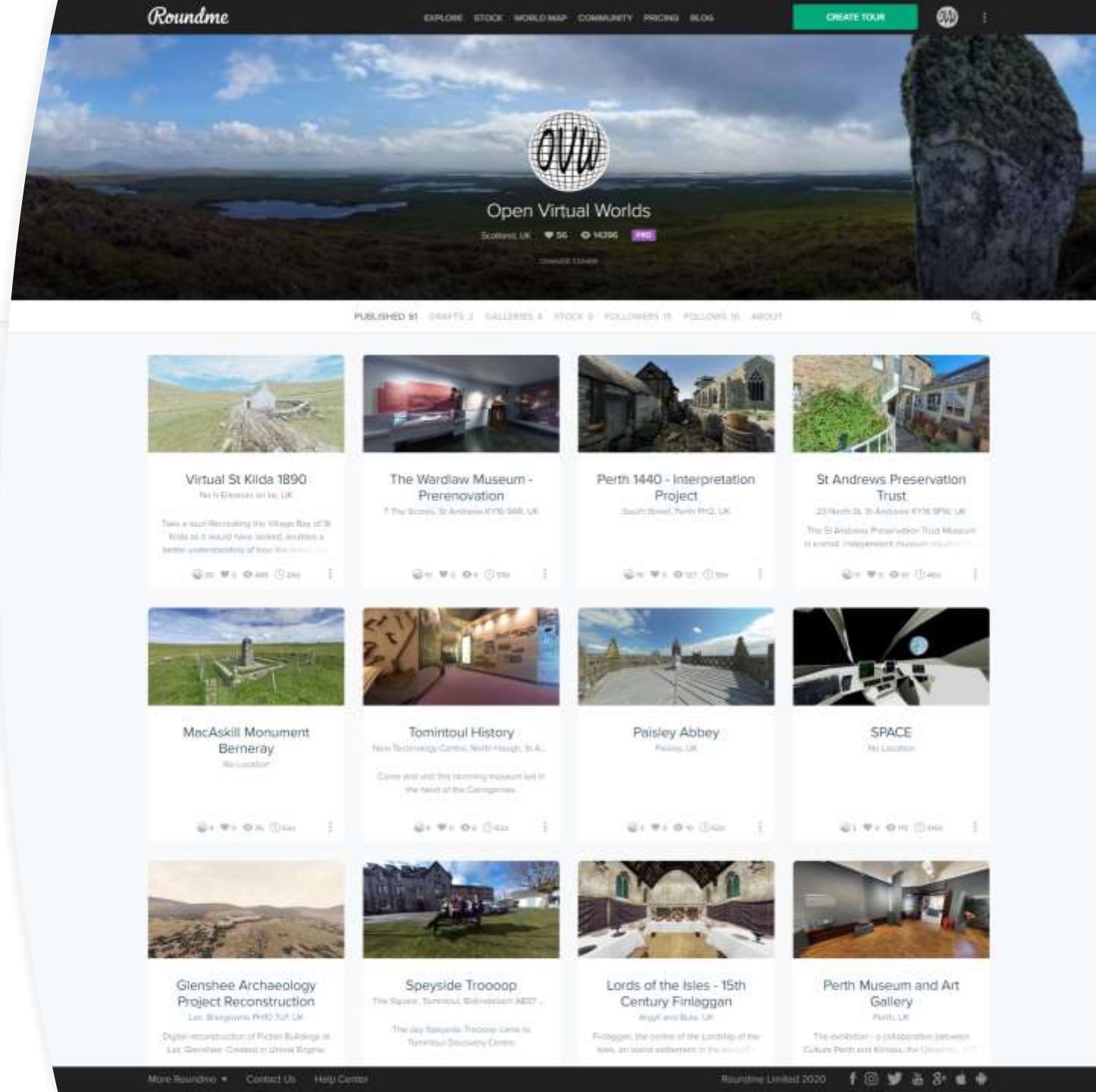
Cancel & Add

Create a Map

Can't find it?

Introduction and overview

- Motivation and history
- What is a photosphere
- Goals and objectives
- How to make a tour
- How to share a tour
- **What about**
- Sources and resources





What about video?

- Need a spherical camera
- Platforms:
 - Youtube, Vimeo and Facebook
- What is it good for?
 - Making flat videos
 - Making fixed videos
 - Action camera



What about live?

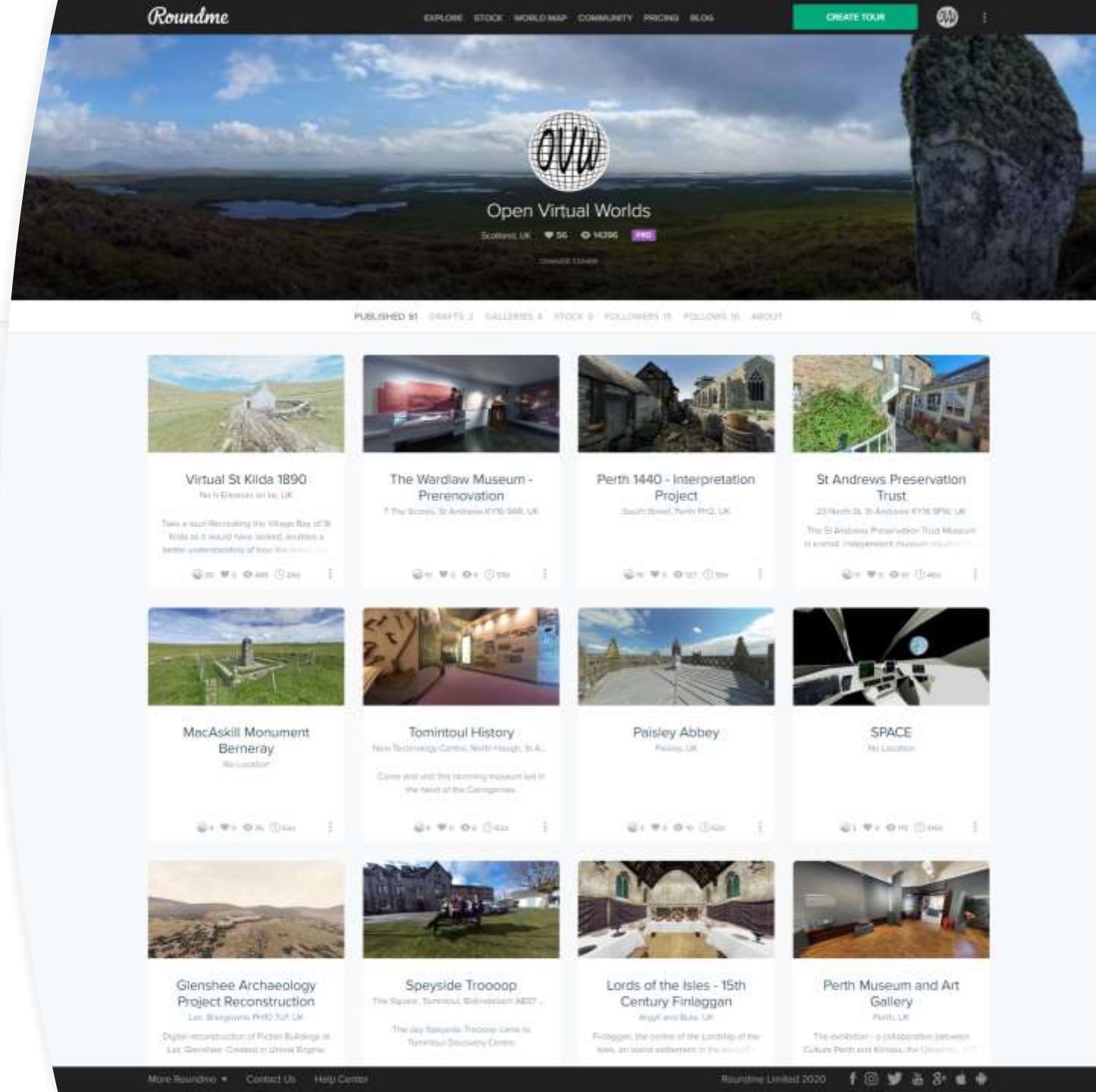
- Twitter, Youtube Facebook
- Live and direct
- Webinars
- A D.I.Y. broadcast studio

What about aerial?

- Need a drone
- Need a spherical camera
- Spherical images from the air
 - Making flat videos
 - Making fixed videos
 - Action camera

Introduction and overview

- Motivation and history
- What is a photosphere
- Goals and objectives
- How to make a tour
- How to share a tour
- What about
- **Sources and resources**





Open Virtual Worlds

- Bess Rhodes
- Sarah Kennedy
- Catherine Anne Cassidy
- Alan Miller
- CJ Davies
- Iain Oliver
- Ishbel Duncan