

## Digital Source Material for the Wicklow and Blackstairs Mountains in Ireland and the Cambrian Mountains and Mynydd Preseli in Wales

This report outlines the current extent of digital representations that exist for the following sites in Counties Wicklow and Wexford in Ireland and in the Cambrian Mountains and Mynydd Preseli in Wales.

Please note, the data is presented in two different ways.



# IRELAND

## **INTRODUCTION AND SCOPE**

This report outlines the current extent of digital representations that exist for the following sites in Wicklow and Wexford:

<b>COUNTY</b>	<b>SITE</b>	<b>COUNTY</b>	<b>SITE</b>
Wicklow	Baltinglass Abbey	Wexford	Killanne Church
Wicklow	Baltinglass Hillfort(s)	Wexford	Sculloge Gap
Wicklow	Coollatin House	Wexford	Blackstairs/ Blackrock Mountain
Wicklow	Glenmalure Valley	Wexford	White Mountain
Wicklow	Avoca Mining Heritage	Wexford	Ballyhighland (Caim) Mines
Wicklow	Mottee Stone	Wexford	Slaney River Valley
Wicklow	Rathdrum	Wexford	Crogan Kinsella
Wicklow	Tomnafinnogue Woods/ Railway line/ Tinahely		
Wicklow	Lugnaquilla		

*Table 1: List of sites included in the scope of the report*

For the purposes of this survey, digital representations refer to digital media depicting the site or components of the sites such as existing 3D models created by photogrammetry, drone footage and virtual tours. During the search most of the 3D models were displayed through Sketchfab – created using drone or static camera photogrammetry. These models are of varying quality from highly pixelated base models to high-resolution illustrations.

The drone and other video footage was predominantly sourced from YouTube. The sites included in these videos were either included in or the focus of drone flights by private users or were part of a larger collection of similar sites in the wider area.

Other depictions of the sites in art are not included as these have the potential to have been stylised to suit the purposes and aesthetic of the artist(s).

## BALTINGLASS ABBEY

Four 3D models were found on sketchfab.com - comprising two representations of a gravestone/memorial stone (Figure 1 a and b) and two representation of the plinth stone (interior and entry side) (Figure 2 a and b). Links to all four representations can be found her:

<https://sketchfab.com/search?q=Baltinglass+Abbey&type=models>

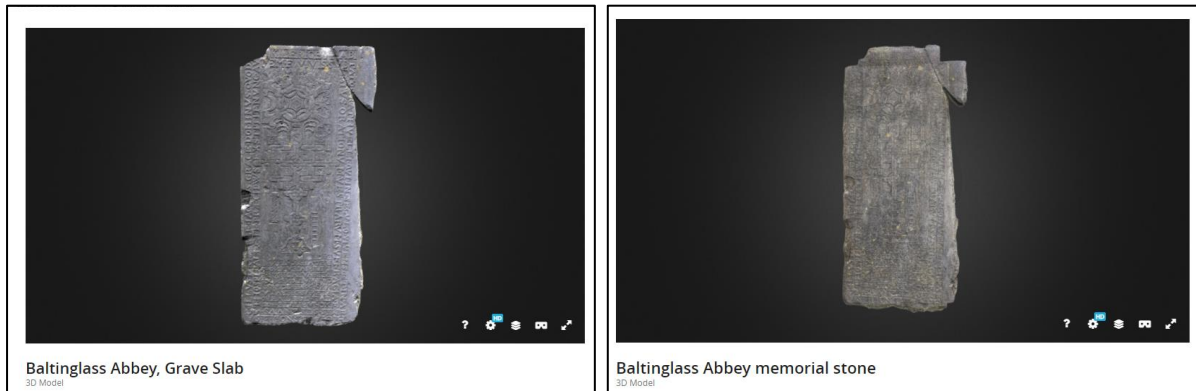


Figure 1: Baltinglass Abbey - Gravestone/ Memorial Stone



Figure 2: Baltinglass Abbey Plinth Stone

Short clips of drone footage of the Abbey and surrounds include:

- <https://www.youtube.com/watch?v=OgnaGvs75GY&t=11s>
- <https://www.youtube.com/watch?v=uQWS66MvZiQ> (predominantly still grabs)

## BALTINGLASS HILLFORTS

Models of Brussestown ring (Figure 3), Rathcoran Passage Tomb (Figure 4) and Spinans Hill summit (Figure 5) were created as part of a University of Aberdeen project and are available on Sketchfab. These were created

using drone photogrammetry – with the strategy outlined in O’Driscoll (2019). An additional model of Baltinglass Hill Passage Tomb (Figure 6) has also been created by a different user (hfenton) – an archaeologist based in Oxfordshire.

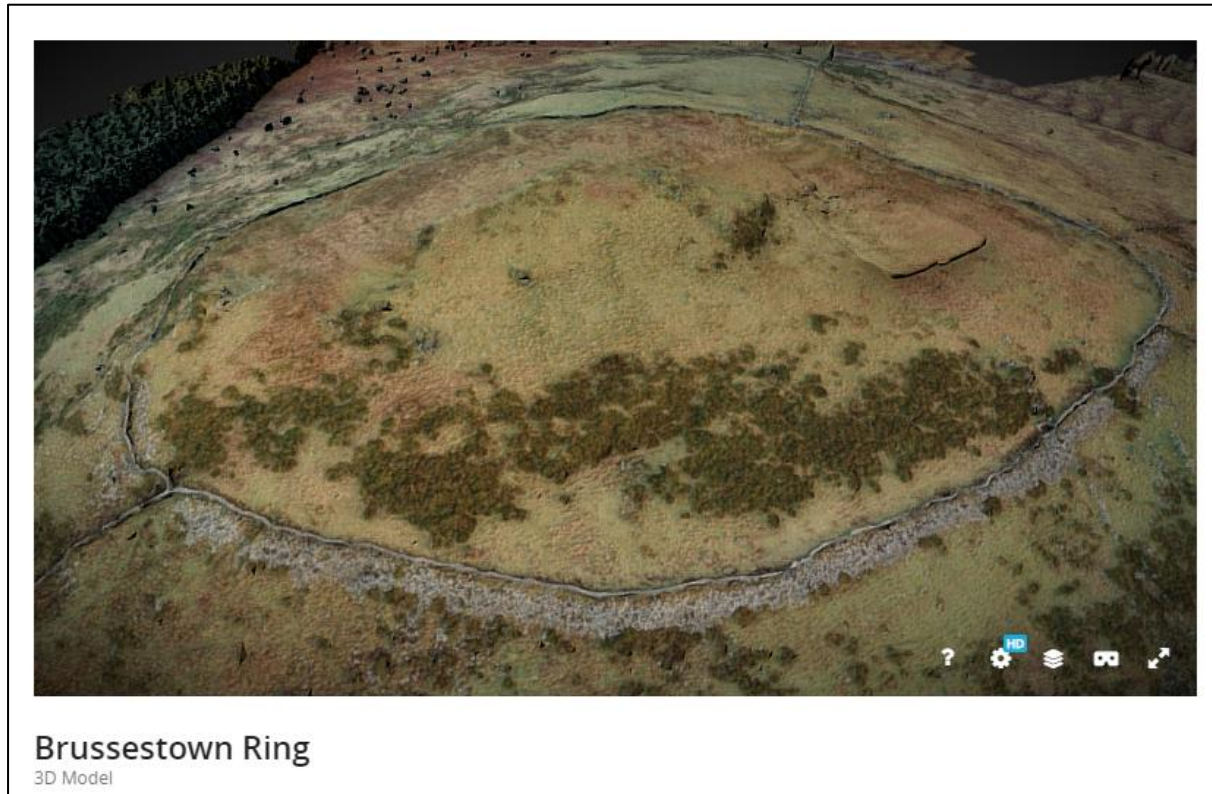


Figure 3: Brussestown ring model by University of Aberdeen Archaeology.  
<https://sketchfab.com/3d-models/brussestown-ring-ec318a2e09ac48ba8ff84cd1630e2868>

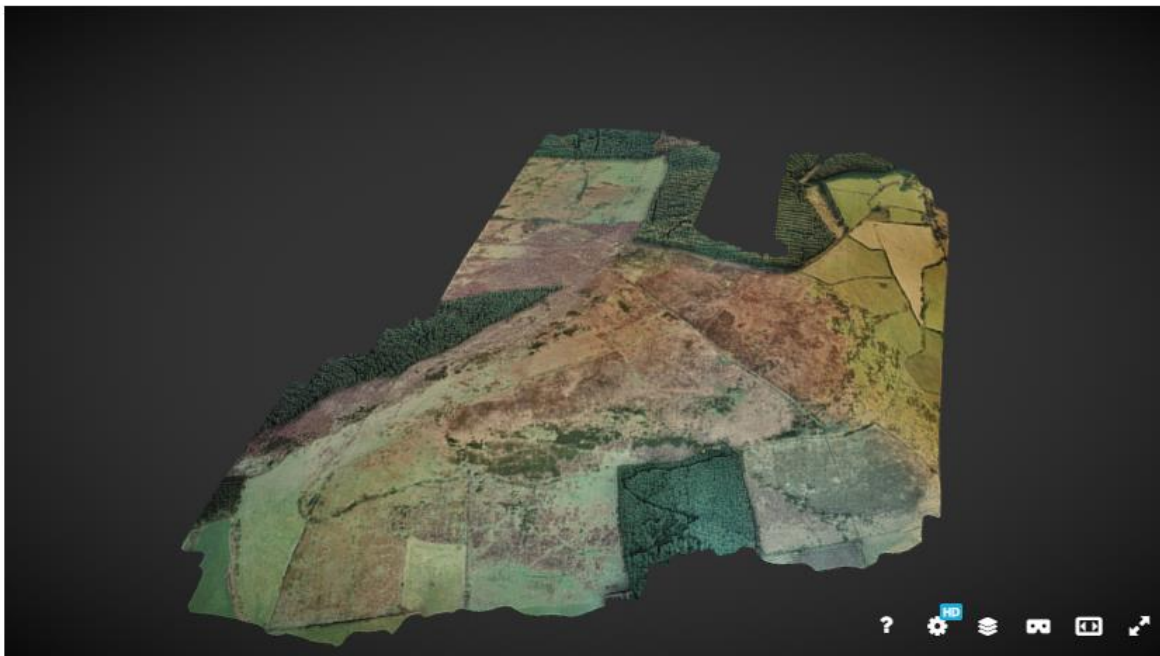


**Rathcoran Passage Tomb**

3D Model

Figure 4: Rathcoran Passage Tomb Model by University of Aberdeen Archaeology.

<https://sketchfab.com/3d-models/rathcoran-passage-tomb-c2acd58ae9d345099652a794c81cd76c>



**Spinans Hill**

3D Model

Figure 5: Spinans Hill Summit, Baltinglass by University of Aberdeen Archaeology

<https://sketchfab.com/3d-models/spinans-hill-b9a2ed29101a4ec38b8b2b4daadf8023>



Figure 6: Baltinglass Hill Passage Tomb by HFenton: <https://sketchfab.com/3d-models/baltinglass-hill-passage-tomb-338b35163b3f4f30a1053255eab19a63>

Digital representations of some of the Baltinglass Hillforts, particularly that of Kilranelagh have also been created by a local community initiative “Save Wicklow’s Ancient East”. The website <https://savewicklowsancienteast.com/> provide links to a number of videos created using a combination of drone and stills showing several of the hillforts including Kilranelagh and the solstice as Boleycarrigeen Stone Circle. Of note on this site is a still image of a reconstruction of Kilranelagh (Figure 7) – the source of which is not cited. Note that the material evidence used to determine the parameters of this reconstruction are not disclosed.



Figure 7: Digital Reconstruction of Kilranelagh Hillfort:

<https://savewicklowsancienteast.com/>

### **COOLLATIN HOUSE**

A virtual tour of Coollatin House was released in December 2020 which provides a 360 degree tour of the grounds and rooms within the main house – highlighting key features. This includes a layout view of all the rooms on each floor and combined (Figure 8). Users can move around the house and see all the features within each room (Figure 9). While several of these spaces have since been partially restored, the tour is comprehensive and provides a snapshot of the condition of the property as of 2020. The model is available here:

[https://my.matterport.com/show/?ref=fb&m=nXdSLMqPyuv&fbclid=IwAR1rl\\_fPRzNyMEaYYuPqZWn-Fqe9y8JUT9iMxXGphZTza3qvLUVdvwTvjZs](https://my.matterport.com/show/?ref=fb&m=nXdSLMqPyuv&fbclid=IwAR1rl_fPRzNyMEaYYuPqZWn-Fqe9y8JUT9iMxXGphZTza3qvLUVdvwTvjZs)

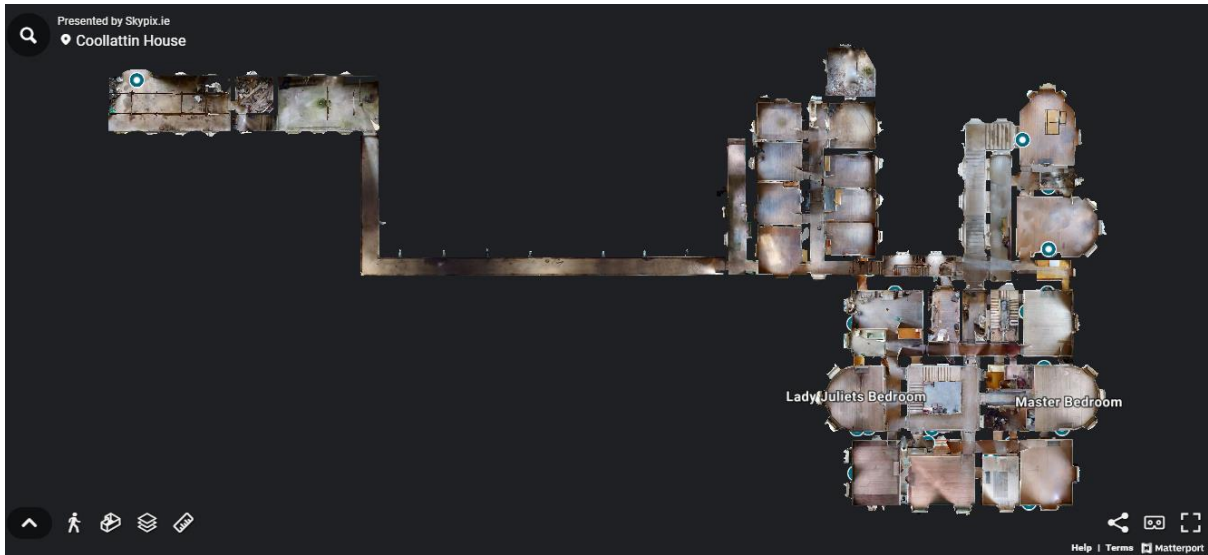


Figure 8: Multi layer floorplan view of Coollatin House



Figure 9: Example from the tour of one of the rooms in Coollatin House

Drone footage showing the house in the wider park and landscape is also available: <https://www.youtube.com/watch?v=xBnXKnkro38>

While the main house clearly has good digital representation, there is scope to enhance the Kevin Lee's research of the famine houses, using his historical data to reconstruct them.

## **GLENMALURE**

No 3D models exist of Glenmalure. Other digital representations in the form of drone footage include:



- <https://www.youtube.com/watch?v=5OJw0G2yVlg>
- <https://www.youtube.com/watch?v=mgtTmh8IEVE>
- <https://depositphotos.com/564548006/stock-video-glenmalure-wicklow-ireland-february-2022.html>
- <https://www.youtube.com/watch?v=Nv86VeJuRoY> (Also featuring Avoca, below)

### **AVOCA MINING HERITAGE**

No 3D models exist of the extant surface mining heritage of Avoca on Sketchfab or similar platforms.

Though the subsurface mining heritage of the area does not seem to be within the scope of CUPHAT work, a 3D laser scan of the underground 850 Adit, in Tigroney West, Avoca, Co. Wicklow was conducted by the Department of the Environment, Climate and Communications who may have the original 3D model. The model is shown here:

- <https://www.youtube.com/watch?v=Y2G2lgOeLY8&t=7s>

Aerial drone footage of the mines and surrounds include:

- <https://www.youtube.com/watch?v=gMpRocgGYH4>
- <https://www.youtube.com/watch?v=nEvqgsMXgZs>
- <https://www.youtube.com/watch?v=gByXFSh2I-o>
- <https://www.youtube.com/watch?v=Nv86VeJuRoY>

### **MOTTEE STONE**

No 3D models exist of the Mottee Stone.

The following links show drone / video footage of the mottee stone:

- <https://www.youtube.com/watch?v=rvBkNq-l-Vg>
- <https://www.youtube.com/watch?v=hPISs9VLDog>
- <https://www.youtube.com/watch?v=5hU6AXecJKc>

### **RATHDRUM**

There are no 3D models related to Rathdrum. There are drone videos of the viaduct and wider landscape:

- <https://www.youtube.com/watch?v=2Z8xvW4I6PI>,
- <https://www.youtube.com/watch?v=2oBiCw7rWuU>
- <https://www.youtube.com/watch?v=KWOgSQ4mRIE>

### **TOMNAFINNOGE WOODS/ RAILWAY LINE/ TINAHELY**

No 3D models exist related to either Tomnafinnoge Woods, the railway line or Tinahely.

There are a couple of YouTube videos documenting parts of the woodland, which show the biodiversity in different seasons. These include:

- <https://www.youtube.com/watch?v=Fsn3KWpyzuI>
- <https://www.youtube.com/watch?v=ynANqcAivb8>
- <https://www.youtube.com/watch?v=5DWXEfQ1aYI>
- <https://www.youtube.com/watch?v=llmLiuAOrxl>
- <https://www.youtube.com/watch?v=Reg-WWWbbJc>
- <https://www.youtube.com/shorts/NxeiO0mfBOI>

There is also a drone video of the areas around Tinahely:

- <https://www.youtube.com/watch?v=q9d3FevtO2A>

### **LUGNAQUILLA**

No 3D models exist of Lugnaquilla.

A 3D panorama of the view from the peak showing the names and heights of other peaks visible from the summit is available here:

- <https://peakvisor.com/peak/lugnaquilla.html?yaw=-140.17&pitch=-4.76&hfov=54.04>

There are a number of walking tour and drone video that include the peak here:

- <https://www.youtube.com/watch?v=0sOpTBx2n-4>
- <https://www.youtube.com/watch?v=BuVdWefB66U>
- <https://www.youtube.com/watch?v=25iBTOZtAzU>
- <https://www.youtube.com/watch?v=jrXU3EvrwOI>

## KILLANNE CHURCH AND GRAVEYARD

Two 3D models depict Killanne Church and Graveyard, though both are extremely low resolution (Figure 10 and 11).



Figure 10: Sketchfab Model of Killanne Church and Graveyards: <https://sketchfab.com/3d-models/killanne-church-graveyards-3e53dfa0ea4443fbbc8a0cf0657e752a>



Figure 11: Sketchfab Model of Killanne Church: <https://sketchfab.com/3d-models/killanne-church-8c4068ce959247d5ad9d0abb3713d59c>

Other digital representations include:

- Graveyard walkthrough:  
<https://www.youtube.com/watch?v=ht8qCQG8cOc>
- Part of a video on Killanne:  
<https://www.youtube.com/watch?v=86MNTLjckWU&t=36s>

### **SCULLOGE GAP**

No models or drone footage exists of Sculloge Gap.

### **BLACKSTAIRS/ BLACKROCK MOUNTAIN**

A panorama depicting and labelling the surrounding peaks (along with their relative heights) that can be viewed from Blackstairs mountain is available here:

- <https://peakvisor.com/peak/blackstairs-mtn.html>

No models or drone footage exists, though the following walking videos are available:

- <https://www.youtube.com/watch?v=-7ahevByJe0>
- [https://www.youtube.com/watch?v=j8ZN\\_EbV9-k](https://www.youtube.com/watch?v=j8ZN_EbV9-k)
- <https://www.youtube.com/watch?v=D0d-o3Wdlzk> (from Mount Leinster)

Little if any reference is made to the turf cutters house and other cultural heritage/ lived lives heritage associated with this site – though further insight was mentioned in this blog:

- <https://blackstairsblogblog.wordpress.com/2018/01/12/turf-cutting-on-black-rock-mountain/>

### **WHITE MOUNTAIN**

A panorama depicting and labelling the surrounding peaks (along with their relative heights) that can be viewed from White Mountain is available here:

- <https://peakvisor.com/peak/bran-scultair.html>

No drone footage of walking videos were identified.

## **BALLYHIGHLAND (CAIM) MINES**

No models or drone footage exists of Ballyhighland (Caim) mines.

## **SLANEY RIVER VALLEY**

No 3D models are available of the River Slaney. Drone footage of the river is available here:

- <https://www.youtube.com/watch?v=AqL04szfJz8>
- <https://www.youtube.com/watch?v=EQIsIrZ3RjE>
- [https://www.youtube.com/watch?v=qkZK8GDmh\\_A](https://www.youtube.com/watch?v=qkZK8GDmh_A)
- <https://www.youtube.com/watch?v=J8b5yP6mCUI>
- <https://www.youtube.com/watch?v=KNRMycWNq7E>

## **CROGAN KINSELLA**

A panorama depicting and labelling the surrounding peaks (along with their relative heights) that can be viewed from Crogan Kinsella is available here:

- <https://peakvisor.com/peak/croghan-kinsella.html?yaw=-120.63&pitch=-1.13&hfov=54.04>

Three walking tour videos are also available:

- <https://www.youtube.com/watch?v=Jlps3jCBrPI>
- <https://www.youtube.com/watch?v=IS23ZFdYrrs&t=35s>
- <https://www.youtube.com/watch?v=luCdPrWpVNM>

## **OBSERVATIONS AND RECOMMENDATIONS**

The extent of existing representations of the sites selected as part of the CUPHAT project is variable with a richer range of materials available for sites in Wicklow – particularly the Baltinglass Hillforts, and the 3D virtual tour of Coollatin House. This suggests that for the majority of the sites,

models created as part of the WP5 deliverables will significantly enhance the range of resources available to tourists. Many of the sites have some degree of video coverage – either from drone footage or walking tours. However, this has predominantly been captured by amateurs and enthusiasts, and while scenic does not provide much information about the content that has been recorded.

Drone and 360° camera footage are likely to be core components of the WP5 reconstruction work going forward. This will be enhanced by the inclusion of more information about the different heritage features within these landscapes – as a means of showing both the diversity and interconnectedness of cultural and natural heritage in the south Wicklow and Blackstairs Mountains. The inclusion of historical photographs of the areas could be of benefit here as well. These could be sourced from a number of sources including local communities through the show and tell events, identified through data collection in national archives. In researching digital representation in more broadly this site: <https://www.historicalpicturearchive.com/> seemed to be a good source of historical images, though these would need to be purchased on an as-needed basis.

## **REFERENCES**

O'Driscoll, J., (2019) Picture Perfect: Using Drone Technology and Photogrammetry Techniques to Map the Western Stone Forts of Ireland, *Journal of Field Archaeology*, 44:2, 126–146, DOI: [10.1080/00934690.2019.1570580](https://doi.org/10.1080/00934690.2019.1570580)

# WALES

## Index/Bibliography of pre-existing representations

Theme (tick all that apply)										
Upland region	Location	Type of media	Brief description	Archaeology	Geology & Landforms	Biodiversity	Community Lives	Media location	Procedure for access (if not online)	Link to website/ further information
Cambrian	Cors Caron	Info panel	Info panel covering the historical construction and engineering of the railway line over Cors Caron, 1866. Using Sheep wool in the foundation of the line.				x	Along the walk, on site.	Visit site	NA
Cambrian	Cors Caron	Info panel	Info panel covering the impact of the Abbey on Cors Caron. Peat cutting, used as fuel. Also how they used to hunt the various animals and use plants for healing.	x				Along the walk, on site.	Visit site	NA
Cambrian	Cors Caron	PDF	From NRW, lots of info covering the site and their current work			x		Online	NA	<a href="https://naturalresources.wales/days-out/place">https://naturalresources.wales/days-out/place</a>

										<a href="https://www.visit/mid-wales/cors-caron-national-nature-reserve/?lang=en">s-to-visit/mid-wales/cors-caron-national-nature-reserve/?lang=en</a>
Cambrian	Cors Caron	Info panel	A set of info panels with an artist's impression of the site covering 15000 years of the sites geological history, changing natural history and human impact on 6 panels.		x	x	x	Indoor shelter at the center of the bog	Visit site	NA
Cambrian	Hafod Estate	Touch screen - Info panels - scale model	Eglwys Newydd on the Hafod Estate houses a nice collection of information that relates to its history. There are two notable features within the exhibit, the touchscreen kiosk, which allows users to search the gravestones for family research and to locate said gravestones and the wonderful model of			x	x	Indoor within the Church	Visit site - not always open	<a href="https://www.dyfedarchaeology.org.uk/wp/discovery/projects/churches/eglwys-newydd-church-ceredigion/">https://www.dyfedarchaeology.org.uk/wp/discovery/projects/churches/eglwys-newydd-church-ceredigion/</a>



			the Hafod Uchtryd Mansion.							
Cambrian	Hafod Estate	Video	The Hafod Estate is a popular destination for YouTubers who share their walks with their followers. This has generated several videos that are worth further investigation are they offer an interesting insight to our target audience.			x	x	YouTube	NA	<a href="http://www.youtube.com/watch?v=UbjjJnoBwu">www.youtube.com/watch?v=UbjjJnoBwu</a>
Cambrian	Cwmyst wyth	3D scan - video	scan of the mines	x	x		x	YouTube	NA	<a href="https://www.youtube.com/watch?v=jVhROpHQ8eY">https://www.youtube.com/watch?v=jVhROpHQ8eY</a>
Cambrian	Cwmyst wyth	3D model	Photogrammetry	x	x		x	Sketchfab	NA	<a href="https://skfb.ly/CVXQ">https://skfb.ly/CVXQ</a>
Cambrian	Ystrad Einion	Video	Digitally reconstructed	x			x	YouTube	NA	<a href="http://heritageofwalesnews.blogspot.com/2012/02/ceredigion-metal-mine-">http://heritageofwalesnews.blogspot.com/2012/02/ceredigion-metal-mine-</a>

										<a href="#">brought-back-to.html</a>
Cambrian	Temple Mine	Video	Temple Mine laser scan reconstruction of current site.	x				YouTube	NA	<a href="https://www.youtube.com/watch?v=9yjX5CQpXkU">https://www.youtube.com/watch?v=9yjX5CQpXkU</a>
Cambrian	Temple Mine	Video	Video of Temple mine		x		x	YouTube	NA	<a href="https://www.youtube.com/watch?v=a9B9CH5I-jA">https://www.youtube.com/watch?v=a9B9CH5I-jA</a>
Cambrian	Pen Y Bannau	Illustration	No digital work other than LiDAR	x			x	Online	NA	<a href="https://coflein.gov.uk/en/site/300704/images">https://coflein.gov.uk/en/site/300704/images</a>
Cambrian	Ystrad Fflur	3D model	Photogrammetry	X			X	Sketchfab	NA	<a href="https://sketchfab.com/3d-models/g-hostly-holy-well-1f766b7d4e8a4f64a754900dd9e9b079">https://sketchfab.com/3d-models/g-hostly-holy-well-1f766b7d4e8a4f64a754900dd9e9b079</a>
Cambrian	Ystrad Fflur	3D model	Photogrammetry	x			x	Sketchfab	NA	<a href="https://sketchfab.com/3d-">https://sketchfab.com/3d-</a>

										<a href="https://www.youtube.com/watch?v=iJdkOQsS05g">models/10649-strata-florida-norman-arch-2022-03-23-8ae2fd4210064ca3a78497b876827ee4</a>
Cambrian	Ystrad Fflur	Digital reconstruction - touchscreen	The Cistercian Abbey of Strata Florida. It holds an exhibit that boasts a touchscreen kiosk that allows visitors to navigate around a digital reconstruction of the Abbey at its height and the farm of Mynachlog Fawr from the 1940s.	x			x	Indoor exhibition	Visit site - not always open	<a href="https://www.youtube.com/watch?v=iJdkOQsS05g">https://www.youtube.com/watch?v=iJdkOQsS05g</a>
Cambrian	Plynlimon	Video	Lovely, animated story that tells the mythical story of 3 sisters.				x	YouTube	NA	<a href="https://www.youtube.com/watch?v=Y_YO-nGHiTQ">https://www.youtube.com/watch?v=Y_YO-nGHiTQ</a>
Preseli	Pentre Ifan	Video	Digital reconstruction. Static images used to create video	x			x	YouTube	NA	<a href="https://www.youtube.com/watch">https://www.youtube.com/watch</a>

										<a href="#">ch?v=Ulip6oUxqDs</a>
Preseli	Pentre Ifan	3D model	Photogrammetry	x			x	Sketchfab	NA	<a href="https://skfb.ly/or7PP">https://skfb.ly/or7PP</a>
Preseli	Foel Drygarn	3D model	Photogrammetry	x			x	Sketchfab	NA	<a href="https://skfb.ly/oCGzU">https://skfb.ly/oCGzU</a>
Preseli	Foel Drygarn	3D model	Photogrammetry	x			x	Sketchfab	NA	<a href="https://skfb.ly/oCGAZ">https://skfb.ly/oCGAZ</a>
Preseli	Foel Drygarn	Video	Very informative video in Welsh with English subtitles detailing the history, archaeology, biodiversity, geology and human lived lives of the site.	x	x	x	x	YouTube	NA	<a href="https://www.youtube.com/watch?v=jAjYsjK9Ex4">https://www.youtube.com/watch?v=jAjYsjK9Ex4</a>
Preseli	Foel Drygarn	Illustration	Illustration by Toby Driver, Archaeologist from the Royal Commission	x			x	Twitter	NA	<a href="https://twitter.com/toby_drive_r1/status/1445633100852068360">https://twitter.com/toby_drive_r1/status/1445633100852068360</a>
Preseli	Waun Mawn	3D model	Photogrammetry - standing stone	x	x			Sketchfab	NA	<a href="https://sketchfab.com/3d-models/waun-mawn-002-txt-">https://sketchfab.com/3d-models/waun-mawn-002-txt-</a>

									<a href="#">cf64105156</a> <a href="#">8b40e790</a> <a href="#">20eca9c5</a> <a href="#">c2a1eb</a>
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