

A Sense of Place: Re-purposing and Impacting Historical Research Evidence through Digital Heritage and Interpretation Practice

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ABSTRACT

The dissemination and public engagement outcomes of the latest historical research evidence continue to benefit from tourism destination management and cultural institution intervention measures seeking to utilise digital technologies in reaching new audiences and enhancing the visitor experience through the deployment of high quality, authenticated, cultural heritage interpretative, digital content – accessed both online and on location. Whilst such activities offer new models of increasing public engagement with historical research, arguably they now also provide a new critical currency in the experiential dimension of the global digital economy. It is recognised that cultural heritage is a main contributor to tourism development, and internet tools provide platforms to extend the global reach of such heritage assets and narratives, as well as providing increasingly localised stimuli for in-destination visits to sites of historical interest and the application of digital technology in the presentation of aspects of intangible heritage. This article investigates the digital heritage and interpretation practices undertaken by the University of Wales, Newport's South Wales Centre for Historical and Interdisciplinary Research. It shares the experiences of authoring content and designing pervasive and immersive digital deployments of authenticated cultural assets in response to national cultural institutions and local government 'sense of place', destination image and digital identity intervention measures in the region of south east Wales, United Kingdom.

Keywords

Digital heritage & interpretation, historical research, destination management, sense of place, authenticated content, cultural assets, digital identity, intellectual capital, Newport, South Wales, Caerleon, King Arthur, tetrapylon, Roman, *Second Life*, *Mabinogi*, Raglan, Cwmbrân, virtual museum.

Introduction

Since 2008 the South Wales Centre for Historical and Interdisciplinary Research at the University of Wales, Newport, has collaborated with digital media content creators in forming digital interpretation cultural heritage assets and experiences which have been deployed in a wide variety of forms and contexts, and that provide new impact for the dissemination of historical research and collaboration with cultural institutions, local government tourism leaders and local history community groups. Until 2011 this interdisciplinary approach took place with the University of Wales, Newport's Institute of Digital Learning, and from 2012 with the CMC2 Community Interest Company located in Monmouthshire in south east Wales, with whom a Digital Tourism and Interpretation strategic alliance has been established. The emphasis of collaboration with digital developers has been fully interdisciplinary and has thus enabled innovation in the manner of cultural heritage narratives and the forming of new collections, which, as 'outputs' also serve as new impact experiences in the digital economy. As Graham (2002) argues, heritage is the part of the past which is selected for contemporary use, or a purpose of the present, and heritage as knowledge constitutes both economic and cultural capital. Furthermore, whilst authenticated heritage is a principle component in strategies to promote tourism and wider economic development measures, it is also a cultural product that can alter consumption and perception at heritage places, and can in itself create places for heritage consumption while raising awareness of intangible heritage with each experience. Therefore, it can be argued that historical research evidence, re-purposed as digital heritage, can exert a great influence over a region's sense of place in both cultural and economic terms.

The majority of the digital interpretation initiatives undertaken by the South Wales Centre for Historical and Interdisciplinary Research were on a commissioned basis which informed, in most parts, the style and nature of desired outputs in the form of cultural heritage and tourism enhancement products, including digital trails, websites, video webcasts, virtual museum spaces and augmented reality constructs. Despite the topic areas of some commissions being considered potentially contentious, in all productions it was understood that the historian, as authenticating author, would retain their intellectual freedom and integrity in determining the best methods of integrating the latest historical research

evidence into the digital experiences created. Such intellectual capital was considered paramount by commissioners in the securing of grant contracts, and thus highlights the connectivity of historian's knowledge to the economic intervention measures designed to create a new sense of place, cultural celebrations and the enhancement of visitor experiences in their regions of influence. The role of the digital creators was to ensure the best 'fit' of technologies to the nature of public engagement with the cultural assets created, with an emphasis on maximising the global research of web-based developments and enhancing visitors' experiences with digital constructs on location at key sites. This creative interdisciplinary working ensured a strong blend of expertise in producing historically sound messages and media.

Interdisciplinary experimentation and practice

Each digital heritage initiative presents specific challenges, but all demand a measured interpretative approach and a balance between content and presentation. Identifying an appropriate user profile, for example, is difficult, given a potentially wide variation in age, particular interests and levels of expertise within the user community. There is also a temptation to allow enthusiasm for a particular media innovation to lead to a compromise in content (see for example, Herbert, D.:1995, pp.16-17). There is a danger that media as a vehicle for presentation and interpretation of historical or heritage related themes will be allowed to become 'the message' to the detriment of the content. In our recent cooperative ventures, we have tried to ensure that an appropriate balance has been achieved. [Plate 1]

We believe that an example of media being employed to present the latest research findings in an innovative and appropriate way, is our digital trail of *Roman Caerleon*, prepared for the Royal Commission on the Ancient and Historic Monuments of Wales in the Welsh Government-funded *People's Collection Wales* online digital platform (Howell, et al: 2010a). Caerleon is one of the leading Roman sites in Wales. The headquarters of the Second Augustan Legion for some 200 years from c. 75 AD, it was one of three permanent legionary fortresses in Britain. The project provided an interactive digital trail which incorporates web-based, downloadable audio and



Plate 1
Roman Caerleon Trail Guide leaflet.

visual multi-media information compatible with mobile phones, including QR codes which allow downloadable site information. This information is provided bi-lingually, with Welsh or English language content as preferred. Incorporation of web-based computer generated reconstructions of the Roman fortress allowed presentation of the very latest research findings relating to the site, prepared in consultation with the Royal Commission and the National Museum of Wales. For example, we were able to present a computer generated reconstruction of the tetrapylon which once stood at the centre of the fortress. This feature is best understood as a four-way triumphal arch providing an imposing entrance into the headquarters precinct (Zienkiewicz: 1993, p.140; Howell: 2000, pp.387-395). It is also an example of a tangible heritage asset associated with one cultural tradition, in this case the Welsh *uchelwyr* (the aristocracy), which became intangible with its destruction in an attempt to 'erase memory' and impose a new Anglo-Norman tradition in the region (Howell: 2012, pp.11-21). Our web-based reconstruction was the first to include the tetrapylon.

Similarly, provision of downloadable media at selected locations offered us the opportunity to provide an innovative interpretation package, not only in terms of delivery of information, but also with respect to content and emphasis in interpretation. Traditional material

relating to the fortress has tended to concentrate exclusively on the Roman army. We took the view that a broader historical perspective was needed and shaped our trail accordingly. For example, the fortress was built as a centre of military administration in the aftermath of the Silurian War, a quarter of a century long guerrilla campaign fought between the Roman army and the native Silures (Howell: 2009, pp.65-75). As a consequence, we introduced a 'Silurian dimension' by extending our trail to the Iron Age hill fort on Lodge Hill which overlooks Caerleon. This allowed us to consider both the war and the nature of pre-Roman native society, as demonstrated by an important centre of the Silures (Pollard, et. al.: 2006; Howell and Pollard: 2004 and Howell: 2009). Similarly, we felt that the 'story' of the site should include some reference to its post-Roman development, and approached this need by referring to sites such as the medieval castle which incorporates a segment of the Roman wall, which developed in the Middle Ages. The result was, we believe, a groundbreaking presentation of this important Roman site, both in terms of media and of content. (see Plate 2)

The initial commission for the *Roman Caerleon Trail* was as an innovation-funded project to support the *People's Collection Wales* (a bilingual digital platform whose goal is to collect, interpret and display the stories of Wales) which seeks to remodel digital heritage trail

approaches, and to engage the public with Welsh tangible and intangible heritage on location digitally, utilising visitors' personal mobile devices, as well as online at a distance. The *Roman Caerleon Trail* was used as the centre stage item at the launch of the *People's Collection Wales* platform in the summer of 2010 in Cardiff.

This commission was timed to coincide with the City of Newport's hosting of the Ryder Cup in 2010, and in keeping with the golf course having eighteen holes, the trail featured eighteen points of interest. The trail was featured in a BBC News item relating to the role of digital heritage interpretative practice in enhancing a sense of place, during the time when the global spotlight was on the region with the Ryder Cup taking place at the Celtic Manor.

Since the development phase of this initiative, local history groups have re-purposed the digital content generated, and made the materials produced available through the Caerleon. Net local visitor website, and in 2012 the innovation project was mainstreamed (as part of the bilingual *Newport Explorer* destination management initiative) as a tourist experience by Newport City Council, with supporting trail leaflets available in local tourist information centres and access to a promotional video

about the trail accessible to visitors via a QR code on the Caerleon visitor information boards. More widely, the content generated has been used by schools to support educational visits to the Roman Fortress in Caerleon and on the Council's Tourism pages. Also in 2012, the interpretative approaches used in the *Roman Caerleon Trail* influenced the practice of the National Roman Legion Museum in Caerleon, which has introduced *Quintus, Centurion at the Caerleon fortress* as the interpretative character used to front the successful twitter account for the Museum which had 2,243 followers as of March 2013.

Another exciting venture into developing media allowed similar innovation in historical interpretation. Interpreting historical heritage sites in *Second Life* opens doors to a wide range of new possibilities. We were approached to provide a digital interpretation of medieval Newport in *Second Life*, and developed a site in cooperation with Newport City Council, Newport Past and the Friends of the Newport Ship. The result has become a 'Featured Destination' in *Second Life*, which is innovative in terms of content as well as presentation (Chilcott et al.: 2010). A key element in the site is an immersive virtual museum of medieval Newport set

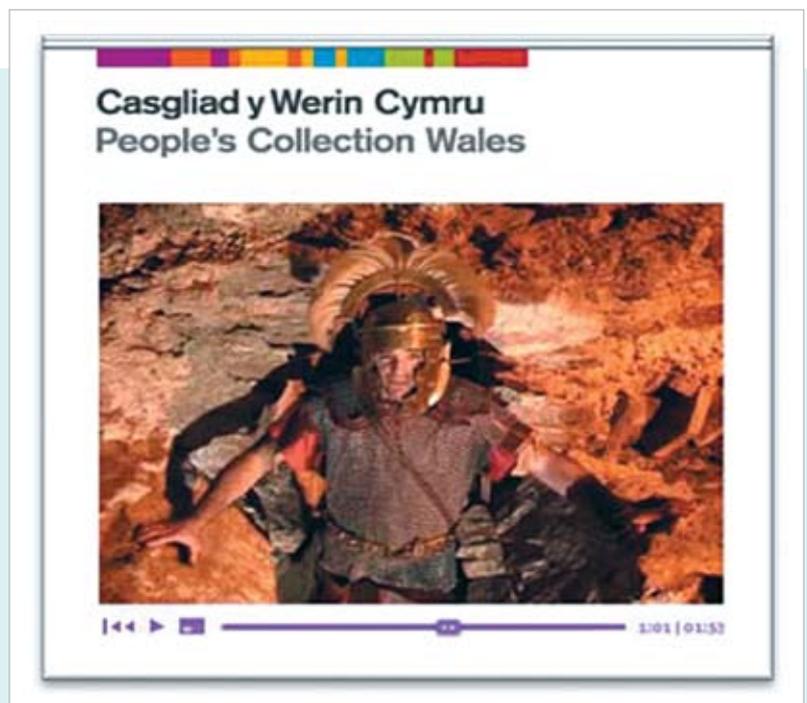


Plate 2
Flavius Rufinus, Centurion of the Second Augustan Legion interpretative guide to Caerleon.

within a visualisation of the imposing, but ruined, castle in the centre of the city. The castle dominates the riverfront but, because of health and safety concerns, is not accessible to the public. This experimental project showed that *Second Life*, as a construction tool for the digital heritage community, can allow virtual access to an otherwise inaccessible site and provide the opportunity to create new experiences for tangible heritage that has become intangible to the public for preservation and safety reasons. [Plate 3]

The virtual museum includes a large area dedicated to Newport's medieval ship, contextualising the vessel within the historical landscape of the medieval town. The ship provides an obvious historical focus, but the virtual museum also offers a glimpse of the future potential of a discovery which attracted international interest and a remarkable public campaign to 'save our ship'. Archaeological investigations were conducted by the Glamorgan Gwent Archaeological Trust as groundwork began on the construction of a new riverfront theatre in 2002. Timbers were soon discovered and this led to the systematic excavation of what proved to be a large fifteenth century ship, remarkably well preserved in the mud of the River Usk. The ship is particularly important as it was built during a revolutionary period in ship building, when medieval design was giving way to more modern types of vessel. The dismantled ship is now preserved on an industrial estate on the outskirts of Newport. With Heritage Lottery Funding,

and subsequent investment by Newport City Council, the ongoing work of recording and conservation has continued to the present day. [Plate 4]

There is a broad consensus that, ultimately, the ship should be re-assembled and displayed in a purpose-built museum overlooking the Usk. In a period of severe financial constraint imposed on local authorities, this desirable development is unlikely to occur in the near future. Our virtual museum, however, provides a glimpse of the potential for such a museum by offering a 'preview' for visitors in *Second Life*. Not only that, we have also been able to present a fully restored ship outside our virtual castle museum and encourage 'visiting avatars' to 'have a sail' if they fancy a virtual fifteenth century voyage. (Chilcott et al: 2010)

The museum is not confined to the ship. It also provides interpretative material which contextualises the ship while offering an overview of the development of medieval Newport. As with the heritage trail of Roman Caerleon, innovative media has afforded an opportunity to provide an equally innovative interpretation based on the latest research. For example, in the Middle Ages the historical development of Newport was frequently closely linked to events in nearby Caerleon. Over time, the old port at Caerleon was superseded by the new port at Newport, but not before an extended period of conflict and conflation. For some hundred years, Caerleon was controlled by the Welsh lords of Caerleon, in contrast to



Plate 3
The Digital Heritage Zone in *Second Life*.

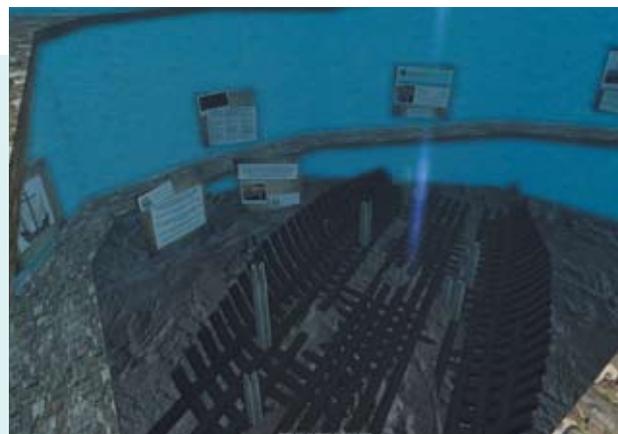


Plate 4
Virtual reconstruction of Newport Ship located in the submerged part of the Medieval Newport Virtual Museum in *Second Life*.



Plate 5
The South Wales Centre for Historical and Interdisciplinary Research's virtual home in *Second Life*.



Plate 6
Casgliad y Werin Cymru / People's Collection Wales Hub on the Digital Heritage Zone in *Second Life*

Newport, which was a centre of Anglo-Norman authority. Interactive interpretation panels in the virtual museum provide a platform allowing us to display current research findings relating to themes like the role and influence of the lords of Caerleon, and their complex interaction with Anglo-Norman leaders like Robert, Earl of Gloucester, who held Newport (see Howell: 2000). [Plate 5]

More broadly, utilising the *Second Life* immersive, multi-user environment enabled the formation of a world-first Digital Heritage Learning and Knowledge Exchange Zone, which hosted the Medieval Newport interpretative experiences. This innovative Web 3D approach evolved to include virtual presences for the Welsh Digital Heritage community of interest, and to provide a Web 3D approach for access and the dissemination of research evidence in this field. Contributing partners who benefited from this approach included the University of Wales, Newport's South Wales Centre for Historical and Interdisciplinary Research, the Arts and Humanities Research Council's *A Network for Digital Heritage in Wales* Group and the *People's Collection Wales* (with an emphasis on celebrating innovative projects associated with this national Web 2.0 platform).

The suite of statistical analysis tools of *Second Life* was imperfect during 2010 when the immersive intangible heritage experiences were developed, however, at the time of launching the virtual museum, the land management tool identified a regular engagement with the digital intangible heritage with an average of 2371 avatar virtual visitors per month over the first three months of the promotion of the immersive interpretative experience. The *Second Life* global community also made the Medieval Newport Virtual Museum a featured destination, or 'destination pick', in 2010 as an indicator of esteem. [Plate 6]

Among our more problematic digital undertakings have been two interactive trails relating to the legend of 'King Arthur' (Howell et al: 2010b; Howell et al: 2009). These packages were problematic in the sense that our original brief was to present Arthur and his activities in south-east Wales. The scope offered by digital technology would have made the task an easy one. However, we declined to proceed because the historical evidence did not allow us to do so. In reality, the available evidence means that the historicity of Arthur is debatable, while locating Arthur in a particular location is impossible (see Pryor: 2005; Alcock: 2001). Instead we suggested an alternative strategy. While the historical Arthur is problematic, the impact of the literary Arthur on the

medieval mind is indisputable. Moreover, aspects of that literary tradition were closely associated with south Wales (see Bromwich: 2008). Our suggestion was a digital trail which brought that tradition into focus. Happily, the approach was agreed and we were able to produce *Reclaiming King Arthur – The Legend in the Landscape* (Howell et al: 2009) and *Home to the Legend of King Arthur* (Howell et al: 2010b). [Plate 7]

As with the other initiatives described above, it was possible to achieve a very satisfactory blend of innovative media with sound historical and, in these projects, literary interpretations. Moreover, once again we were able to bring innovation to our interpretative approach. While the literary Arthur was very much the brainchild of Geoffrey of Monmouth, a twelfth century writer with strong Welsh associations, there is also a very different Arthur in ancient Welsh tales such as the *Mabinogi*, frequently presented as the *Mabinogion* (Gantz: 1976; Bromwich: 2006 and 2008). By carefully selecting vantage points on our trails, we were able to incorporate elements of both traditions, presenting a fresh approach to the Arthurian legend as well as an introduction to early Welsh literature for our trail users.

Exploration of sources such as the *Mabinogi*, probably derived from very early oral traditions, enable investigation of the way in which they have informed a

long-standing intangible legacy which was adopted by the later medieval bards, and subsequently through performance/interpretation of the tales through agencies such as *eisteddfodau*. The performance tradition is now regularly and effectively employed by the National Museum of Wales, and our trail adds digital enhancement to the presentation of the stories.

Another of our recent projects resulted from a commission to prepare a digital trail for Raglan. This was challenging in the sense that for most people coming to this mid-Gwent area, a visit to Raglan is synonymous with a visit to the impressive and very important fifteenth century castle on the outskirts of the modern village (see Kenyon: 2008, pp.108-111). However, our brief was to produce a trail for the village itself and that required a fresh approach to content.

We decided that it was undesirable, indeed effectively impossible, to present the history of Raglan without reference to the castle; consequently a key element in the trail was exploration of the interaction between castle and town, explaining that Raglan had been a town in the Middle Ages. An obvious place to begin was the church, a medieval structure which had served the town but which was also inextricably linked with the residents of the castle. Decisions were required with respect to chronological emphasis, and we took the view that a



Plate 7
Reclaiming King Arthur – The Legend in the Landscape webcast.

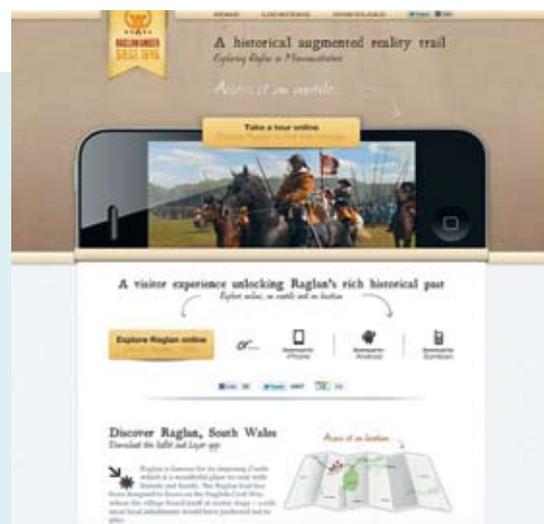


Plate 8
Raglan Under Siege 1646 – a historical augmented reality trail.

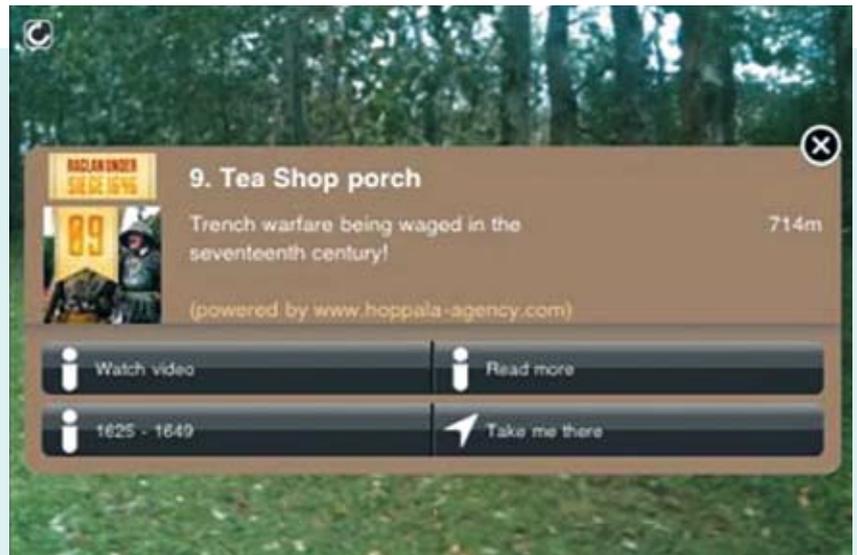


Plate 9
Raglan Under Siege - digital content options available through the Layar augmented reality application.

leading theme in our interpretative package should be the 'English' Civil War of the seventeenth century. A case could be made for a fifteenth century focus, but the high historical visibility of the Civil War siege, which caught up both town and castle, prompted us to concentrate on this period. As with previous trails, however, we decided that it was essential to contextualise seventeenth century events with reference to the historical background and subsequent development of the area. [Plate 8]

As a consequence, sequences at the church include references to historical characters such as the Welsh knight, William ap Thomas, who was responsible for the first phase of construction of the castle. The emphasis, however, was placed on points within the church like the plaque placed above damaged tomb monuments. The plaque, erected by the 8th Duke of Beaufort, commemorates family monuments *ruthlessly destroyed by the Parliamentary soldiers after the siege of Raglan Castle*. Context was also important as our trail moved from the church to nearby Beaufort Square, which allowed us to consider the small medieval town which had developed in Raglan (Hopkins: 2008, pp.128-131). Subsequent steps then brought us back to the period of the Civil War with reference to features such as Parliamentary earthworks built during the siege. The final points on the trail relate to Castle Farm, built close

to the castle just before the Civil War. After the conflict, architectural features such as doorways were taken from the castle which, after the siege, was slighted to such an extent that it was never occupied again. The farm is located virtually in the shadow of the castle, and as a result we bring visitors to the castle without actually incorporating the castle in our trail. We also provide them with an innovative and interesting historical heritage experience. [Plate 9]

As with all our productions, we tried to balance a creative use of media with sound historical analysis. An imperative for us in all our projects has been to find an appropriate and historically sound blend of media and message. Collaborative working with digital creative media identified the potential to extend the reach of end user experiences through the creation of the *Raglan Under Siege 1646* augmented reality package, developed through the Layar digital platform (as seen in plate 9). In this instance, easy access to the video and website content was deployed alongside the additional opportunity to provide links to further relevant and authenticated online content, and the in-built navigation tool between points of interest of the augmented reality tool. Developers identified a relative ease of use in the production process, utilising the Hoopola platform as the construction tool.

The Raglan digital heritage trail experience is promoted to visitors through the *On the Digital Trail* section of the *Visit Wye Valley* hard and digital copy tourism brochure. It requires evaluation of its full impact as a visitor experience, however, the approach taken to utilise intangible heritage stories as drivers to increase footfall into areas of local trade in Monmouthshire is being replicated in 2013 by the development of an equivalent initiative in the market town of Chepstow, Monmouthshire. Also in 2013, the Raglan Local and District Heritage Group have been inspired to engage in their own digital heritage activities supported by local and national heritage grants. The resulting *Raglanpedia: Pioneering Digital History* initiatives are worthy of investigation by the Intangible Heritage research community. The impact of such initiatives are being investigated through in-depth doctoral research by Steve Moss, a research student in the South Wales Centre for Historical and Interdisciplinary Research in Newport.

One of our most recent projects, a digital heritage trail of Cwibrân, has built on previous projects. Again, context has been important as we examine the ancient history of a new town. To most visitors, Cwibrân is synonymous with new town development, and few interpretations have examined its history before the industrial development of the nineteenth century. Working with the Ancient Cwibrân Society, our digital trail, *Ancient Cwibrân – a walk through time*, explores the ancient past of the new town. Moving backward and forward through time, we explore sites like a medieval church, and late medieval and Tudor houses, as well as Bronze Age burial mounds and the towering Iron Age hill fort on Twmbarlwm. The result is another innovative approach to historical heritage which combines history, archaeology and digital technology.

These digital initiatives are prepared in close consultation with local partners. The *Ancient Cwibrân* trail is a case in point as it was produced in cooperation with the Ancient Cwibrân Society, and incorporates on camera interviews with members at various points on the trail. This cooperation allows us to explore their selection, based on local knowledge and regular interaction with local communities, of cultural manifestations to enhance both their own enjoyment of the local landscape, and to encourage tourist interaction with the region. Through such close interaction with local groups it has been possible to respond to public demand, while reaching out

to a wide cross section of society involving different age groups and income categories in both very local, and regional, populations. Spin-offs such as successful workshops on 'Celtic' art have followed.

Consultation with groups such as the Cwibrân Society, the Monmouth Civic Society, the Monmouth Archaeological Society and the Caerleon Tourism Forum is both formal and informal. Examples of new initiatives derived from this process include a second, archaeological heritage trail of Monmouth, which responds to local demand while supplementing a Blue Plaque Trail which we were originally commissioned to prepare by the Local Authority. Similar collaboration assures that a new digital heritage initiative for Chepstow, currently in the development stage, will include examples of intangible heritage such as the *Mari Lwyd*, a community participation tradition recently revived and widely supported in the area.

Exploration of the use of both immersive and pervasive digital interpretation practice.

These products reveal the breadth of digital technologies that can be utilised by historians in re-purposing their research evidence, both for the dissemination of findings and for public engagement purposes.

From a technical perspective, the commissions undertaken have helped inform the planning of future practice. For example, web 2 based publications continue to provide the greatest ease of access to the heritage assets generated, and the widest local, national and international access potential to targeted audiences. This online publication practice has also allowed an ease of integration of this content into the learning and teaching of history in educational contexts at the University, and in adult learning community settings. Importantly, this online type of publication also enables heritage sites to use the content created on interactive touch screens on location at heritage sites, or as digital experiences at Tourist Information Centres.

The most creative medium for experimenting with new forms of interpretative heritage experiences turned out to be the Web 3D immersive digital medium with *Second Life* offering flexibility to integrate web 2

materials cleanly into web 3 virtual constructs. The ability for this multi-user environment to host a varied form of shapes and representations of heritage, from medieval ship remains to futuristic research hub complexes, was both stimulating and rewarding. Whilst the Digital Heritage Learning and Knowledge Exchange Zone secured thousands of visits from avatars around the world, there were barriers to engaging in the medium concerning participants' digital literacy in the use of the medium, and available technical hardware, which was explored more fully with mature internet users in a study in 2011 (Chilcott & Smith: 2011). This study identified the potential for more mature internet users to engage with digital heritage creations housed in the *Second Life* medium, and pointed to wider applications of virtual world environments and the perceptions of more mature internet users about the content, style and form of interactive heritage interpretation which it is possible to create in such environments.

When seeking to deploy digital media on location at heritage sites, the use of hard copy leaflets with maps, summary written content and quick response codes that enable visitors to access digital content on demand with mobile devices, continued to be desired by commissioning bodies seeking to deploy such intervention measures to enhance interpretation and the sense of place at heritage locations. The blend of traditional knowledge exchange approaches with digital interpretation techniques proved accessible to both visitors and heritage location management staff. These pervasive media approaches continue to receive accolades and generate new opportunities for future commission based activities. In the instances of the *Roman Caerleon* and *Raglan Under Siege 1646* digital interpretation outputs, the supporting video sequences were outsourced for hosting via YouTube, which proved successful in offering reliable access to a broad range of smart phone platforms and their web browsers. In the case of the *Raglan Under Siege 1646* augmented reality Layar experience, it is notable that Layar is compatible with the widest variety of smart phone platforms, and publication within this medium was free, with the option to retail the augmented experience that in this instance was not pursued. However, the possibility would be considered for future publications of this nature due to the considerably enhanced experience this resource offers.

Conclusions

Interdisciplinary collaboration between historian and digital developer communities has extended the reach and impact of historical research evidence, and has re-purposed such evidence as digital heritage assets. These serve as both cultural and economic capital and provide for the enhancement of intangible heritage assets such as interpretation of the tales of the *Mabinogi* and the regular staging of the *Mari Lwyd*.

It is also worth considering how the most recent historical research evidence has a new context as intellectual capital with a strong currency in the tourism and experiential dimension of the digital economy. Authentication is considered a crucial role for the University historian in such undertakings, but one of the impacts of the digital age is to develop the traditional concept of 'authenticators as guardians of knowledge' to 'authenticators as authors of shared knowledge' with a broad cultural impact through the engagement of digital interpretation techniques.

While digital technologies continue to evolve at a rapid rate, they provide historians with a rich range of dissemination tools. In all instances, authenticated and accessible content will continue to be required to engage audiences with Wales' extensive tangible and intangible heritage, and the diversity of localised, historically informed digital assets which offer a global reach. 🇬🇧

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