

Virtual Malmesbury Brief - TVPP/Malmesbury

CLIENT	
PROJECT NAME	Virtual Malmesbury
CLIENT NAME	TVPP & Malmesbury Town Team
UNIVERSITY CONTACT	Paula Doughty-Young / Debs Wilson (CEDI)
PAID / UNPAID?	PAID
CLIENT CONTACT NAME	Simon Cooper/David Bowen-Jones
TEAM:	TBC. Possibly Sam Barker (Lecturer), Jared Hemmings (Lecturer), Debs Wilson (limited availability) Ruben Monteiro (3 rd Yr), Ben Goodwin (3 rd Yr) Carly Hurrell (MA), Will Rudd-Clarke (Grad),
PHONE	PHONE
EMAIL	EMAIL

PROJECT | *purpose and opportunity*

Malmesbury is a vibrant, treasured and historic town in North Wiltshire. ‘Virtual Malmesbury’ is a set of connected projects that will increase strength of our local economy by increasing footfall, time spent and £ spending in Malmesbury. The projects will do this by establishing additional interest and reasons to visit Malmesbury and its attractions, creating new visitor experiences in Malmesbury, and improving the promotion of locally based retailers, producers and service providers. The main purpose of the set of connected projects is to:

1. To attract more visitors to Malmesbury.
2. To improve the visitor experience and, as a consequence, increase the time and £ spent in Malmesbury.

OBJECTIVE | *what does the project work to achieve?*

1. ‘Virtual Malmesbury’ Interactive Maps & Trails. Creating the web-based technical platform to map and host an expandable number of themed trails and sets of information in, around, and to Malmesbury, including selected Augmented Reality realisations (see section 4), all with provision for the development and expansion of information available to visitors to be created, developed and sustained by local organisations.
2. Educational, memorable and entertaining visitor experiences to encourage and guide exploration of the Town by dramatising individual points of interest and link them to tell the story of the many different areas, time periods and characters of the town and abbey site.
3. To bring more visitors to Malmesbury, to make their time in the town richer and more fulfilling, and to increase their understanding of the town’s pivotal place in history.
4. Engaging, educational and interactive content will be made available throughout the town on smartphones and online:
 - a. **Create the Abbey exterior and interior in 3D and animated reconstruction** (working effectively in 2D on smartphones with capability to turn at least 50% into effective 3D compatible with basic 3D viewing equipment at no extra cost):
 - i. Interior Nave real footage integrated with travel into Transept and other demolished areas, showing what the Abbey looked like in its heyday.
 - ii. The Abbey cloisters and Abbey library.
 - iii. The view from the Watching Loft.
 - iv. The South porch in its glory - coloured and before weathering, based on original designs
 - v. The flight of Eilmer the flying monk
 - vi. The Civil War attack up Abbey Row overlain on drone footage and from other angles
 - vii. Exterior of Malmesbury Abbey Square, market and street in the medieval period
 - viii. 360deg view around dramatically lit 3D model of Athelstan’s head (Phase 2 the head speaks in the Saxon language of the time
 - ix. Parts of the existing relief model of the Town (in the Museum) rendered and enhanced in 3D for the screen with motion through routes across the model

- x. A montage of the development of the Abbey site as a whole, including the area proximate to Malmesbury (i.e. showing vineyards, fish ponds, and mills outside town and links to Littleton on Severn, from 650AD to present).
 - xi. A Saxon street scene.
 - xii. The Evolution of the town walls and town plan from 2,800 to current.
 - xiii. Hannah Tynnoy's demise.
 - xiv. How the High Street looked in 1870.
 - xv. xiv. Showing the construction of an arch (known to work well with primary age school children)
 - xvi. Montage of exhibits 'flying' into the Museum, so that people seeing it will be drawn to follow
 - xvii. A demonstration of silk making.
 - xviii. A minimum of three photo opportunities for a suitable VA image (e.g. with Eilmer, King Athelstan, a Tiger to appear alongside the User in their smartphone) and be posted on Virtual or Discover Malmesbury.
 - xix. *It is expected that for some of the above (i.e. silk, a typical day in the life of a monk, Saxon street scene and arches) might be shared material already produced elsewhere.*
- b. Drone Flights Footage:**
- i. Malmesbury Abbey interior - the length of the existing nave including view from the Watching Loft and close ups of roof and bosses in Nave.
 - ii. Exterior views of Malmesbury Abbey high altitude and then descend to close-up shot of four major locations
 - iii. The approach route and artillery sites for the major sieges of the town and Abbey site
 - iv. High altitude view of Malmesbury hilltop position
 - v. High altitude views of rivers and waterways surrounding Malmesbury. Static high altitude views for subsequent 3D modelling/utilisation in reconstruction
 - vi. The flight of Eilmer the flying monk
 - vii. The flight of Walter Powell in the Eclipse
 - viii. The railway line from Malmesbury
- c. Website Creation, Coordination/Optimisation.** Creation of co-ordinated and Search Engine Optimised (SEO) historical information content across local websites - Athelstan Museum, Abbey, Civic Trust, History Society, Thomas Hobbes Society, Discover Malmesbury etc. The Technical Requirements are:
- i. Engaging. An engaging user experience that matches market expectations (including in terms of accessibility, interactivity, quality, relevance) to ensure sufficient take-up, use and visitor impact.
 - ii. Intuitive. Very easy and intuitive access for Users from any Point in the map area, with signposting (QR Code and/or other) from Discover Malmesbury, Curator Websites and physical locations (such as Tourist Information Centre, Abbey and other information points - such as signs in retailers, eating places, Town Council notice boards etc).
 - iii. Availability. Users can access the Data 24/7 across the Mapping Area. In addition, data download requirements are realistic in a 4G environment; there is no, or minimum, reliance on Wi-Fi (to be specified with Quote) and Wi-Fi spec requirements (to be specified with Quote) are moderate to low.
 - iv. Uploadable. A location in Virtual Malmesbury for Users to upload to the Platform and have displayed photos of their experience (see also point 19 of AM list, Section 7: 3D and Animated Reconstruction), with editorial/ curatorial control.
 - v. Robust, Granular Point Access. Multiple means of access to Points, such as GPS and QR codes, ensuring the ability to establish points in confined spaces, such as the museum as well as in close proximity outdoors. In some instances, particularly the Augmented Reality and some Commercial points, an alert that a user is by a Point can be sent to the User (Near Field Communication/ Beacon/ Proximity Marketing concepts), subject to complexity and cost.
 - vi. Display Accessibility & Preferences. The ability for Users to access/ see Data displays at any Point taking reasonable account of disability and viewing preferences. Compliance with <https://www.webcredible.com/blog/disability-discrimination-act-dda-web-accessibility/>

- vii. Full Data Access. A Project Database set up approach that enables Users to access most if not all Data that is to be shown on the Platform without leaving the site.
- viii. Printable Maps. The ability to print attractive maps from the Project Database showing selected Points and selected Data.
- ix. Integral QR Reader. Access to QR reader app in each mobile platform, with links to the app stores in the site, as a minimum; embedded QR code reader preferred, subject to complexity and cost.
- x. Attractive & robust QR code symbols that stimulate interest whilst remaining in keeping with Malmesbury.
- xi. Device Compatibility. A web application/ site optimised for any device i.e. phone, tablet or computer. No obstacles to later (Phase 2) scaling/ development into an iOS/Android app.
- xii. Security. Security of access to the Project Database with the ability to limit Curator access rights to specific points or pieces of Data (for example a retailer/ supplier may be able to edit only one or two specific points of Data, for example, post a special offer), with an optional mechanism for prior upload approval.
- xiii. Point Management. The ability to add points anywhere in the map(s) easily and intuitively. An example of the likely history points in the central part of Malmesbury is shown in Attachment 1. It is not unreasonable to assume one point per building in the town centre - circa 400 - plus a number of open air points and numerous points inside the Abbey and Museum.
- xiv. Analytics. The ability to report User contacts on the Project Database by Point, Data item, Layer and time so usage of Virtual Malmesbury can be monitored and tracked; site configured for Google Analytics and or Proximity Marketing responses as appropriate.
- xv. Feedback. The ability to get feedback from Users on their experience and suggestions via a link to Survey Monkey/Getfeedback form or other suitable alternative.
- xvi. Secondary Presentation. The ability to create sequences of Data that can be shown at a fixed Point or Points, for example on a screen in the Town Information Centre, a screen in the Museum, and a screen in the Abbey (with the ability to add screens later (for example in the Abbey and at The Old Bell).
- xvii. Tailored Access. The ability to manage user access to Data so that more AR material can be accessed in the Platform in Malmesbury than outside of Malmesbury.
- xviii. Curator Support. A recommended template/ development path identified for each Curator website to adopt to enable the development over time of maximum synergy and collaboration between Curators, the best ability to provide SEO information about topic areas to Users who may be attracted to visit Malmesbury, and to provide information in a format which may be linked, in due course, directly to the project database.
- xix. These sites include:
 1. Discover Malmesbury: <http://discovermalmesbury.life/>
 2. Malmesbury Town Council: <http://www.malmesbury.gov.uk/>
 3. Malmesbury Civic Trust: malmesburycivictrust.weebly.com/
 4. Malmesbury History Society: www.malmesburyhistorysociety.org.uk/
 5. Friends of Malmesbury Abbey: No current site
 6. ANO x 2: Average of above
- xx. Sustainable Costs. Capital and associated implementation expenditure is in line with or below bid limits. Ongoing revenue costs to be as low as possible and at a sustainable level. Accepted quotes to be clear about expected ongoing revenue costs.
 1. Specified and minimal ongoing revenue costs (hosting/ maintenance/ user support etc).
 - a. Project/ Platform URL's, and Virtual Malmesbury IP and associated rights and commercial exploitation rights to be owned by Malmesbury Town Team (or ceded to Malmesbury Town Council in the event Malmesbury Town Team is wound up).
- xxi. Platform Supportability. Operating the Platform does not require continuing professional technical support. There are no fixed essential software upgrade points requiring further capital spend for continuing operation.
- xxii. Software Sustainability. The use of sustainable, preferably open source, software. The working assumption is Open Street Map (with hosting our own map tiles), Django with

Leaflet, Wagtail as the content management system and a project database based on PostgreSQL.

- xxiii. Content Provider Support. The input template/ web form/ protocol for content providers to be intuitive and easy to use while conforming to the design of the site and maintaining reasonable security. As a possible Phase 2, the development of live data linking from partner sites.
- d. **Recommend/advise on hardware equipment required:**
- i. 4 x 42-inch compatible screens (2 x Town Hall Tourist Information Centre, 1 x Museum).
 - ii. 2 x 32-inch compatible screen (1 x Museum, 1 x Abbey).
 - iii. 6 x 3D viewers (3 x Museum and 3 x Town Hall Tourist Information Centre)
 - iv. Hot spot Wi-Fi
 - v. Trail selection booth and printer (Town Hall Information Centre)
- e. **Using the appropriate software** (i.e. Revit, 3DS MAX, Cinema 4D, Maya, Unreal/Unity) to create different AR points of the abbey exterior, interior and route from abbey to museum
5. Further visual reference can be found on GoogleDrive 00_TVPP/MalmesburyAbbey/ (shared on this link: <https://drive.google.com/open?id=0BxIPcMTCU16rSkxzLWNJdlR6cjQ>) and Pinterest board 'Malmesbury Abbey'

TARGET AUDIENCE | *who are we trying to reach?*

Visitors to Malmesbury, local, national and international. History organisations, school groups and local community groups.

ATTITUDE | *style and tone*

Historical with modern aspects for easy navigation on each platform.

MESSAGE | *what is the key idea to be remembered?*

The key concept for the Virtual Malmesbury project is for a multi-media interactive experience consumed by visitors via their own hand-held devices providing historic, cultural, leisure and commercial information related to specific (geographic) points.

Information content will range from simple text and external links, through audio/video clips, to significant augmented reality (AR) elements.

Information is managed in logical 'layers' related by theme (e.g. Saxon history, King Athelstan, current Arts & Craft scene), enabling trails to be created that tell a 'story' by a series of connected points. Additionally, at any given point, users will be able to access information across all layers (thus allowing, for example, someone following the 'Saxon story' around town to 'see' later history, forthcoming music events, commercial offers related to a location).

It is important that information content and layers can be created and maintained by the local volunteers (rather than relying on continuous external assistance). This is necessary to foster the local engagement/ownership to ensure relevant, ever-developing content and avoid unsustainable cost.

Additionally, a selected subset of the information should be available remotely attract visitors and to enable pre-visit planning, including appropriate linkage to other tourist/regional resources (e.g. cycleways, Visit Wiltshire/ Discover England).

DELIVERABLES & FORMAT | *describe key pieces to be produced*

A multi-media interactive application, available on a variety of platforms, aspects of content also available through the use of AR and VR via QR Codes and waypoints to include a mix of animation, drone footage and stills.

3D virtual re-constructed abbey and areas of the town centre.

SCHEDULE | *projected timeline, important dates, deadlines, etc.*

- Start date - May?
- 3 months - to be completed by ?
- Feedback from TVPP by ?
- Amendments for final outputs: 5-10 days depending on level of amendments
- Maximum of 3 months' work in total?

BUDGET

To be discussed in more detail with regards to costings/time/skills and experienced team members for the different areas listed above. Initial proposed budget:

PACKAGE 1	The creation of the Virtual Malmesbury Platform in accordance with Key Technical Requirements. This is all points in 4 above.	14,300
PACKAGE 2	Partner website template configuration and creation of x 4 template curator sites.	1200
PACKAGE 5	The creation and operation of a Town wide Wi-Fi hotspot	4600
Packages 1,2,5 total	Working with Virtual Parks, University of Winchester's CEDI takes production lead for these packages	20100

COMMENTS

The organisations who are directly involved in implementing, and subsequently managing and curating Virtual Malmesbury are:

1. Malmesbury Town Team
2. Malmesbury Town Council (principally the Community and Town Promotion Committee):
3. Athelstan Museum
4. Malmesbury Civic Trust
5. Friends of Malmesbury Abbey
6. Malmesbury History Society

It is expected that other local organisations will become directly involved when the platform is established. These are likely to include the Thomas Hobbes Society, local arts and crafts groups, local retailers, hospitality, service and goods providers, organisations such as the Ramblers, Malmesbury River Valley Trust, Cycling groups, schools, youth groups, etc., and the Commercial community; retailers, producers and service providers.

Virtual Malmesbury IT and Technical Platform - definition of terms used:

Mapping Area:

- **Fine Detail:** The area bounded by:
 - North to South: From the entrance to the Station Yard car park entrance by the Co-op to Waitrose.
 - East to West: By-pass to Foxley Road going over Truckle Bridge.
- **Lesser Detail:** To be able to navigate people round the Bridges Walk and other footpaths coming into town, so be able to cover the area out to Shipton Moyne, Sherston, Brokenborough, Lea, Corston, and Charlton to include the White walls walk. We will also want to provide links directly into trails produced by recognised cycle clubs etc.
 - We will also want to show some wider cycling routes centred on Malmesbury - tbc. Most likely this will be by providing links directly into trails produced by recognised cycle clubs etc.
- **Long distance trails:** The ability to show longer distance trails to Malmesbury, such as Doulting to Malmesbury (St Aldhelm), Gloucester to Malmesbury (Athelstan), Littleton on Sea to Malmesbury (Abbey), and we will want to show connections with the Great West Way corridor (Visit England project along the A4) as it develops

Platform: The combination of User Interface, Points, Data and Links through the Project Database and the Project Data to Curators resulting in a great User Experience.

Project Database: The Database holding the Data which may be accessed by users.

Users: Individuals who are

- seeking information which may lead them to visit Malmesbury
- accessing information while visiting or living in Malmesbury
- accessing information following a visit to Malmesbury

Curators: Owners of Data shown via the Project Database.

Curator Websites: The websites operated by Curators from which Data shown at designated Points is accessed via the Project Database.

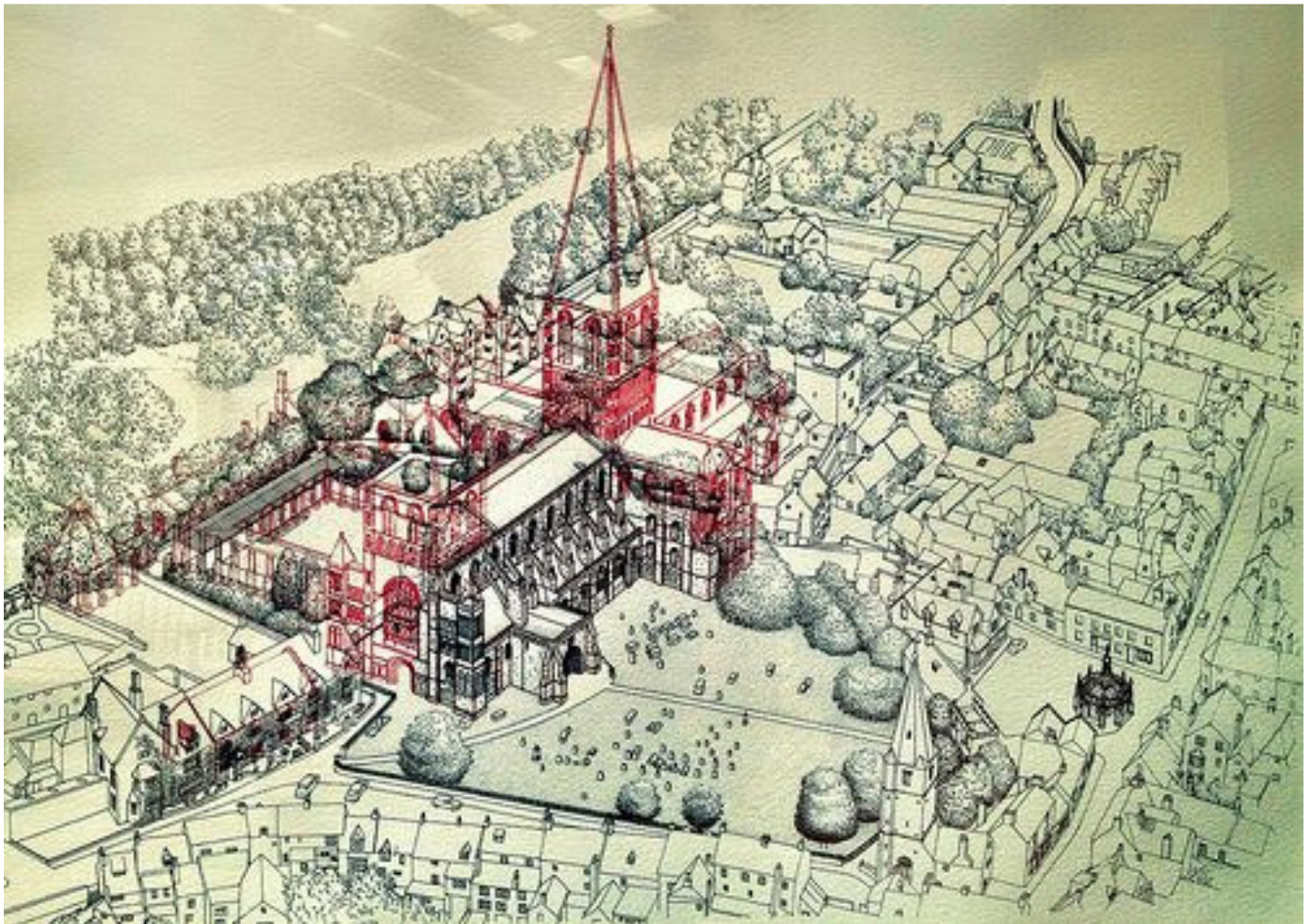
Links: The Links between Points and Data held in or via the Project Database.

Points: The points/ locations on the map or maps where Data can be accessed. Each Point to be capable of allowing access to one or more Layers and to be linked with a selection of other Points.

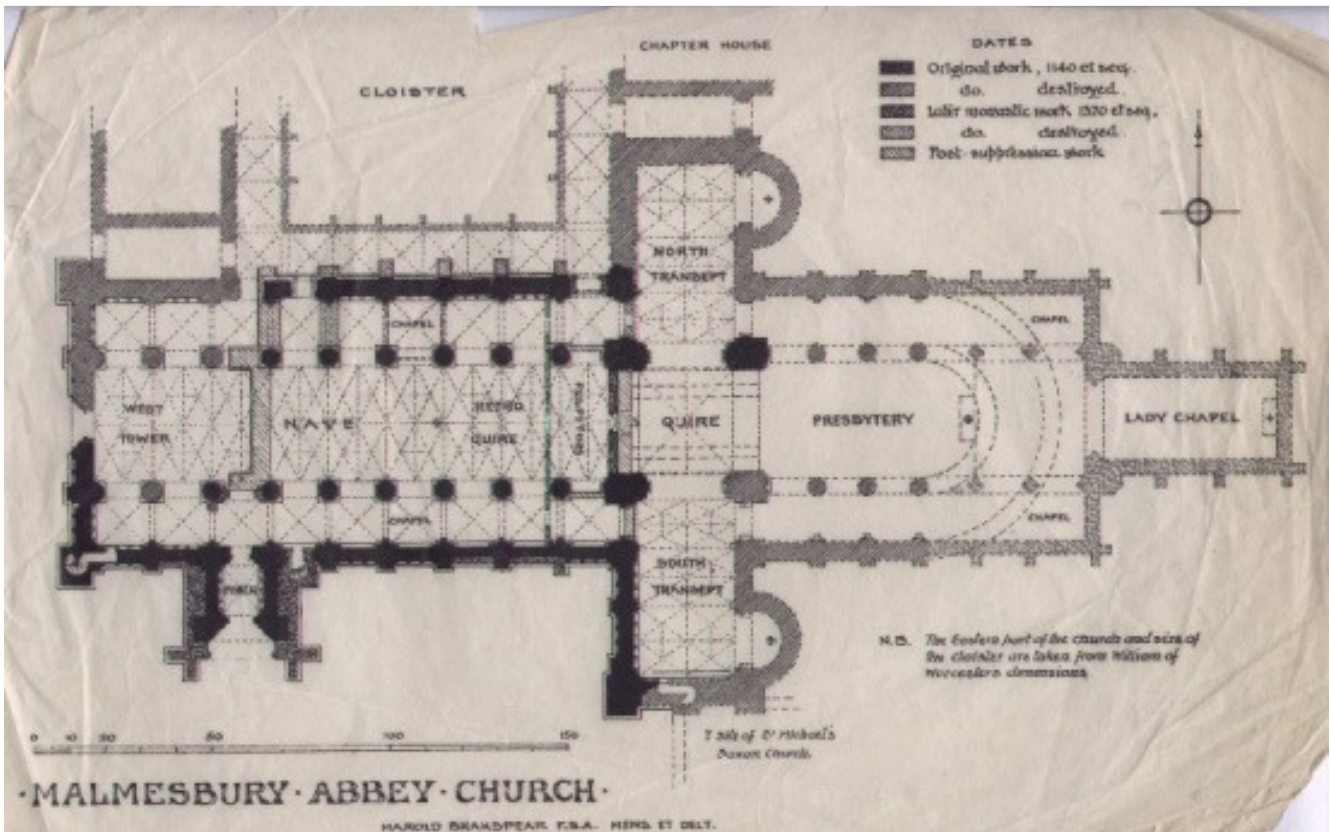
Data: Can be any of the latest augmented reality, photo, video, spoken word, original document, text, by children, by specialists, by vox pop, by special offer ...

Layer: A selection of Points joined together by a common theme (for example, Saxon Trail, Thomas Hobbes Trail, Churches Trail, eating places, retailers etc.) (Note: The likely range for Layers to be accessible per point is between 1 and 5 but 5 must not be a fixed constraint).

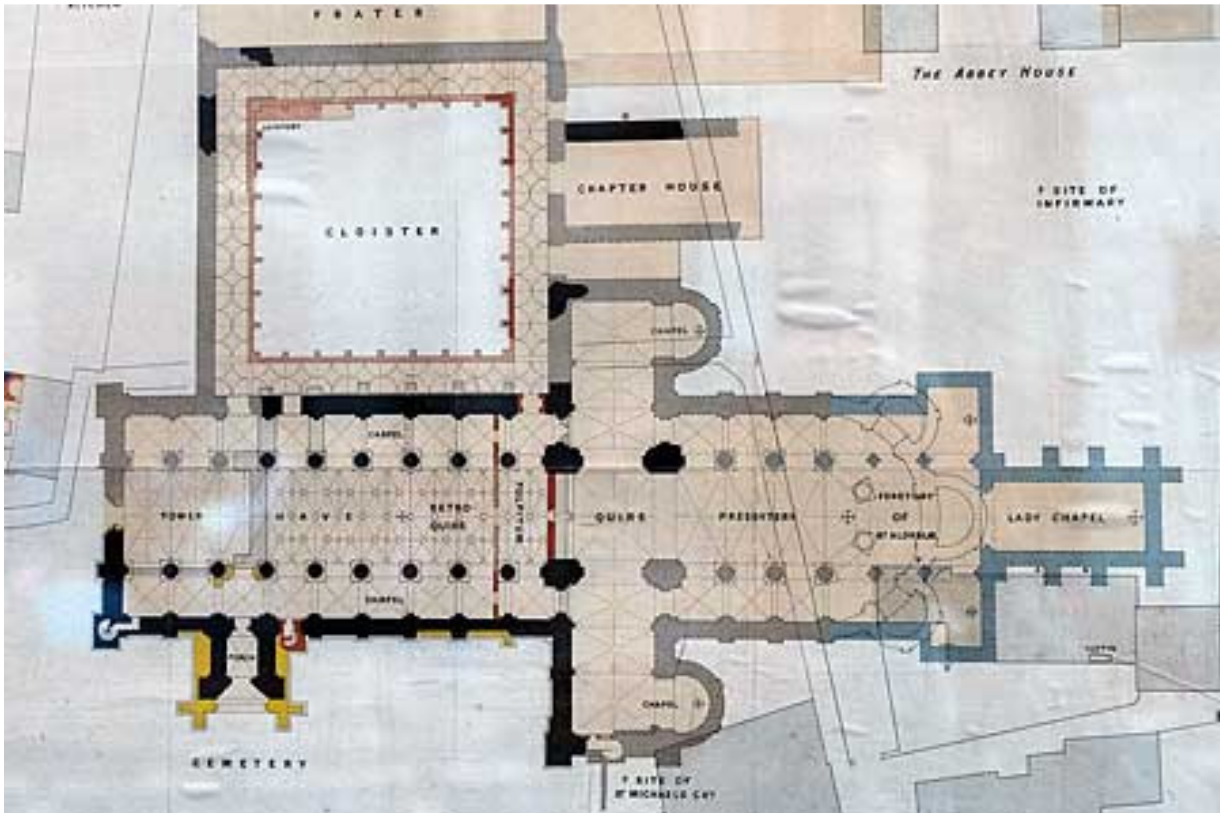
Discover Malmesbury: The website operated by Malmesbury Town Team. <http://discovermalmesbury.life/>



Malmesbury Abbey



Harold Brakspear's Plan of Malmesbury Abbey



Malmesbury Abbey showing Cloister buildings.



Eilmer, the Flying Monk - http://www.athelstanmuseum.org.uk/people_eilmer.html



Stained glass window showing Eilmer, installed in Malmesbury Abbey in 1920 - https://en.wikipedia.org/wiki/Eilmer_of_Malmesbury