



PETERBOROUGH VILLAGE - PITA KAIK STORY AND IMAGE ARCHIVE

13 OCTOBER 2014

GREG ANDERSON, JANISH
DIOLOLA, NATALIE FLATMAN
AND WAFAL HAJRI.

CONTENTS

1.0 Executive Summary

2.0 Introduction

3.0 Theory and Concepts

4.0 Methods

4.1 Collection of Images

4.2 Interviewing Stage

4.3 Technical and GIS

5.0 Results and Discussion

5.1 Image Sourcing

5.2 Interviewing Participants

5.3 Technical and GIS

6.0 Conclusions

7.0 Acknowledgements

8.0 References

Appendices

Appendix A Archive Database

Appendix B Instructions for Google Map Engine Lite

1.0 EXECUTIVE SUMMARY

- **Research Question**

How can we capture and record the memories of the Peterborough Village?

Aims and objectives

- Capture memories and stories.
- To understand and carry out a historical image and document search.
- To develop a geographic interactive database to store information and be accessible by the community and public.

- **Context**

The Peterborough Village, located to the North East of the central business district of Christchurch, is an area of mixed residential, commercial and recreational space. The Canterbury earthquake severely damaged many buildings and spaces within the Peterborough Village area. The area is progressively being developed with the Peterborough community focused on the remediation process of the area. This area has a rich and diverse history in many aspects of cultural, spiritual, residential, commercial and also recreational. The Peterborough Village community group wishes to encapsulate the history of the village within a temporal and spatial aspect to aid with the documentation of transitions that have taken place in the area.

- **Summary of methods**

- Qualitative research was mainly used to obtain information for this report. The archive is based on memory and images. The memory and photograph collection were collated through semi structured interviews and independent research into historical image sourcing.
- Semi structured interviews were held with community residents, business owners and organisation leaders to gain personal memories and stories about the village.
- -Historical image searches and place history searches were undertaken to build information for the archive to show pre and post-earthquake also many major developments of specific sites through time.
- Quantitative research was used early in the research process to look at pre and post-quake statistics in resident numbers and ethnicity. Quantitative research was also used to investigate the formation of the web interface that will be used by residents to access and upload into the archive.

- Key Findings

- The community members of the Peterborough Village are very optimistic about the rebuild and were very helpful with the archive.
- Public access to historical images is limited but applying for use of the images without infringing copyright laws can be worked around with agreements as to how the images are used and also referenced.
- Through the interviewing stage, the archive developed into a more story sharing archive than being mainly focused on historical data.
- When conducting the interviews, the style was free flowing allowing the interviewees to open up, allowing the group to derive personal stories.
- When choosing suitable GIS software to create the interactive archive, the group had to find a map that was user friendly, free and accessible to the public.
- The GIS map had to have multimedia features such as videos, interviews, photographs, links and text information.

- Limitations

- Publishing and copyright
- Development of a user friendly web archive that can be easily accessed and used.

- Future research

Potentially widening the area of the village to encapsulate more of the City centre or the shared knowledge of the archive to other community groups or the wider Christchurch area
Looking into developing an archive generated by a more complex programme allowing more features to the map

2.0 INTRODUCTION

Following the Canterbury 2012 earthquake sequences, many impacts were observed through the Christchurch Central Business District. The area known as Peterborough Village – Pita Kaik, sustained various geotechnical land issues with numerous commercial, residential and historical sites damaged beyond repair.

The instability and changing of the land resulted in many of the residents and businesses having to relocate out of the area, changing both the physical and social dynamics of this mixed urban environment that rests within the flexible perimeter of the Avon/Otakara corridor north to Salisbury Street and from Colombo east across to Barbados Street (Figure 1). Following this the Peterborough community group, consisting of residential and commercial property owners become proactive in the remediation process with projects such as the development of Pete's landing, a transitional park-let which is situated outside the Peterborough Library used to try and engage social interaction.

Other events organised by the Peterborough community group have incorporated a younger demographic with a sustainable art competition and other associated events such as a design challenge for the professionals in the rebuild sector. The group opened up submissions for the architectural designed plans for the proposed new theatre on Kilmore Street, with the competition winner adhering to the guidelines of promoting social interaction to this urban setting.

The aim of this report is to understand as a research group how it is possible to capture and record the memories of the Peterborough Village in an interactive online archive. This report was compiled for the research project that has been undertaken with requests from the Peterborough community group to develop an internet based geographical information system archive system that can be utilized to store and display memories and images.

The research group initially performed an extensive literature review with a focus on urban design, sense of place, archiving, and memories.

An analysis of census data and formulation of graphical representations was used to provide an overview of various trends such as age and ethnicity occupying the area pre and post-earthquake. This process led to the objectives of the research project that included the three phases of capturing of memories and stories, the investigation of historical images and existing documented history and the examination of various geographical information system mapping databases. The methodology for these objectives included a mainly qualitative random snowball sampling along with an archival research of existing information and the assessment of end product user friendly software. The report includes a summary about the conducted interviews of residents, business owners and organisation leaders which were undertaken to gain personal stories and memories about the Village. Image collection and

sourcing is then explained including the process of sourcing from different available resources. Following this is a detailed outline of the process of choosing a suitable geographic information software to generate the online template archive. Limitations and how as a group we overcame the limitations and challenges is included followed by a conclusion of findings is included.

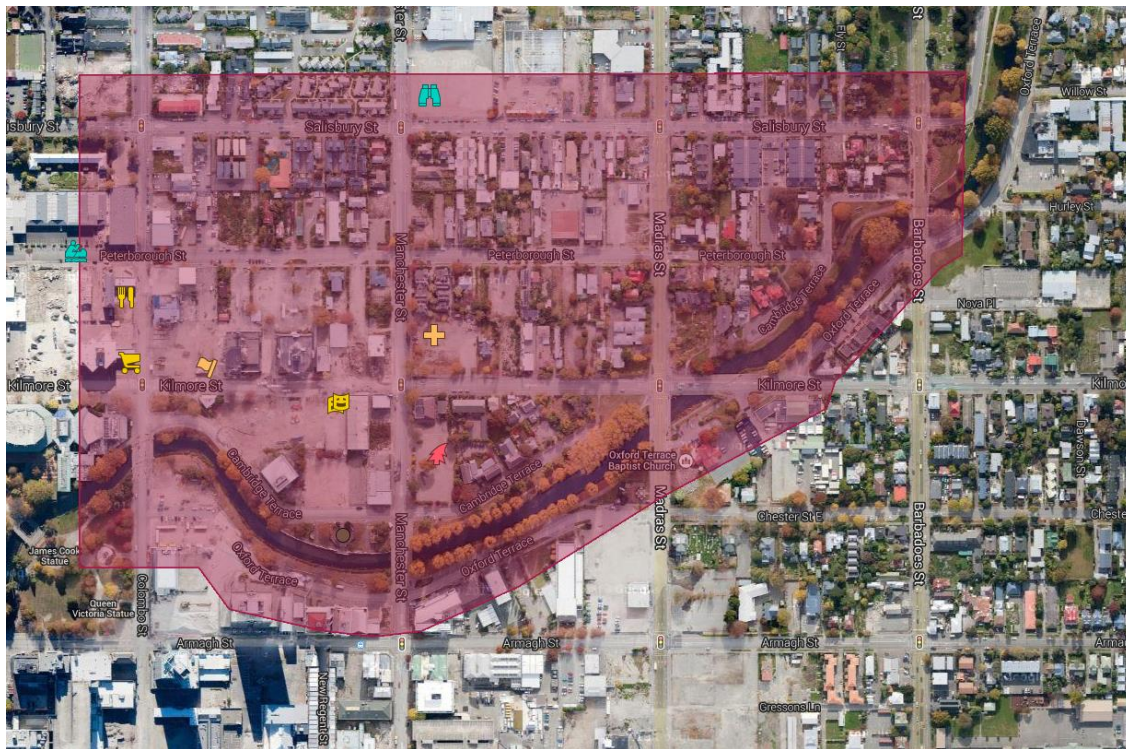


Figure 1. Peterborough Boundary in Red (Google Engine Lite, 2014).

3.0 THEORY AND CONCEPTS

Archiving is a way of preserving historical events in a way in which it records specific parts of time for future research, interest and possible planning. Archiving for this project was based on preserving the Peterborough village area's local history for past and present locals as well as those of the future.

The Peterborough Village community wishes to create an online archive to capture stories and images from the areas in the past. As the area was badly damaged physically and also caused many of the residents to move out of the area, forming a web-based archive map would be a way to commemorate and remember the area's past.

Archiving

Several articles have been written about the importance and also implications that could occur when archiving. Schwartz and Cook, (2002), in the article Archives, Records and Power: The making of modern memory, validates many important points about the archiving process give examples. Initially the authors state that archives are a necessity and extremely important for preserving history. The authors then discuss the importance of preserving memories and that archiving becomes a collective memory of people's stories, perceptions and narratives.

Another article written about archiving by Ketelaar, (2008), discusses the importance for archives to be an open source to the public, allowing information to be accessed and additional content added, Ketelaar then mentions that this process enables differing demographics to contribute to an archive ensuring no bias or important information is left out. Cohen & Willis, (2004), looked at how an aural archive can contribute in restoring the public's memory of their sense of place after the New York September 11 tragedy. This article gave the group insight into broadening up the idea of ways to collect memories from only involving images to including videos, audios and links into the working template.

Sense of Place and Memory

A sense of place can be defined in many ways but for this project the research team has defined a sense of place as having a specific connection to a refined geographic location. Hull et al, (1994), mentions that a sense of place may not be obvious but when a participant is provoked they can realise the sense of place they hold with an area. Hull et al furthermore explains that this theory was tested by surveying residents after Hurricane Hugo in 1989 with intentions of deriving information about what the residents had missed most after the disaster. The larger topic that the authors were attempting to understand was the meanings that the memories held and what values lie within particular places in the communities. This study is relevant to the Peterborough archive due to the process of archiving becoming a memory

and story based archive as opposed to the initial photograph based archive and that a sense of place can be displayed through the archive.

4.0 METHODS

4.1 Collecting images

The retrieval of historical images and also the complications that arose when accessing and utilising the images is detailed below.

The working template initially began as a mainly image based archive with accompanying text which would give a small brief about the business, building or space. The collection of images for the Peterborough village was a quantitative method and was one of the largest research processes within the project. The interviewing process gave us a few specific sites to start the research of historic places. The significant sites were also from a variety of sectors, such as St Luke's church, Johnson's Grocers and the Repertory theatre. By having varying sites for the template, the group attempted to provoke the interest of a range of people and hopefully would encourage others to add to the archive. Accessing images from the internet and books is simple enough but sourcing images that do not have copy or publishing rights attached is the complication. After contacting and discussing our aims of the project to several organisations, the group gained access to photographs of the Christchurch City libraries as well as a few small organisations.

As well as using historical images, the research group decided to re-photograph several sites to show the present state of specific sites. This was accomplished through using camera's and tablets and then uploaded them directly onto the map which proved effective to get around copyright complications.

Every image that was uploaded onto the working archive template was properly referenced by either adding the reference over the image or by attaching a link in the small amount of text that accompanies the image. The group carefully selected the images to represent the change through time and also the essence of the area.

One of the methods that were used to explore heritage buildings from web research is utilizing Google Map and Google Earth images that are link to the street names, which was taken prior to the Christchurch earthquake in 2011. Using Streetview option in Google Map allows the users to navigate and explore the streets through 360 degree street-level imagery. The approach was effective in exploring Peterborough Village in an efficiently timely manner. This resulted in recognizing the Caledonian Hall and the Repertory Theatre, as well as retrieving historical images from different organizations such as Christchurch City

Council, Christchurch City Libraries, University of Canterbury, and Personal Blogs. Permission to copyrights was proven to be challenging in preserving the integrity of the public archive.

4.2 Interviewing Stage

To enable the group to answer the research question of ‘How can we capture and record the memories of the Peterborough Village?’ a brain storming session allowed the group to start researching ways to tackle the project ahead. Firstly the group did a research into New Zealand census data to understand the demographics of the Peterborough area.

Figure 2 below shows the ethnic changes through time for the Peterborough area. A trend of decline in European’s and an increase in both Maori and Asian ethnic groups which could create a more culturally diverse community if the numbers continue change this way over time.

The figure 3 below shows the age demographic changes for the Peterborough area over the past three census’s that were held for Christchurch. An increase in people over the ages of 50 is seen through time whilst a slow decrease of 20-39 year old which could be a result of the earthquake, moving people out of the inner city whilst the older residents may have stayed due to emotional attachment.

Ethnic Group Changes Through Time For Christchurch

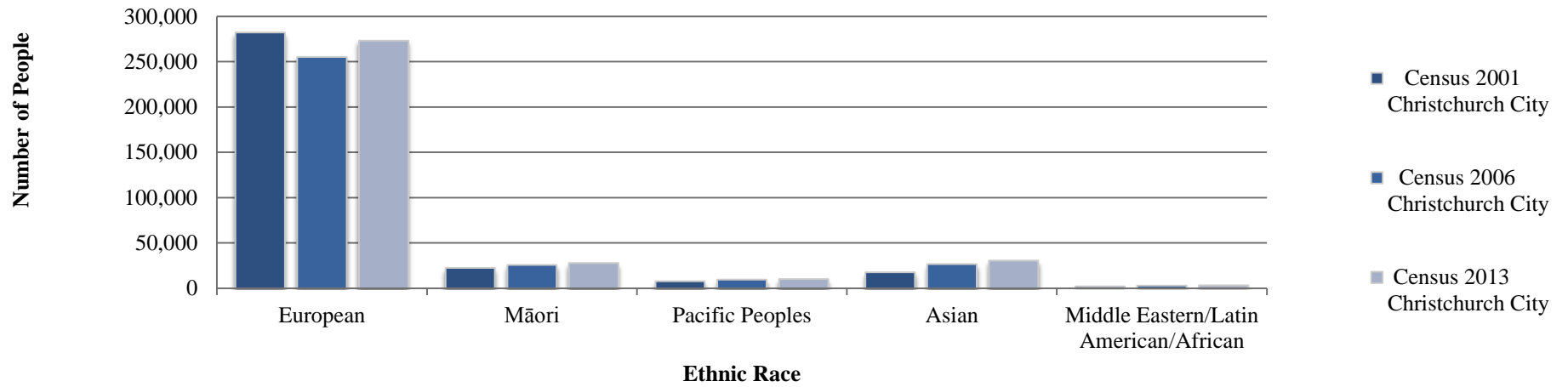


Figure 2 Changes in Ethnic Groups Christchurch

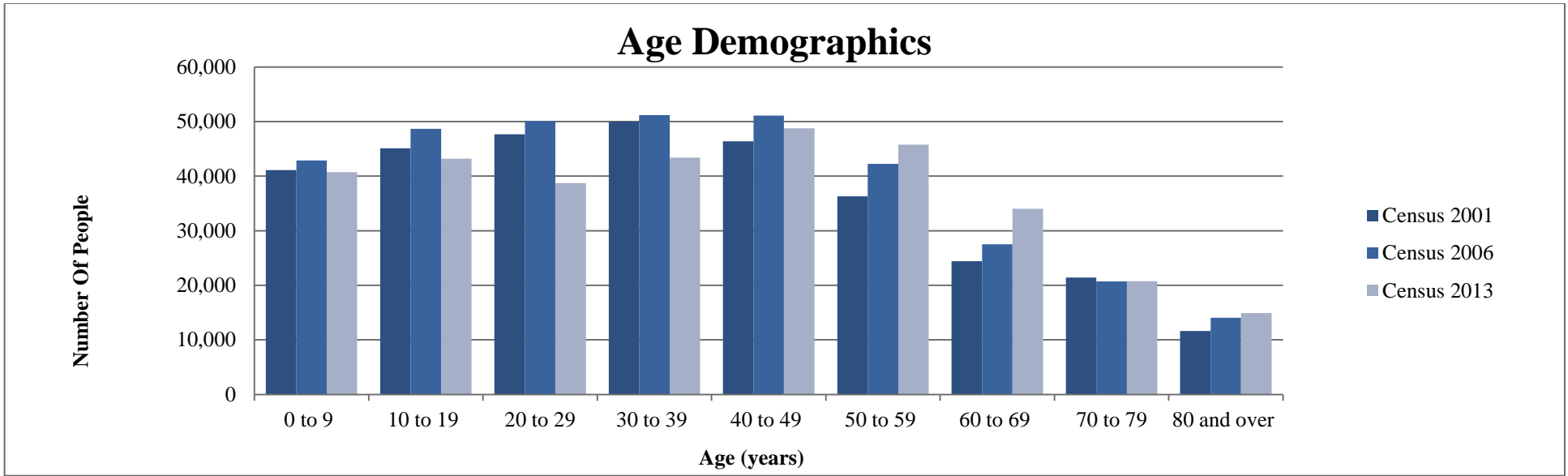


Figure 3 Age Demography of Christchurch

The methodology involved focused on a qualitative interpretation of the data without the involvement of numerical measurements. The gathering of information for the template from individuals was through the use of conducting interviews with residents, business owners and organisation leaders.

The method used to select participants was through the snowball sampling where we obtained a few key names from the community from the community partner. From these few names we held two pilot interviews which allowed the group to understand the interview process before formulating interview questions. The snow ball sampling method allowed the group to start with two key people from the community then asking these participants if they knew anyone from the area that could help with the project. The participants ended up being from a wide range of ages and occupations which granted information from a range of people all with differing views and stories about the Village.

The interviews were held face to face and started off with a few base questions such as how long have they been associated with the area and why did they move into the area. Starting with a few base questions then asking broader questions such as what memories can you specifically remember about the area, allowed a free- flowing style where the participant could open up and share their stories.

The interviewers took into account the external factors that may have influenced the answers given by the participant. For example, it was hypothesised that Peterborough village residents would give positive results. However, some interviewees seemed disinterested and unfortunately was not as cooperative as the group would have the participant to be. Flowerdew, (1997), states that only half of an interview is asking questions, the other half is listening and learning how to respond to the interviewee's answer. Also having open-ended questions gave the respondent the freedom to answer in detail, qualify and clarify their responses that also permitted creativity, self-expression and richness of detail.

4.3 Technical and GIS

Initially, ArcGIS software was used to develop an interactive map for the community. ArcGIS is a geographic information system for managing, analyzing and displaying geographic information. However, when constructing the main components of the map several challenges were encountered, which hindered the progress of importing information into the archive. The base map for the interactive map had to be created first before any information is imported. The base map was downloaded from Koordinates, a New Zealand based company that provides platforms for hosting and viewing geographic datasets. The study area, Peterborough Village, covers six individual Landsat satellite images. The images had to be created in ENVI, a software that is used for analysis and visualization of scientific data and imagery. Using the mosaicking process in remote sensing software (ENVI), the group were able to compile six images into on complete base map. The major challenges faced when using ArcGIS was that the historical and the present day images needed to be geotagged, resulting in tedious and intricate procedures. In addition, the ArcGIS interface

required several complex processes to import images, which was not user friendly for future contributors.

Because of these challenges, other approaches were required to make the public archive user friendly. It was important that using the map required limited experience in web-based mapping tools and that it was free for use by the community. To meet the needs, the group scoped other mapping tools that could accommodate and incorporate all the community leader's requirements.

The list below shows the maps that the group researched

- Meogrpah
- Mapsalive
- Google Map Engine Lite
- Quantum GIS
- Gmap GIS
- Story Map JS
- Open Street Map
- Polymaps
- Bing maps
- Arc GIS Online
- Map box
- iMap Builder online

Each mapping engine was examined and tested on the proficiency of its features. All of the mapping tools above have different capabilities for creating a web-based interactive map. Some of the mapping tools are useful for analysing quantitative data, and others can be used to represent qualitative data. Due to terms and conditions on certain maps, they are only available to use on a 30 day trial. Beyond the due requires payment of an annual fee to gain full access and/or a one off payment is required to gain full access to utilise the map's functions.

Google Map Engine Lite

The mapping tool that was chosen for the group project is Google Map Engine Lite. This mapping program outperformed all the mapping tools in integrating the information needed for the map. It is a web-based map where you can create custom maps to share and publish online.

The features of the map are as follows:

- Ability to draw lines and shapes. In addition, adding place marks on the map.
- Import CSV file, XLSX file, KML file
- Ability to hide or show different layers
- Ability to customize colours, icons and line widths

Furthermore, Google Map Engine Lite allows images, stories and videos to be imported on the map. This is achieved by placing a mark on an area to visually represent the significance of the site and/or share memories to the community. Google Map Engine Lite does not allow images, audios and videos to be uploaded directly from personal files or storage. Images are uploaded first into a photo sharing website called Panoramio to retrieve a URL address for Google Map Engine Lite to recognise and store into the database. Alternatively, images can be searched online to use in the map without using Panoramio. It is ideal that permission is requested before images are to be used in the map to avoid copyright issues. Similar process applies to uploading videos, a URL address is necessary to appear on the map interface. YouTube was used in this group project to retrieve a URL address. Moreover, videos with an existing URL address can be easily embedded into the map without uploading to YouTube.

Precision is mandatory in uploading images and videos as there is no option available to edit the placements of the resources. Both images and videos must be transferred in consecutive manner, this require planning prior to adding the information into the map. What is more, stories that are publish on the map has no limitations on how many characters are entered, therefore the end users can enter as much materials as needed. Google Map Engine Lite permits website links to be activated on a new window, which allows the public users to have access to additional information. Login for the interactive map is linked with Panoramio and YouTube, this means that the administrator will only require to log in once in order to execute a task.

5.0 RESULTS AND DISCUSSION

5.1 Image Sourcing

The outcome of collecting images for the archive template was different than what was expected as the process of image collection had resulted with several limitations. Firstly, some of the interviewees did not wish for their personal images to be collected and scanned which resulted lading for the group to re-photograph the images that resulted in low resolution images.

Secondly the uploading of personal images onto a publically accessible webpage raised concerns of safety to the residents therefore we overcame this problem with the solution of pinpointing and personal photographs and interviews to a common site –the Peterborough Library.

Another limitation was attempting to source images from the interviewees and the attempt resulted in the low resolution and low quantities of images. The group had to then research into sourcing images from public sites and the process of correctly referencing the images was a long process often being passed from person to person. The sourcing and referencing the images was timely and different administrators wished the photographs to be referenced or linked to the sites in differing ways.

Parry and Mauthner, (2004), discuss that copyright is one of the largest complications when archiving any researched materials as it grants the ownership and control over the material. The group did have to overcome one complication when contacting a personal blog site and the owner responded in manner which implied the owner thought the image use was stealing their work. As a group we had contacted the owner asking if it was possible to reference one photograph and adding a link to their site on the working template and the matter was dealt with by talking to the supervisor of the project about the situation and apologizing for the misunderstanding and to explain that aim was not to plagiarize the owners' work, which eventually led to not using the images from the given site.

Furthermore, another way of resolving image collection was done through using google earth and google map which gave a 360 view of the street and also opened options of not only sourcing the location of the images taken but as well discovering the possible sites around the Peterborough Village boundary such as The Repertory Theatre and the Caledonian Hall. The final issue with uploading photographs into a working archive template was resolving the resolution issues while uploading. The photographs that were personally taken and were then uploaded into a URL retrieving site (Panoramio) which is a geolocation-oriented photo sharing website owned by Google. Photos uploaded to the site can be accessed as a layer in Google Earth and Google Maps. Images were able to be obtained through retrieving URL of the images that were taken to be then later on added into the map.

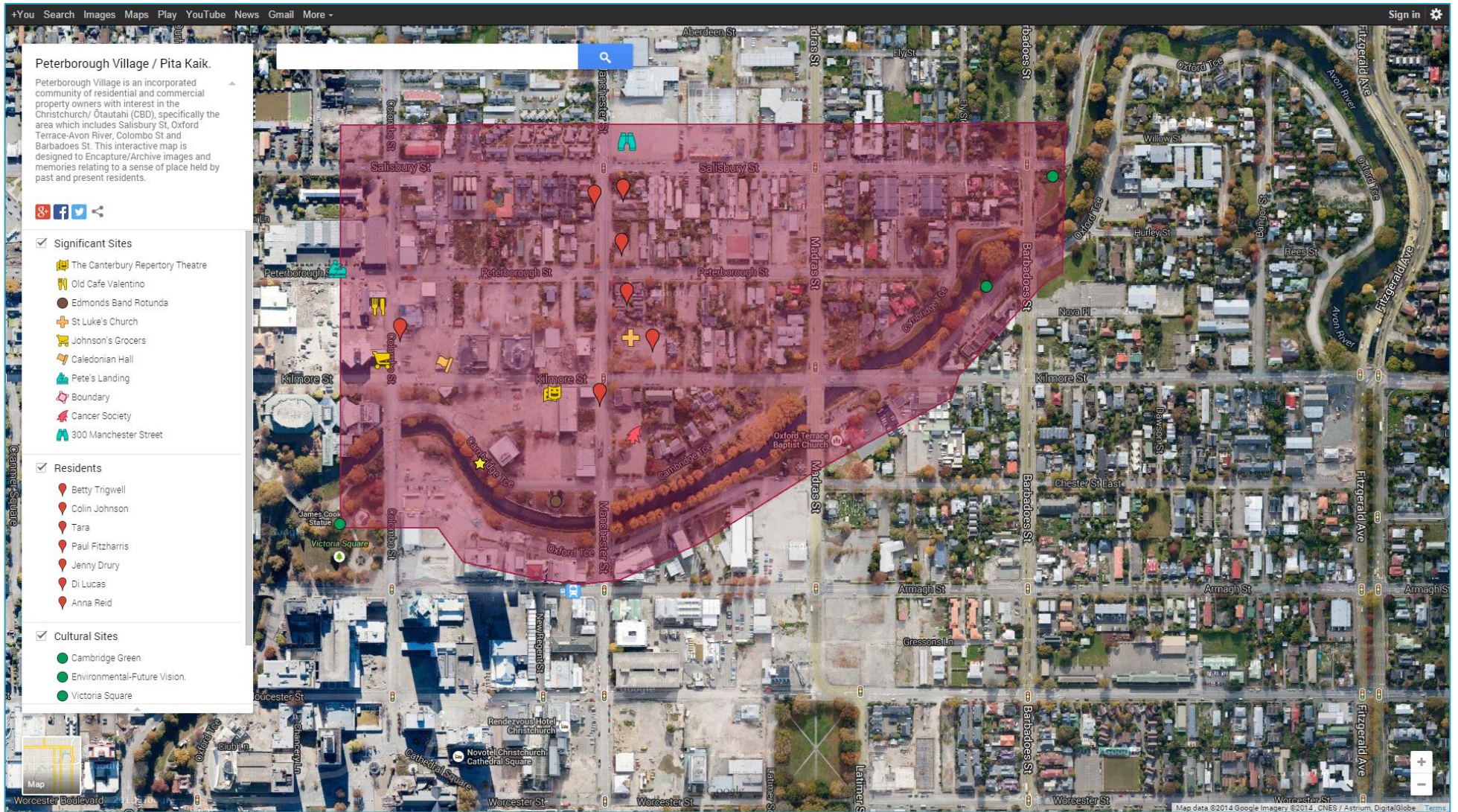


Figure 4: Interactive Map for Peterborough Village

5.2 Interviewing Participants

When the group conducted the series of interviews, the results varied between all the participants. The participants that lived in the area expressed different interpretation to the meaning of ‘sense of place’ in the Peterborough Village. The group explained to the participants the objective of the project for the community to explore, however some of the participants are opposed to the idea of storing memories because most of the significant sites are destroyed by the earthquake. One participant stated ‘what is gone is gone’; the comment shows that the impact of the earthquake event devastated the community. In addition, the attitude towards the end product of the interactive map was not positive.

The limitations of using the snowball sampling method was that the participants involved in this project were suggested by the community leader rather than randomly selected. By using random selection that would have resulted to different interpretation on what is the sense of place in Peterborough Village. Furthermore, the sample size taken for the research consisted of a small group which does not display the diversity and range of interpretation that represents the place.

The rights of the participants were taken into account on what is to be published. By acknowledging the intellectual properties of the contributors, members of the group had to confirm that information was approved by the participants.

5.3 Technical and GIS

The end product of the map shows the interface of Google Map Engine Lite and how it is presented to the public see Figure 1. The polygon coloured in red illustrates the boundary of Peterborough Village. The map consists of four layers; significant sites, residents, cultural sites and educational resources. Each layer has its own distinct design to distinguish the difference between all the layers in the map see Figure 5. The layers are located on the left side of the map with additional information about the Peterborough Village. Furthermore, layers can be deactivated to explore specific section of the map; this enables the map to illustrate the selected layers’ icons only.

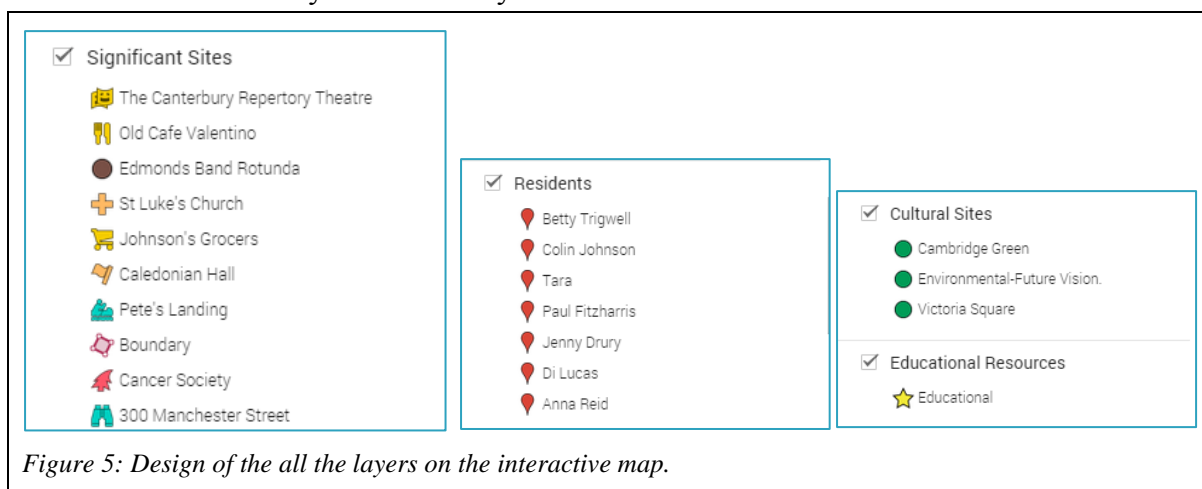


Figure 5: Design of the all the layers on the interactive map.

The information gathered for each layer of the interactive map, excluding all referenced historical and present day images, is listed in Appendix A. The process of adding information into the map is easy to follow and, consequently, the map visually engaging for the public to explore. The steps of importing images, videos and stories into the archive are shown in Appendix B.

The search bar feature of the map enables the user to enter the exact address to locate specific site on the map. The result is added into the base map, highlighted light green in as shown in Figure 6. The search feature is useful for the editor to locate the precise address in order to place a marker on the target site.

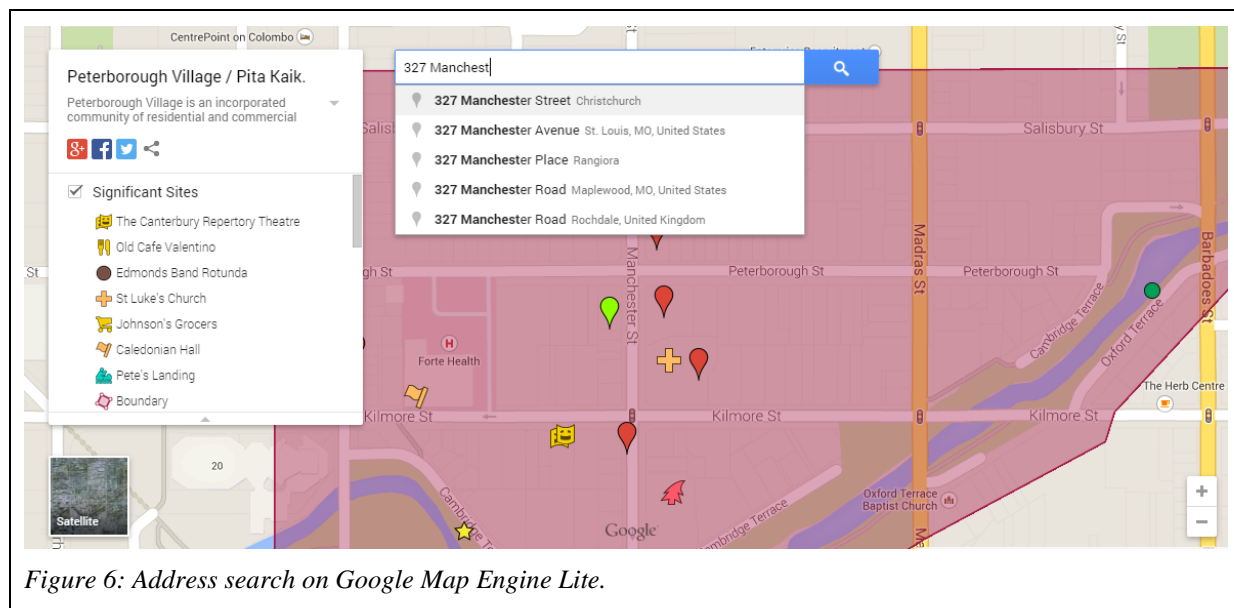


Figure 6: Address search on Google Map Engine Lite.

Figure 7 below shows the interface of the map when an icon is selected. The selected icon is highlighted by an arrow pointing to the location on the map. The name, descriptions, website links and images are displayed clearly.

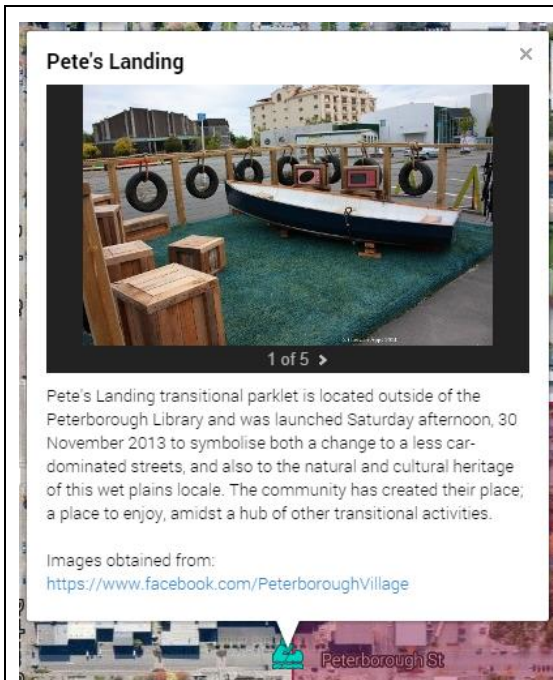


Figure 7: Image interface in Google Map Engine Lite

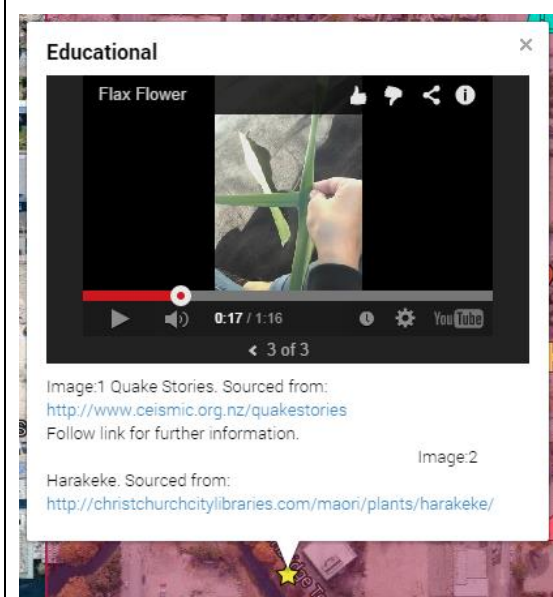


Figure 7: Video interface in Google Map Engine Lite

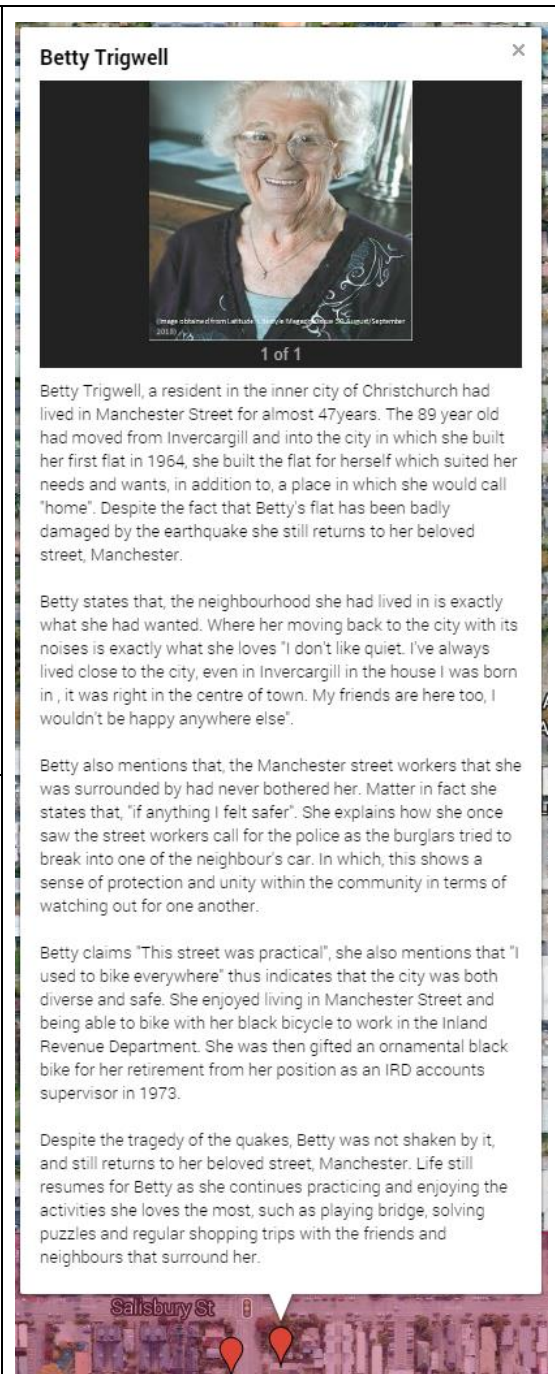


Figure 9: Stories interface in Google Map Engine Lite

The accommodation space for the images and the videos has the same display extent; consequently exhibiting common visual settings for the map see Figure 8. The information gathered from the each participant was uploaded under descriptions. The length of the stories does not affect the space for the description section; this means that the user can enter unlimited text to portray the memories and stories of Peterborough Village see Figure 9. The participants can choose to either share their stories with or without a portrait of themselves.

There are two different types of base map available from Google Map Engine Lite. The option allows the user to switch from generic map to satellite imagery; the interactive map displays the post-quake setting of Peterborough Village shown in Figure 10.

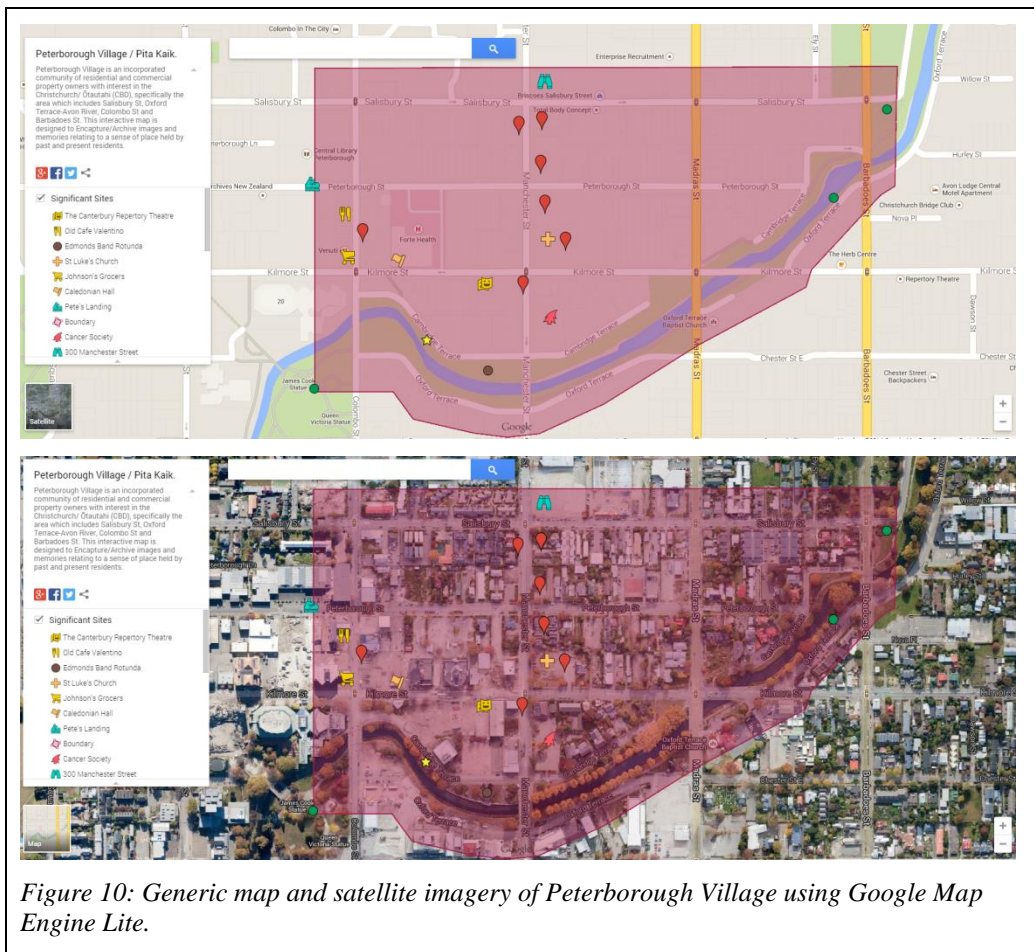


Figure 10: Generic map and satellite imagery of Peterborough Village using Google Map Engine Lite.

The initial focus was for everybody to have access to the map so that participants could add their own images, stories, and other information. However, the group decided that it was better to have some administration system to prevent data being either deleted from, or

inappropriate information being added into, the public archive. The administrator will have the authority to assign access level to other users to maintain the public archive. Access rights are designed for each user so that information can be added into the map without having the full access to the administration system. Similarly, the level of link sharing will determine the levels of restrictions of users see Table 1.

Table 1: Access and sharing settings for the interactive map for the Peterborough Village (Google Map Engine Lite, 2014).

Option	Access & Linking Rights
1	Public on the web - Anyone on the internet can find and access. No sign-in required.
2	Anyone with the link - Anyone who has the link can access. No sign-in required.
3	Specific people - It is only shared with specific people.
Access	Anyone (no sign-in required) - Anyone that access the map with no sign-in required can be set to either 'Can View' or 'Can Edit' options.
Option	Sharing Settings
1	Editors are allowed to add people and change the permission. - Editors have full control to add and remove people and change the visibility of the item. Only the owner can delete the item.
2	Only the owner can change the permissions. - Editors cannot add or remove people or change the visibility of the item.

The main editor of the map will have to find a system to gather information from the public to upload images, stories, videos and additional information into the interactive map. It can be achieved by setting procedures for participants to place a request via email with the information that they would like to share to the public. Alternatively, cloud storage service can be used to allow photos, videos and documents store online for public sharing.

The memories and stories of Peterborough Village are represented to the community by using the features available in Google Map Engine Lite. The working template of the public archive appears to be user-friendly, and the interface is concise.

6.0 CONCLUSIONS AND FUTURE POSSIBILITIES

This report was compiled to inform the process of creating an online interactive story and memory sharing archive for the Peterborough Village.

The final product of the geographical information system database that is to be presented to the community group has evolved into a multimedia archive that incorporates both the images and memories of past and present individuals that occupy the area. The research phase of the project used both qualitative data collection through interviews and image collation incorporating also the use of quantitative data through the creating of the online archive.

Through the development of this online archive, residents, business owners and organisations from within the Peterborough area will be able to access, add and record memories with associated historical events that will continuously occur over time.

The possibilities for the future of this working template once handed over to the community group is the potential to widen the perimeter of the village to encapsulate more of the City Centre or sharing the knowledge of the formulation of the archive to other community groups in the wider Christchurch region. There is also a possibility that the map could be developed into a more complex archive using a different mapping programme, allowing the user to create more features within the map.

7.0 ACKNOWLEDGMENTS

We as a group wish to extend our many thanks to the following individuals. Their help and support toward this project was great and the outcome would have not been so positive without them.

- Di Lucas – our community partner
- Professor Eric Pawson from University of Canterbury – our mentor throughout our entire project
- Quakestories for allowing us to link to their website and the future support with the website
- Christchurch City Libraries for allowing us to access and use their historical images and information in the online archive
- All of the interviewees, without the willingness of the participants we would not have been able to create a story focused archive
- Manaia Anderson for allowing her video of the flax flower making to be uploaded onto the archive to give a range of media on the site
- Justin Harrison from Canterbury University for his technical support throughout the project
- All other smaller organizations or sources which we utilized to create the archive

8.0 REFERENECES

- Cohen, E. & Willis, C. (2004). *New Media & Society. One nation under radio: digital and public memory after September 11.* Volume 6. Issue5. pp. 591 – 610.
- Cragan, J. Wright, D. & Kasch, C. (2009). *Communication in small groups: theory, process, skills.* United Kingdom. Cengage Learning.
- Flowerdew, R. & Martin, D. (1997). *Methods in human geography. A guide for students doing research projects.* Addison Wesley Longman Limited, Harlow.
- Hull, R.B. Lam, M. & Vigo, G. *Place identity; symbols of self in urban fabric.* Landscape and urban planning, pp. 109-120. Volume 28. Elsevier.
- Ketelaar, E. (2005). *Sharing; collected memories in communities of records.* Archives and Manuscripts. Volume 33. Pp. 44-61.
- Parry, O. & Mauthner, N. S. (2004). *Whose data are they anyway? Practical, Legal and Ethical Issues in Archiving Qualitative Research Data.* Sociology, 38, 139-152.
- Schwartz, J. & Cook, T. (2002). *Archives, records and power: the making of modern memory.* Archival Science. Volume 2. Issue 1-2. Pp. 1-19. Springer.

APPENDIX A – ARCHIVE DATABASE

DATABASE TABLE – SIGNIFICANT SITES

	Name	Description
1	The Canterbury Repertory Theatre	<p>The hall designed by Francis Willis and was based on the Spanish Mission style which inspired the style of New Regent Street. The hall was founded by Thomas Edmunds who also founded the nearby Band Rotunda who originally used the hall as the Radiant Health Club in 1929 which could be used by theatre groups and dance clubs for performances.</p> <p>The Canterbury Repertory Theatre also performed at the hall and took over its residence permanently in 1930.</p> <p>Due to the Canterbury Earthquake sequence the theatre was badly damaged in the initial September 4th earthquake, receiving a further blow on February 22nd. While the building may be gone, the Society remains as strong and engaged as ever.</p> <p>http://www.repertory.co.nz</p> <p>https://www.facebook.com/CHCHRepertory/timeline?ref=page_internal</p> <p>Images retrieved from: - commons.wikimedia.org - webmatters.co.nz</p>
2	Old Cafe Valentino	<p>Cafe Valentino is a vibrant Italian restaurant and Christchurch dining institution serving Chef Karren Gray's scrumptious, soul-satisfying take on Italian food.</p> <p>The restaurant is now relocated in St Asaph St.</p> <p>http://cafevalentino.co.nz/</p> <p>Images retrieved from: - http://www.panoramio.com/user/1093201?with_photo_id=46603610 - commons.wikimedia.org</p>

3	Edmonds Band Rotunda	<p>The rotunda was founded by Thomas Edmund who was passionate about brass bands and their expansion after the military presence in New Zealand in the 1850's.</p> <p>The octagonal rotunda which was 12 meters high was designed by Victor Hean and opened on the 11th of November, 1926.</p> <p>The rotunda was converted into a restaurant in 1986. The rotunda was badly damaged in the 2011 earthquake and currently is in the planning to be restored.</p> <p>http://christchurchcitylibraries.com/Heritage/Publications/ChristchurchCityCouncil/ArchitecturalHeritage/LegacyofThomasEdmonds/</p> <p>http://www.christchurchdailyphoto.com/2008/04/03/edmonds-band-rotunda/</p>
4	St Luke's Church	<p>St Luke's in the City 1859 - 2011 (Anglican Diocese of Christchurch)</p> <p>The church was designed by Julian Cyril Mountfort (1852-1920) and completed in 1909. It was a competent example of early English Gothic Revival church of substantial scale. The original wooden church was demolished due to being too small and the foundations had also started to sink due to a stream which was run underground.</p> <p>The building was closed due to earthquake damage on 4th September 2010. It was being prepared for major seismic strengthening and repairs, however suffered terminal damage on 22nd February 2011. Photo number 6 representing a garden made from stones of St Luke's Church in memory of lives lost in the earthquake.</p> <p>http://www.stlukesinthecity.org.nz/</p>
5	Johnson's Grocers	<p>Johnson's Grocers - Wide Range of Imported Foods</p> <p>The original store (founded in 1911) in Colombo Street was a spectacular, eclectic display of British, American and European grocery goods. Now based in the Re:START mall. The owner of this family-run business, Colin Johnson, has worked in the store every day since he left school, and thanks to Mr Johnson this little</p>

		<p>place hasn't lost its charm.</p> <p>http://www.neatplaces.co.nz/place/johnsons-grocery/</p> <p>Images retrieved from: http://localvanguard.blogspot.co.nz/2009/12/if-they-dont-have-itthey-dont-make-it.html</p>
6	Caledonian Hall	<p>The Caledonian Hall was significant due to its links to the Caledonian Society, an example of an organisation established by immigrant groups in order to maintain their links with their place of origin.</p> <p>Images retrieved from: http://www.canterburycaledonian.org.nz/ http://www.pipesdrums.com/article/page/41/</p>
7	Pete's Landing	<p>Pete's Landing transitional parklet is located outside of the Peterborough Library and was launched Saturday afternoon, 30 November 2013 to symbolise both a change to a less car-dominated streets, and also to the natural and cultural heritage of this wet plains locale. The community has created their place; a place to enjoy, amidst a hub of other transitional activities.</p> <p>Images obtained from: https://www.facebook.com/PeterboroughVillage</p>
8	Boundary	<p>http://www.peterboroughvillage.org.nz/</p>
9	Cancer Society	<p>The Canterbury West Coast Division of the Cancer Society once occupied this area of Manchester Street. The building was used to hold gatherings and support meetings for families and friends of patients undergoing treatment.</p>
10	300 Manchester Street	<p>Prior to the 2011 earthquake the section of 300 Manchester street, which corners Salisbury was home to the National library building. The National Library occupied the premises since 1991 and shared its premises with an Asian food warehouse in the later years. The building was built on the premises in 1970 and was commissioned by Blackwall Motors and designed by Christchurch architect Maurice Malhoney of Warren and Mahoney. After the cars sales moved out a furniture shop took</p>

	over and then became Dingwall and Paulger Christchurch grocery wholesalers. Prior to the national library building on 300 Manchester Street was the site for Perfection Ice Cream Companies factory. The factory also had a 50-person capacity air raid trench which was built before World War 2.
--	--

DATABASE TABLE – RESIDENTS

	Name	Description
1	Betty Trigwell	<p>Betty Trigwell, a resident in the inner city of Christchurch had lived in Manchester Street for almost 47years. The 89 year old had moved from Invercargill and into the city in which she built her first flat in 1964, she built the flat for herself which suited her needs and wants, in addition to, a place in which she would call "home". Despite the fact that Betty's flat has been badly damaged by the earthquake she still returns to her beloved street, Manchester.</p> <p>Betty states that, the neighbourhood she had lived in is exactly what she had wanted. Where her moving back to the city with its noises is exactly what she loves "I don't like quiet. I've always lived close to the city, even in Invercargill in the house I was born in , it was right in the centre of town. My friends are here too, I wouldn't be happy anywhere else".</p> <p>Betty also mentions that, the Manchester street workers that she was surrounded by had never bothered her. Matter in fact she states that, "if anything I felt safer". She explains how she once saw the street workers call for the police as the burglars tried to break into one of the neighbour's car. In which, this shows a sense of protection and unity within the community in terms of watching out for one another.</p> <p>Betty claims "This street was practical", she also mentions that "I used to bike everywhere" thus indicates that the city was both diverse and safe. She enjoyed living in Manchester Street and being able to bike with her black bicycle to work in the Inland Revenue Department. She was then gifted an ornamental black bike for her retirement from her position as an IRD accounts supervisor in 1973. Despite the tragedy of the quakes, Betty was not shaken by it, and still returns to her beloved street, Manchester. Life still resumes for Betty as she continues practicing and enjoying the activities she loves the most, such as playing bridge, solving puzzles and regular shopping trips with the friends and neighbours that surround her.</p>

2	Colin Johnson	<p>Johnson's Grocery is an old fashioned grocery store that has been in business since 1949. The grocery store was moved from Colombo Street to Re-start Mall after the 2011 February earthquake. Colin, whose family owns the Johnson's grocery, has been working in the store since 1957 and he states that he enjoyed growing up in his father's business. The Johnson's Grocery store is your typical old fashion store that contains of goods from all around the world. Johnson's Grocery has had various nationalities come through the store over the years British, German, Italian, French and many more. Colin states that as he grew up working in the store he has witnessed changes in demographics from various ages to different nationalities. The changes in the living of Peterborough Village area has transitioned from houses and offices to commercial and apartment buildings.</p> <p>Despite the damage that the earthquake caused, Colin returns as he is enthusiastic about running the family business and comments, "It happened and we have to get on with it"</p>
3	Tara Daellenbach	<p>Tara moved from Cashmere to St Luke's close in Peterborough Village at the age of 13. She thoroughly enjoyed living close to town as she was able to walk anywhere and knew her way around town so well that on rainy days she could shelter the entire way home from the bus exchange. Tara loved the apartment lifestyle because it was so close in proximately to town. She also shared the memory of the community interaction through the building she lived in would hold barbeques which encouraged social interaction. Tara states that the people living in the area give the area the sense of place. Tara comments that she liked having the mix of residential and commercial buildings in the area because 'There were always people around.' She feels that it is not the buildings or places within the area that gives it a sense of place but the people that were within the area.</p>
4	Paul Fitzharris	<p>Paul Fitzharris, a former Senior Police Officer in Christchurch, lived in the Peterborough area for over 20 years. Paul saw changes in the area during that time. Paul states that the people of the Peterborough were community minded. Rod Donald, who was the first leader of the Green Party, established the Peterborough Community, a group of a number of houses in Peterborough Street which fostered a community feel. They had a beehive on their property from which he had the privilege of tasting honey from. It was surprising to him to</p>

		<p>find honey producing bees so close to the city centre. There was a great diversity in the age of the people who lived in the area, the range of age and occupations gave the community a sense of security. Paul also stated that the community was united, despite the differing income levels of persons that lived in the area. He also described how convenient and easily accessible the location of the area was to restaurants, churches, the City Centre, convenience stores and recreational spaces such as Hagley Park. With sex workers occupying the area, many of the people that lived here weren't pleased with this type of activity, however some thought they brought a sense of security to the area.</p>
5	Jenny Drury	<p>Jenny Drury, the Vicar's Warden at St Luke's Church and has been a part of the church since 1979. Jenny stated she saw a lot of changes throughout the years of being a part of the Peterborough Village. The housing went from the traditional brick family homes into larger apartment buildings therefore changing the demographics of the area from families and elderly to young working couples. The church organised and held many community events ranging from picnics and barbeques to community street parties in which they had to close the Peterborough Street to hold these events. The church was a very special place as Jenny stated, not only for the parish but also the church was somewhere "They could wander into" no matter what faith you were. The church was also involved in the community trust which was established in 2002 which was used to help elderly get to appointments and also help with counselling services. Jenny commented on how the Peterborough Village "will return", not to the same state as it was however the memories of the area wouldn't change. For example old identities shall stay, such as Betty Trigwell's roses which were outside her house before it was damaged in the quakes that are now moved to the church grounds in which brings a sense of unitedness within the community after the loss they had faced.</p>
6	Di Lucas	<p>Di has been an active member of the Peterborough Village and has lived in the Christchurch since 1987 when she moved back from Geraldine to do her Masters in Landscape Architecture at Lincoln University. Di decided onto live in the Peterborough area as it wasn't as gentrified as other areas around the city and it had a great diversity and she has lived in the area since 1991 when she was a regional councillor for Canterbury. Di commented on how Colombo Street used to be a good shopping area for locals with grocers and a butcher all within the vicinity. By the time of the quakes these stores</p>

		<p>were being replaced by cafes, restaurants and tourist souvenir shops. She also noted the appearance of more and more apartment buildings in the area.</p> <p>Di stated that there was great diversity in ethnicity living in the PBV and also in transient visitors to the area. She says that there was a shift from residential families in the area to working singles and couples occupying the apartment buildings.</p> <p>Post-quake, Di along with other members of the area, created groups based around the rebuild focusing on different rebuild options such as shared living and affordability. She is a huge part of many of the events and meetings and talks about a competition she organised inviting artists to make something out of a small piece of wood to wear, this also expanded into the local school.</p> <p>Di, being a landscape architect and a keen ecologist, said the river corridor held a particular significance to her and the ongoing and historical management of the river in a central city was interesting to her.</p> <p>Di comments how the Peterborough Village is a stable population with many known and constant faces in the community. She told us of when she first moved into the village and her dear neighbour Betty Johnson turned up on her doorstep with a hand embroidered hand-towel with ‘Diane welcome to the street’ on it.</p> <p>The Peterborough group is a mix use area of commercial, residents and recreational use. She states that having an area spatially focused helps and keeps the progress of rebuilding on track.</p>
7	Anna Reid	<p>Anna Reid, from the New Zealand Prostitutes collective has been a founding member since 1988.</p> <p>Anna states that even though there were differing views on the street workers in the area, some of the residents of Peterborough Village did not mind the workers. It was known that some of the residents that had lived on their own had felt more comfortable and safer living here, as there were people outside and constant police watch and presence. Anna believes a positive attitude was bought when the workers personally met residents. The NZPC also had close contact with St Luke’s Church; running barbeques in recognition of the annual international day to end violence to sex workers. Anna believes that a community connection is present in the Peterborough Village area as the workers and the community works together to create a safer environment.</p>

DATABASE TABLE – CULTURAL SITES

	Name	Description
1	Cambridge Green	<p>The area known as Cambridge Greens is of significant importance to local Maori. (Christchurch City Library, 2014). There is mention that the union between the Ngai Tahu Chief Tautahi, from Port Levy, and his wife Waitaha princess, was blessed with the waters of Saint Mary's stream. It is said that this stream can still be seen converging into the Otakaro/Avon River from this site.</p> <p>Due to the cultural significance of the area holding a wairua (spirit) to local Maori, Christchurch City Council (CCC) worked with the local Iwi to restore the area. The contribution of three carved pou was commissioned by the Hagley-Ferrymead Community Board. With traditional carving techniques performed by George Edwards, Ngai Tahu master carver, these pou are said to symbolise the maiden, mother and crone representing three waves of migration to the city of Christchurch, with a ceremony performed in 2005 to bless the site being seen as an advancement in the healing of the long standing cultural disputes.</p>
2	Environmental -Future Vision.	<p>For further information on The Ecosystem of Ōtautahi follow link's bellow.</p> <p>Mixed Use Competition http://www.peterboroughvillage.org.nz/category/mixed-use/</p> <p>Central City Ecosystems http://lucas-associates.co.nz/christchurch-banks-peninsula/central-city-ecosystems/</p> <p>Ecosystem Map http://lucas-associates.co.nz/christchurch-banks-peninsula/ecosystem-map/</p> <p>Historical Maps http://lucas-associates.co.nz/christchurch-banks-peninsula/historical-maps/</p> <p>Surface Water Strategy</p>


		<p>http://lucas-associates.co.nz/christchurch-banks-peninsula/surface-water-strategy/</p> <p>Greening the Urban Environment: A Strategy for Christchurch Central City http://lucas-associates.co.nz/christchurch-banks-peninsula/greening-the-city/</p> <p>Renew Our City (ROC) http://lucas-associates.co.nz/christchurch-banks-peninsula/renew-our-city-roc/</p>
3	Victoria Square	<p>Victoria Square, formerly known as Market Square used to be the commercial area for early Christchurch. In 1896 the park was cleared to celebrate and create an area for the Queen Victoria's diamond jubilee. The James Cook statue was placed in the square 1932 to commemorate his voyages around New Zealand.</p> <p>The Queen Victoria statue unveiled in 1903 to celebrate the settlement of Canterbury and also to remember the 79 Cantabrians that lost their lives in the Boer War.</p> <p>Images sourced from Christchurch Libraries.</p>

DATABASE TABLE – EDUCATIONAL RESOURCES

	Name	Description
1	Educational	<p>Image: 1 Quake Stories. Sourced from: http://www.ceismic.org.nz/quakestories Follow link for further information.</p> <p>Image: 2 Harakeke. Sourced from: http://christchurchcitylibraries.com/maori/plants/harakeke/</p>

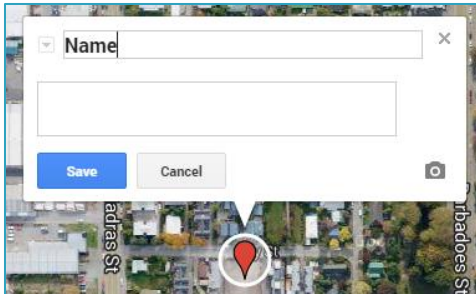
Appendix B – INSTRUCTIONS FOR GOOGLE MAP ENGINE LITE

1.0 How to Place a Marker/Pin Point on the Map

Step 1: Add a marker by selecting the marker icon  on the tool features.



Step 2: Place the marker on the map by clicking on the desired area.

Step 3: Enter the name and the description on the text box as shown below.

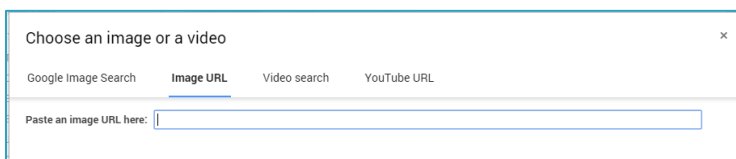


Step 4: Click 'Save' to store the information.



1.1 How to Add Images/Videos on the Map

Step 1: Select a marker/pin point and click the pencil icon  to add images and/or videos, followed by selecting the camera icon .

Step 2: Select the Image URL or YouTube URL options as shown below.




Step 3: Paste the URL address of your images/video and click 'Select' to upload the images/video on the map.

Step 4: Click the plus icon  if you require additional images/videos to be uploaded. Click the rubbish icon  if you want to delete the image file.

Step 5: Click 'Save' to finish.

1.2 How to Retrieve a URL Address for Images

Step 1: Sign in to Panoramio

Step 2: Select the camera icon  to upload an image. The icon is located on the top-right of the page.

Step 3: Select 'Upload photos' option and select the images from your file.

Step 4: Select 'I'm done' option when finished. It will take you to the home page.

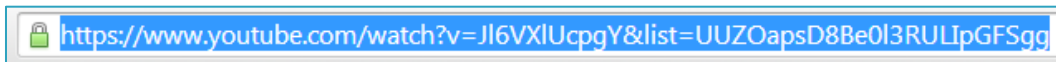
Step 5: Select the image from the home page. Right-click the image and choose 'Copy image URL' option. The address can be added to the map as shown in **1.1** processes.

1.3 How to Retrieve a URL Address for Videos

Step 1: Sign in to YouTube



Step 2: Select 'Upload' option – located on the top-right of the page. Select the desired video file.


Step 3: Copy the URL address from the address bar as shown below. The address can then be added to the map as shown in **1.1** processes.



1.4 How to add layer into the map.


Step 1: Select 'Add layer' option on the top-left of the page. A layer will automatically appear.

Step 2: Name the layer and upload the desired information. You can choose the style by clicking the style icon  and they type of labels by clicking the Labels icon  for the selected layer.

Step 3: To delete a layer. Select the arrow icon  and click 'Delete this layer' option.

1.5 How to Edit Markers/Pin Points

Step 1: Select a marker.

Step 2: Click on the paint icon  to edit the colour and icon shapes as shown below.

