

Understanding local disaster culture to build resilience

The case of the historic centres of
York and Amatrice

Appendices

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1 Appendix

1.1 Project information sheet, York

<p>☒</p> <p>Title</p> <p>Between two floods Local Flood Culture to build resilience: The case of the historic centre of York</p> <p>Description</p> <p>The incidence of a flooding event has historically threatened the conservation status of cultural assets in historic centres which are located along rivers such as the York city centre. However, in recent years, we have all witnessed an increase in flooding events which have had a severe impact on traditional building materials with consequent structural issues and a loss of original fabric.</p> <p>The damage of the 2015 flooding in York was exacerbated by the failure of the structural barrier due to the unexpected amount of rain water. The only confidence on the structural measures has shown a lack of community awareness and response to the threat of flooding. Therefore, the study respond to the urgent needs for reducing the vulnerability in the historic centre by enhancing the local and community knowledge concerning the flooding by monitoring the rehabilitation process.</p> <p>My research is part of a larger programme called Resilient York, which is a joint initiative between the University of York and The York Civic Trust – the objective of this programme is to inform and involve York citizens and practitioners in action in creating a more resilient historic city to cope with the threat of flooding.</p> <p>Researcher</p> <p>My name is Alessandra Sprega. I am a conservation architect and I have been awarded the WRoCAH studentship to undertake a PhD in Conservation Studies by the Department of Archaeology at York. I took part in international research projects in Italy and South America into the seismic reinforcement of traditional earthen building. My area of expertise and research is post natural disaster recovery of cultural heritage.</p> <p>Methods</p> <p>Qualitative analysis through questionnaire and interviews. Use the GIS software to organize the information relative to the building for the quantitative analysis.</p> <p>Confidentiality and anonymity</p> <p>Participants may withdraw from the study and withdraw their consent at any stage up until the date of submission of the thesis (30 September 2019). All data will be treated anonymously and stored in a secure place. Nothing will be used without the consent of the participants. All quotes and responses obtained from participants will be anonymised in any publication resulting from the study.</p> <p>Result of the study</p> <p>A Web-GIS containing the data of the preliminary results of the study will be available for participants on line. The link of this Web-GIS data base will be send at the end of the studies.</p> <p>If you have any questions, please do not hesitate to contact me Alessandra Sprega (as2195@york.ac.uk)</p>

1.2 Project Consent form, York

☒

Between two floods

Local Flood Culture to build resilience: The case of the historic centre of York

Alessandra Sprega, PhD Researcher, Archaeology Department, University of York.
email: as2195@york.ac.uk.

Please read the points below, check the boxes to acknowledge agreement, sign and return the form to the researcher.

- I agree to participate, by being interviewed, in this research project.
- I have read the participant information sheet for the project.
- I understand that my personal data will be treated anonymously.
- I understand that my quotes will be anonymised so I cannot be identified from the report and any following publication.
- I understand that I am free to withdraw from the interview at any time.

In case of face-to-face interview

- I give consent for the text of the interview to be used and quoted in research and publications produced after this study.
- I give consent for the interview to be audio-recorded.

NAME:

SIGNATURE:

DATE:

If you would like to receive the link to the online Web GIS containing the outcomes associated with this research, please provide your contact details:

☒

1.3 Project information sheet, Amatrice

Titolo

Valutazione della resilienza del patrimonio culturale in aree a rischio sismico e alluvionale attraverso l'identificazione della cultura locale: il caso di York e Amatrice

Descrizione del progetto di ricerca

La distruzione del patrimonio storico, causato da calamità naturali come inondazioni o terremoti, mina al "senso del luogo" di una comunità legata ai suoi valori e significati di identità culturale. Negli ultimi decenni è emerso un nuovo paradigma che introduce il concetto di **resilienza** definito come la capacità intrinseca di un sistema di recuperare rapidamente e adattarsi ai pericoli esterni.

Tuttavia, la resilienza del patrimonio costruito si trova più ampiamente nella conoscenza della comunità, nella consapevolezza e nella percezione del rischio, in altre parole, nella sua cultura locale. Questo pone domande su come la resilienza sia costruita dalla comunità locale e su come possiamo misurare il suo impatto sull'ambiente storico.

Basandosi su interviste, questionari e *focus group* con le parti interessate locali, la ricerca mira a sviluppare una comprensione del modo in cui il concetto di resilienza si applica nelle aree colpite da pericoli naturali. Questa metodologia è applicata a due studi di casi, in particolare il centro storico di York (Regno Unito) colpito dall'alluvione del 2015 e il centro storico di Amatrice (IT) gravemente danneggiato dal terremoto nel 2016. Oltre ai loro diversi contesti socio-politici ed economici, entrambi i centri hanno un eccezionale patrimonio culturale storicamente esposto a pericoli naturali.

Ricercatore

Mi chiamo Alessandra Sprega. Sono un architetto specializzato in restauro e mi è stata assegnata la borsa di studio WROCAH per intraprendere un dottorato di ricerca in *Conservation Studies* presso il Dipartimento di Archeologia dell'Università di York. Ho svolto progetti di ricerca internazionali sia in Italia che in Sud America per il rinforzo sismico e strutturale degli edifici tradizionali in terra cruda. La mia area di ricerca è il recupero e conservazione del patrimonio culturale colpito da disastri naturali.

Metodi di ricerca

Analisi qualitativa tramite questionario e interviste. L'uso del software GIS in modo partecipativo (PGIS) viene esplorato per supportare l'apprendimento sociale attingendo alle conoscenze e alle capacità esistenti della comunità.

Riservatezza e anonimato

I partecipanti possono recedere dallo studio e ritirare il proprio consenso in qualsiasi momento fino alla data di presentazione della tesi (30 settembre 2020). Tutti i dati saranno trattati in modo anonimo e conservati in un luogo sicuro. Nulla sarà usato senza il consenso dei partecipanti. Tutte le citazioni e le risposte ottenute dai partecipanti saranno rese anonime in qualsiasi pubblicazione risultante dallo studio.

Se avete domande, non esitate a contattarmi Alessandra Sprega (as2195@york.ac.uk)

1.4 Project Consent form, Amatrice

Local Seismic Culture to build resilience: The case of the historic centre of Amatrice

Alessandra Sprega, PhD Researcher, Archaeology Department, University of York.
email: as2195@york.ac.uk.

Si prega di leggere i punti seguenti, selezionare le caselle per confermare l'accordo, firmare e restituire il modulo al ricercatore.

Sono d'accordo a partecipare, tramite interviste, a questo progetto di ricerca.

Ho letto la scheda informativa del partecipante per il progetto.

Capisco che i miei dati personali saranno trattati in modo anonimo.

Comprendo che le mie citazioni saranno anonime, quindi non posso essere identificato nel testo della tesi di dottorato e da qualsiasi pubblicazione successiva.

Capisco che sono libero di ritirarmi dall'intervista in qualsiasi momento.

In caso di colloquio sia di persona

Do il consenso per il testo dell'intervista da utilizzare e citato nella ricerca e nelle pubblicazioni prodotte dopo questo studio.

Acconsento che l'intervista sia registrata audio

NOME:

FIRMA:

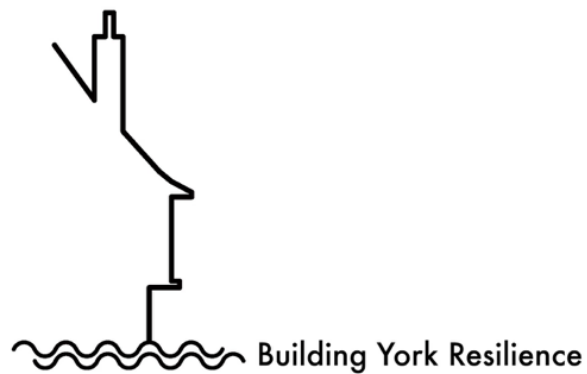
2 Appendix

2.1 Questionnaire form York

Mapping the resilience of York's historic buildings after the 2015 flood

The aim of this survey is to investigate the resilience of York's historic buildings and community to flooding. Your knowledge and perceptions will help to map the resilience of the historic centre of York highlighting effective approaches and measures to recover and prepare buildings for future flooding.

The survey takes about 10 minutes and is in 5 sections. It asks for some information about you and your property and the measures that were adopted in your historic building to safeguard against flooding before, during and after the 2015 flood.



Survey Consent Form

By signing this form, you consent to the following:

I have agreed to take part in the study by completing the following survey

I have read the research information sheet, understand what the project is about, and have had the chance to ask questions about the research

I understand that the address and information provided will be used to map the resilience of York's historic buildings

I understand that the information provided may also be used in an exhibition at the end of the project, in future academic research, and for publications

I understand my right to confidentiality and that my data will be stored securely

1. Please enter your full name *

This will enable your submission to be withdrawn from the results if you should choose to do this and will not be used to identify you.

2. Current Date *

3. Before continuing please click to confirm that *

Tick all that apply.

I am aged 18 or over, and have read and understand the information above

Participant general information

4. What is your gender? *

Mark only one oval.

- Female
- Male
- Prefer not to say
- Other: _____

5. What is your age? *

Mark only one oval.

- 18 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 to 74
- 75 or older

6. Occupancy *

Mark only one oval.

- Tenant Building
- owner
- Building manager
- Other: _____

Historic building information

7. Address *

8. Type of property *

Mark only one oval.

- Terrace house
- Detached house
- Semi-detached house
- Other detached property (e.g. hall, warehouse ...)
- Other: _____

9. Use *

Mark only one oval.

- Residential
- Public
- Commercial
- Mixed function
- Institutional
- Other: _____

10. Please indicate the approximate date of your building *

Before the 2015 flood

11. How many times has the building experienced flooding before the 2015 flood? *

Mark only one oval.

- 1-3
- 4-7
- 7-10
- More than 10
- None
- Don't know

12. What physical measures against flooding were already adopted in the building before the 2015 flood? *

Tick all that apply.

- Doorway – windows barriers
- Flood gates
- Flood skirts
- Flood walls in the garden
- Flood proofing electrical and mechanical utilities and systems
- Air brick barriers
- Non-Return valves
- Waterproofing treatments and sealants
- Sump and puddle pumps
- Building design
- None
- Other: _____

APPENDIX 2

13. What other measures were already adopted by you before the 2015 flood? *

Tick all that apply.

- Periodic maintenance of the building Kept
- valuable objects in the upper floors
- Heightened awareness to weather risk indicators Kept
- alert for flood warnings during high risk months
- Registered with Environment Agency
- Flood insurance
- None
- Other: _____

14. Before the 2015 flood, how likely or unlikely did you think your property would be subject to flooding? *

Mark only one oval.

- Certain to be flooded
- Very likely
- Fairly likely Fairly
- unlikely Very
- unlikely Certain
- not to be

15. Please could you explain why

During the 2015 flood

16. Which areas of the building were affected first? *

Mark only one oval.

- Garden
- Cellar
- Basement
- Ground floor
- Other: _____

APPENDIX 2

17. Which temporary measures did you adopt during the 2015 flooding? *

Tick all that apply.

- Sand bags
- Doorway – windows barriers
- Flood gates
- Flood skirts
- Flood walls in the garden
- None
- Other: _____

After the 2015 flood

Flood damage

18. Could you indicate which parts of your building were particularly damaged by the 2015 flood? *

Tick all that apply.

- External walls Internal
- partition walls
- Paneling
- Windows
- Doors External
- floors Internal
- floors Stairs
- Ceilings
- Fixed cupboards
- Other: _____

After the 2015 flood

Structural Repairs

19. How long was it before you could move back in and use your property? *

Mark only one oval.

- 0-6 months
- 7-12 months
- 13-18 months
- Still on going
- Other: _____

APPENDIX 2

20. What overall repair approach did you adopt for your building? *

Mark only one oval.

- Replacement of the damaged traditional part of the building with modern construction system (e.g. timber floor with concrete)
- Replacement of the damaged traditional part of the building with new construction system to match with the original (like for like replacement)
- Replacement of the damaged traditional part of the building with a flood resilient construction system solution sensitive to the historical context (e.g. raising existing [soekets](#))
- Other: _____

After the 2015 flood

Adaptive measures

21. Have you changed the use of the building after the 2015 flood? *

Mark only one oval.

- [Yes](#)
- No

22. Please could you explain how

23. Has the storage of important movable objects changed after the flood? *

Mark only one oval.

- [Yes](#)
- No

24. Please could you explain how

25. Has the maintenance of the building changed after the flood? *

Mark only one oval.

- [Yes](#)
- No

26. Please could you explain how

Your experience before, during and after the flood

27. From your point of view could you describe the main causes of the 2015 flooding? *

28. After the 2015 flood, how likely or unlikely do you think it is for your property to be flooded again *

Mark only one oval.

- Certain to be flooded
- Very likely
- Fairly likely Fairly
- unlikely Very
- unlikely Certain
- not to be

29. Please could you explain why *

30. How likely or unlikely are you to be better prepared for a future flooding event in your building? *

Mark only one oval.

- Certain prepared
- Very likely
- Fairly likely Fairly
- unlikely Very
- unlikely Certain
- not to be

31. Please could you explain why *

Thank you for completing this questionnaire

32. Would you be willing to take part in further research? You will have the opportunity to share your experience or photographs enhancing the local flood culture of York. *

Tick all that apply.

- Yes
 - No
 - Other: _____
-

2.2 Questionnaire form Amatrice (italian)

Mappatura della resilienza degli edifici storici di Amatrice a seguito del terremoto del 2016.

Lo scopo del questionario è di valutare il grado di resilienza degli edifici storici e della comunità di Amatrice dopo il sisma del 2016. La cultura sismica locale e la percezione del rischio da parte della comunità sono elementi fondamentali per la mappatura della resilienza del centro storico di Amatrice, insieme agli interventi di recupero architettonico e strutturale.



Modulo di consenso al sondaggio

Firmando questo modulo, acconsenti a quanto segue:

Ho accettato di partecipare allo studio completando il seguente sondaggio

Ho letto la scheda informativa della ricerca, ho capito di cosa tratta il progetto e ho avuto la possibilità di porre domande sulla ricerca

Capisco che l'indirizzo e le informazioni fornite verranno utilizzati per mappare la resilienza degli edifici storici di York

Comprendo che le informazioni fornite possono essere utilizzate anche in una mostra alla fine del progetto, in future ricerche accademiche e per pubblicazioni

Comprendo il mio diritto alla riservatezza e che i miei dati saranno archiviati in modo sicuro

1. Inserisci il tuo nome completo *

Ciò consentirà di ritirare la tua richiesta dai risultati se scegli di farlo e non verrà utilizzata per identificarti.

2. Data corrente *

3. Prima di continuare, fare clic per confermare che *
Seleziona tutte le risposte pertinenti.

Ho almeno 18 anni e ho letto e compreso le informazioni di cui sopra

INFORMAZIONI GENERALI

DATI PERSONALI DEGLI UTENTI

Genere
Uomo, Donna, Preferisco non dirlo

Età
18-25 25-35 35-55 55-85

Occupazione
Ex. Inquilino, proprietario edile, responsabile della costruzione
Altro (prego specificare)

INFORMAZIONI SULL'EDIFICIO STORICO

Indirizzo
Tipo di proprietà
Ex. Casa a terrazza, case a torre, masserie, casa di pendio, colombaie ...

Funzione
Ex. Residenziale, Pubblico (museo, biblioteca, teatro ...), Commerciale, Funzione mista
Data di costruzione

Numero di piani

Materiale utilizzato nella costruzione dell'edificio
Muratura in pietra, cemento armato, materiali misti (specificare)

Moderna alterazione della struttura storica
Ex. Intonaco in cemento, Cordolo in cemento armato, sopraelevazioni

PRIMA DEL TERREMOTO DEL 2016

1. Quante volte l'edificio ha subito un terremoto prima dell'evento sismico del 2016?

0 1-3 2-5 Più di 5

2. Quali misure fisiche contro il terremoto sono già state adottate nell'edificio prima del

terremoto del 2016?

- Contrafforti
- Tiranti in legno
- Tiranti in metallo
- Iniezioni di cemento
- Cordolo in cemento armato
- ~~Altro~~

3. Quali altri provvedimenti erano stati adottati prima del terremoto del 2016?

- Manutenzione periodica dell'edificio
- Evitare aggiunte strutturali inadeguate
- Adeguare l'edificio al codice attuale degli edifici
- ~~Nessuna~~
- ~~Altro~~

4. Prima del terremoto del 2016, con quale probabilità o improbabile pensavi che la tua proprietà sarebbe stata danneggiata da un terremoto?

- Certo di essere danneggiato
- Molto probabilmente
- Abbastanza probabile
- Abbastanza improbabile
- Molto improbabile
- Certo di non essere danneggiato
- Altro

Per favore, potresti spiegare perché?

DOPO IL TERREMOTO DEL 2016

Danno sismico

1. Potresti descrivere il danno subito nel tuo edificio dopo il terremoto del 2016?

Riparazioni strutturali

2. Se potessi ricostruire il tuo edificio, quale approccio di ricostruzione adoteresti per il tuo edificio?

Ricostruire l'edificio "com'era dov'era"

Ricostruisci l'edificio con materiali e tecnologie moderne senza replicare la forma originale e l'aspetto dell'edificio

Ricostruisci l'edificio usando misure elastiche ma rispettando la forma originale e l'aspetto dell'edificio

Nessuno, preferisco trasferirmi altrove

Altro

CICLO DI ESPERIENZA DEL TERREMOTO PRE-DURANTE-POST

1. Dal tuo punto di vista potresti descrivere le cause principali che hanno esacerbato il danno del terremoto del 2016?

2. In quale fase, prima, durante e dopo, hai avuto bisogno di più aiuto e consigli da parte di esperti?

3. In quale fase, prima-dopo-dopo vuoi essere più coinvolto?

4. Dopo il terremoto del 2016, dove ti vedi vivere nei prossimi 5 anni?

5. Dopo il terremoto del 2016, con quale probabilità o improbabile pensi che ci sarà un altro evento sismico nella stessa area nei prossimi 10 anni?

- Sicuro ci sarà un altro terremoto
- Molto probabilmente
- Abbastanza probabile
- Abbastanza improbabile
- Molto improbabile
- Certo che non ci sarà
- Altro

Per favore, potresti spiegare perché?

6. Dopo il processo di recupero, con quale probabilità o improbabilità pensi che tu e il tuo edificio sarete più preparati ad affrontare un terremoto in futuro?

- Certo di essere preparato
- Molto probabilmente
- Abbastanza probabile
- Abbastanza improbabile
- Molto spiacevole
- Certo di non essere
- Altro

Per favore, potresti spiegare perché?

Grazie per la partecipazione!

3 Appendix

3.1 Collaborative mapping workshop information sheet

Workshop sulla resilienza del centro storico di Amatrice

Lo scopo del workshop è quello di generare un dibattito sulla resilienza del centro storico di Amatrice. La storia moderna dei terremoti italiani e del modo in cui sono stati gestiti dimostra la necessità di includere la comunità nel processo di ricostruzione, integrando la conoscenza scientifica con il sapere locale.

Attraverso il concetto di resilienza, il workshop analizzerà i valori associati al patrimonio culturale di Amatrice, al fine di informare le pratiche di conservazione e di ricostruzione.

Utilizzando il metodo della mappatura partecipativa con il software GIS, i membri della comunità saranno invitati a ricostruire virtualmente il centro storico di Amatrice attraverso i loro ricordi e le loro aspettative future.

Il workshop si pone i seguenti obiettivi:

- Catalogare le tecniche anti-sismiche tradizionali
- Definire i valori legati al patrimonio culturale locale
- Comprendere come la resilienza potrebbe essere incorporata nel processo di ricostruzione

Il Workshop avrà una durata di 2h

STRUTTURA DEL WORKSHOP:

1. Presentazione dei partecipanti e della loro esperienza personale con il terremoto (15')
2. Riflettendo sulle conseguenze del terremoto, ai partecipanti verrà chiesto di fornire la propria definizione di resilienza (20')
3. Mappatura:
 - Analisi urbana: questa parte del workshop si concentrerà sulla comprensione dei valori intrinseci dell'insediamento urbano. I partecipanti, riferendosi alla loro esperienza personale, potranno assegnare ai luoghi del centro storico diversi livelli di importanza. (20')
 - Analisi degli edifici: nel secondo esercizio di mappatura il gruppo dovrebbe identificare all'interno delle aree precedentemente analizzate, edifici significativi. Verranno valutati i loro valori e il limite della resilienza in relazione al danno subito. (20')
 - Esperienza nella progettazione collaborativa: il gruppo identificherà soluzioni per migliorare la capacità di recupero di Amatrice nella scala urbana. Le soluzioni proposte rifletteranno la percezione del rischio dei partecipanti e i valori del centro storico di Amatrice. (20')



building Amatrice resilience

26.07.2019 h15:30

4 Appendix

4.1 Transcription of the focus group York

Focus group: "Building York Resilience"

Researcher: Alessandra Sprega (AS)

Participants ID: P1 (male, member of YCT), P2 (male, member YCT), P3 (male, member of the YCT), P4 (female, member YCT), P5 (male, member of YCT), P6 (male, member of YCT) and P7 (male, CMA).

Location: University of York Kings Manor

York, 29 August 2018

AS: Did you have experience the 2015 flood in York? Or flood in the past?

- 1) **P5:** I wasn't in York in 2015, I moved the following year.

- 2) **P4:** I moved to York to Huntington Rd in 1984 in the aftermath of the 1982 flood. And there's quite a lot to say about the way in which that galvanized the community. So, I certainly would not have found such a strong community to go and live in if there hadn't been an object of political focus, which was the flood in the aftermath of the flood. And then I was still there in 2015. And I moved up out of the flood zone, happily, because my old house did flood. But a lot of my friends was still there. And were flooded again. And it was quite interesting then to be talking to them and comparing their experiences in 2015, to their experiences in 1982. Yeah, I'm happy to talk about that. And not to bring really any cultural heritage issues to this because there are other

people around who were directly affected, but I can talk about the 19th century terraces house in that area coping with the flood.

- 3) **P1:** I had a curious experience to the 2015 floods, because I live in New York, and I completely didn't notice them. Like they were happening. I was Boxing Day or whatever family visiting, it was about day five, when I realized that there had been too serious bugs because I hadn't been into the center of Europe. And I wasn't in touch with work.
- 4) **P4:** Whereas I couldn't get out of the bottom of my Rd.
- 5) **P1:** But my mind as soon as I realized that it took me back to a time when I'd been very seriously involved in floods in Yorkshire in 2007, when a torrential rainstorm moved across Yorkshire and flooded 30,000 houses, in in Doncaster and Sheffield and Hull, and I was working as environment director in the government office, and was in charge of the recovery process in for the next six months, full time, two years, part time. So, I had learned a lot of lessons then in some of which were useful in the aftermath of this flood, but a lot of which were not relevant or different, or in completely sideways from what you're needed at that time. So, there were lots of different there are lots of different faces on the floods. And people are involved in different ways.
- 6) **P2:** My experience was Christmas day I spent in Harrogate. And the morning of boxing day, I came back and just managed to get out of where would it be to the near as bright as the roads work, we're being flooded. So coming into York, as I came over Clifton bridge, water levels were rising. And so I did on Bootham, which is above the flood level. I just managed to get in. And then we were stranded because everywhere was flooded, and the army knocking on doors saying "Do you want to get out?" I knew we were above that level. So no, we didn't want to get out. But it was interesting. And to witness really the, I thought the lack of information about what was going on, and what was

how it was being tackled, and the experiences of tenants where landlords weren't reacting to what had happened. And lots of shopkeepers were very perturbed because their landlords weren't available and that sort of thing. But it I remember the floods in the 70s when the York and Selby areas was extremely flooded. remember aerial photos of Selby area that was completely flooded except for the church and the graveyard that was above that critical level. But it the aerial photographs showed the historic patterns of settlement related to two flood levels. But it was the I mean, looking back, it was the lack of information, I think about what was happening and how people were tackling it. And over the counter rumours of mismanagement and all sorts of things.

- 7) P1: And he said something very significant said, you said I was above the flood level, how did you know?
- 8) P2: Through the experiences of the 70s and the 80s you know how far the water would come up And also, I've done an assessment of the depth of our basement in terms of flood levels. So you know, for filling the mortgage form and everything. So I knew that so. But yes, I thought I'll just, Can I finish that?
- 9) P4: Can I just just thinking about that historical thing in the churches? Yes. I'll forget this. If I don't say it now, during the tsunami in Japan, which was about five years ago. And I was talking to a Japanese guy can't remember who it was. Who said that up on that coast, there is a place where the name translates literally as this is, as far as the tsunamis come. That was quite interesting to see. Yeah. You know, this is this is the end point of any tsunami that sort of gotten it. You know, like you call walls and tools and without thinking. You know, tsunamis end.
- 10) P6: I was living outside of York. It was quite exciting because my boxing days become a big news. I was following it quite kindly. The rolling news which

they step down because of the festivity. So, I was using social media quite a bit, like people from the centre of York that never flooded there was a sense of excitement but also the idea to do something to help. At that time, I was volunteering a couple of days a week at the York Army museum on Tower Street, and they did get flooded there was water in the basement. So, when they posted on Facebook the news that they were been flooded there was in me a bit of guilt consciousness 'should I go to help' but there wasn't any public transport, 4 and half miles away. There was a slightly chaotic communication. I tried to get in touch with my colleges, one of them was away from York at that time. I did live in York in 2005 that was after a flood and at that time, and I had the feeling to be cut off like York was like an island trapped within. The supermarkets were a bit empty after 3-4 days and it felt like an island.

- 11) **P2:** it is my memory corrected that the telephone land line was off for 2-3 days?
- 12) **P7:** Yes, also the mobile signals and the reason for that was that they have built the BT building all the main exchanges and the power were in the basement.
- 13) **P7:** I live miles from York but I was in York on the boxing night trying to stop the water coming inside the Merchant Adventurers' Hall and I was reacting to the flood line warning. It was quite difficult to get the information. There was a flood warning in the afternoon, I went down the I look at the river, as I always do, and I moved the silver cabinet upstairs. The severe flood warning came in the evening, but only in the EA website I could find out that they opened the barrier. It was difficult to drive towards York because a lot of road started to be flooded. We tried to stop the water coming in, completely wasted of time, we sand bags the doors but we couldn't do anything with it. But I think the recovery process was long and turgid. We had dryers for

almost a year (10 months) in the undercroft but HE said “you almost wasted your time after 6 weeks” because we got the relative humidity quite quickly no mould appears anywhere in the building. The ancient fabric of the building, and I suspect they built in that way because they knew that was a flood area, so the medieval fabric recovered without any interference from us. It was all the modern stuff from the 17th century pews and the chapel, that must be flooded few times but we had few problems with them, to the post 1982 addition. (when the Foss barrier was built) we haven’t flooded since the 1982 because of the barrier and a result of that you can see in the immediate aftermath (of the 1982 flood): the power supply went a 1,5 mt on the wall. But around the end of the 1990’s when we thought that we couldn’t flood we put the silver cabinet in the undercroft and a sophisticated alarm system in pump in the basement. So instead today the final resilience work has finalised we built a new silver cabinet in the first floor. Concerning the medieval fabric, it performed well in a couple of weeks. We could have opened the museum after 6 weeks but the problem was that they put in 2009 the emergency lighting power unit on the ground floor without any flood protection.

14) **P4:** That makes an interesting contrast with Jorvik

15) **P7:** The critical part was the emergency lighting. But we were extremely well supported about the insurance

AS: Did the insurance cover also the adaptive measures?

16) **P7:** yeah, they did they Yeah, they would extend to me they, for instance of the silver cabinet, which is the only thing they didn't cover completely. they pay, they gave us the money would have cost to rebuild what we add. So, that's only a part of what we built something much bigger and better. So, we've got about half of that. So, they appreciate it was it wasn't a resilience edition in there as well. But as they pay for resilience measures across the

piece, really. So, when the power unit went back into the emergency lighting, it's now in a waterproof bond, and they paid for that waterproof. Okay. So yeah, they helped us with buildings.

17) **P3:** My experience in the Boxing Day floods were influenced to some extent by floods in York in past years and one particular year. And I don't remember the actual date. But the news might have flooded really badly. And I remember I was cycling, we might have even been cycling home from the King's Manor. And I cycled down our street and I thought there's also water on the road here. And as I approached my house, the water was getting deeper, and deeper and deeper. And when I turned into my drive, on this particular occasion, the water was just above the top of the kerbstones on the street. So, I actually had to puddle through water to get into the house, but it wasn't up to the top of the doorstep. And I've been doing some work at home that year. And I happen to take a loose floorboard up and I could see that there was water under the floor, above the side concrete. But there was nothing coming up the walls and all the carpets were dry, and everything. And within a couple of days that water disappeared. However, my next door neighbor on one side, they must have been slightly lower than my house. And their house was quite badly flooded and they had to take all the plaster off and replace all the floors subsequently in the decorations and took all the furniture and escape and cut that was a lucky. Subsequent to that about 10 years later, a lady who lived on the other side had quite a nice garden and she decided to sell the garden as a building plot and the builder who built on that plot. I was intrigued to see set his new building at least 450 millimeters higher to the ground floor level than any of their other houses in the street.

18) **P1:** Now thought I think that awareness This is a really good example of that we've just moved house and find looking for houses and villages to the west of York. And we were looking at a very lovely little cottage which would have been absolutely perfect. Then I realized there was some new houses along

the road and new houses built in the style of the 19th century cottages were all two and a half meters higher

19)P3: But I was I going to say is that when I heard on the TV that the Ouse burst its banks quite badly, the first thing I went to the bedroom window and I look at the bottom of the Knavesmire Road and I thought that there was a lot of water. My experiences and memory of that flood keeping looking at the bedroom window to see how far the extent of the flood flow come across the Knavesmire because prior to that earlier flood they did some drainage work on the Knavesmire and they a flood system that discharge to Bishopthorpe Rd and to the Ouse.

20)P1: Which is good for some people. In any flood event, there are clearly circles of anxiety.

21)P3: I was within that circle of anxiety and that was my memory of that flood. I kept walking into town and see Skeldergate that there was a good barometer.

AS: A lot of interesting topic have emerged in terms of lack of communication but also about how our response to flood is connected to past experiences as well. I want to ask you how the response of the community has changed from the past comparing with the 2015 flood?

22)P4: From the point of view of Huntington Rd on the communication side, because I was walking the dog and I noticed how dramatically come up. I was looking to my friend house and the situation was really bad and I started to put some sand bags by an open wire gate and against the door and by the time I turned around I thought: "Oh shit". In two minutes, it was running deeper and faster really noticeably and there was a friend that gave me direction to how to move and I manage to get back with really wet feet. In the aftermath, the communication was quite good because the whole place was

all full emergency services and rescue people with walking talking. So, police were happy to talk to us as we stood on the shore looking at what was going on.

23) **P1:** Here is a thought there were only 650 houses flooded in the city of York at the exactly the same time there were 7000 houses flooded in west Yorkshire which didn't get to the news that's why we got extra 45.000.000 because the media come to York. The resources for emergency services were diverted from West Yorkshire to York that was unusual because the Foss Barrier. We were lucky because there was so much attention, and in the aftermath we received more help.

24) **P6:** That's because York is more accessible or is that's more iconic?

25) **P4:** More iconic

26) **P1:** The same thing happens in 2007 which in the iconography of the UK flood was the Gloucester flood. There was the flood in Tewkesbury but because the news were concentrate in expensive houses flooded nobody noted the terrace houses in Hull that was a serious object of contention because the people in Hull were ignored because the camera focused in the church of Tewkesbury until somebody died.

27) **P4:** In terms of what was the response, really interesting, everybody said in 2015 in the immediate aftermath, and then went on and on. I mean for me was like living in a ghost town, because all the houses except 3 were deserted, they couldn't find where to rent with their dog, but they regret it. Everybody else went. And the first people didn't come back till July and they said that the recovery process was too long (humidifier for months, no necessity to remove the whole plaster etc.) and they thought it was partly to do with the insurance and partly to do with the increase of the health and safety anxiety. They were living in those houses perfectly happy since 1982

without being poisoned by whatever bleach into the wall. They were cross. They felt there was an overreaction.

28) **P2:** I think the 2015 was different because of the timing because the other flooding happened during normal working day, where people were there, office, departments were open whereas the 2015 happened when people were away on holiday. Lack of response due to the timing.

29) **P4:** There was a strong sentiment in my community that the flood shouldn't happening if the maintenance and the renovation works were effective in the barrier. So, they felt quite angry about that. But they also felt puzzled about why took almost 1 y to go back. Most people spent Christmas of 2016 packing.

30) **P6:** It's funny how the insurance people oblige you to do the work or they don't give you money. There is a big sense of authority over you.

AS: What measures both physical and behavioural did you adopt and were effective?

31) **P4:** In case work we have seen quite a lot of response along the Ouse in term of resilience measures (Kitchen and electric adaptation). But in the posher houses.

32) **P1:** I don't think the adaptation processes has been driven to anything statutory. It's the individual.

33) **P4:** It's the individual. And they are responding to the fact that in King's Staith they flood much more frequently than other areas.

34) **P1:** In terms of how people respond there are two things to consider, first

there is a greater awareness that flood events are worst and more frequent and the second thing is that the consequences are potentially greater because the way that we live in terms of material in our houses (block plastic..) and we got fragile system, If you think on way to adapt the telecommunication. If you think in how to adapt my house, it might not be relevant in 10-year time.

35)P4: In the case of York there is this mythology that the common enemy were the water, instead was a failure of the State, whether was a single engineer or government failure of managing the risk. Issue of flood warning: Wrong communication of the risk, not accurate or efficient. (In fact you've to go to the EA website to find out the cause) However, one the major effect that we talk a lot more we each other, and I was given a lot of hints.

4.2 Post-it activity York

AS: What is for you Resilience? And how it applied to your building?

- Be prepared- plan the worse
- Ability to recover from sudden unexpected events
- Has City Council a strategy for the public? "acqua alta"
- Timely and efficient manner
- Protect key infrastructure that cannot be moved
- Prepared
- Tested
- Coordinate
- Resilience as resistance not absorption or accommodation (for example Huntington Rd)

APPENDIX 4

- Resistance rather than the other defence
- Don't rely on the state government
- Manual for protection of building and or repairs
- Keep valuables safe passport and photo on plastic box
- Rely on large scale flood protection
- Learn from the past learn the lessons of the history
- Is there a flood plan?
- Be aware – don't be taken by surprise
- Expect the worst

4.3 Red tower Interview Transcription

Name of Interviewer: **Alessandra Sprega (AS)**

Participant Name: **Barry Beckwith (BB)**

Date(s) of Recording: 10/10/2017

Location of Interview: Red Tower (RT)

AS: When the RT was built?

- 1) **BB:** In the 12th Century (1155) when the first section of the eastern defence was built. The Walmgate Bar was the first and they built a wooden barricade up to the end of this building (RT) which was a natural water defence because in the 1069 William the Conquer when built the castle and he wanted the moat and the river Foss flooded creating the King's Fishpond. So, he needed to create a barricade to defend the east side of the city. [1:44] In 1345 they replace the wooden barricade with a stone wall, but they didn't replace the tower which remain in timber until 1419 when they decided to build a more substantial tower but they couldn't afford stone which was posh and expensive so they decided to employed the guild of tiles who used brick (which was cheaper). It took a year to build. So they use it as a watch tower until the [4:59] 1644 when York was under siege the RT was almost destroyed by a bomb. After was repaired using different materials (patched up) and was used for many things factory ... for 200 yeas until the 1856 when the Victorian [5:42] decided that they wanted reclaim this land. The building had a under floor level as you can see from the doorway that could be a water gate to use a boat. So they rebuilt the tower using the original brick for the outside and the Victorian brick for the inside. The tower that we look today is a Victorian reproduction. They reduced the high of the building and changed the floor levels. They changed the roof, originally was a flat roof, instead they built a medieval roof. [9:15] The building was used as a council store until the beginning of 2015 [9:25] when a lady decided that this building was wasted

as a council store, and she had the idea to open a pop up cafe for the community. So it was open only on the Saturday with volunteer and we sell pieces of cakes a cup of tea to cover the cost. But the vision of the group is that this could be a long term project in which was envisage the redesign of the building leaving the cafe on the GF and on the FF a place for hire (community events). We are in the process to get the utility and electricity inside. And we open up an external access to make the area more accessible for elderly and disable people. We are contractors employed to redesign the building flood resilient.

AS: Tell me about the project for the new building?

- 2) **BB:** We employed an architectural practice based in York, Holland and Brown, which had experience on historic building refurbishment. The project includes flood resilient measures such as the roller kitchen and storage area. Also the toilet is designed to be flood resilient. The utilities and electrical equipment are all designed above the demarcation flood line (thanks to the experience of the 2015 flood). It will be a lot of insulation and windows.
- 3) **BB:** In January 2016 a feasibility study was conducted when we were using the tower as a flood distribution point to help the local community with the damage of the flood. We wanted to do a no profit organization so we created CIC (Community Interest Company) and we started to find funding through charity organizations and local authority grants (landfill tax) flood relief funding. We are having problem to put the utilities we can't start the project so we have raise our voice to the City of York Council. I mid-October we expect that the work will start.

AS: From your point of you the building historically has proven to be resilient to the flooding?

- 4) **BB:** Yes if we see the front the original foundation was made by stone and if you see the thickness of the walls has withstood the challenge of the weather.

AS: In terms of water damage of the last flood how you can describe it?

- 5) **BB:** Just in the walls you can see the salt efflorescence (water mark). We lose just some materials documents and storage.

AS: Do you expected to be flooded in the year that you were occupy the building?

- 6) **BB:** I joined this group of volunteers in the summer of 2015, they'd already been operating for five or six months prior to me joining them. But the group of people that were operating, some of them were relatively new to York and some of them weren't old enough to remember, when I joined them it was summer time and there was no, it never occurred to me to say to anybody that there's a chance this might flood, it never occurred to me that this could happen but when the floods came, of course then it brought it all back to me the days I used to ride my bike through the floods down here. But it was since the introduction of the flood barrier, they've done a lot of flood alleviation, the river Foss down here one of the main reasons it used to flood down here was its connection to the Tang Hall Beck because the Tang Hall Beck used to flood. So, the environment agency put a lot of work into flood alleviation from Tang Hall Beck from the river Foss then created the barrier. So really my historical recollection of the flooding in this area wouldn't really ring true based on the work that had been done since 2000.

AS: Are you doing some activity to keep the memory of the 2015 flooding alive?

- 7) **BB:** I created some panels with the pictures of the flooding. These pictures were taken when the water receded quite a bit. I am going to redo this panel and this will be a constant reminder to visitors. We are planning to have a flood display for the Heritage Open Days, with these pictures and plans of the building.

AS: I can see from the new project that before there wasn't any awareness of the risk of flooding?

- 8) **BB:** No there wasn't, since the introduction of the flood barrier has never been an issue, because you believe that the amount of money and effort of the EA.

AS: Could you describe your experience of the flood?

- 9) **BB:** It took two months to have the stone floors flag to be dry out and we received assistance from voluntary groups (ex. Mormon church of Acomb) long before any official help. They provided food and cleaning product. We didn't receive any advice on how to clean no from the local authority although it was a LA building. To dry out 3-4 month the buildings and the floor but the walls still drying out. The contractor will be cleaning again to comply to hygiene regulation.

4.4 Holland and Brown Interview Transcription

Name of Interviewer: **Alessandra Sprega (AS)**

Participant Name: **Geoffrey Holland (GH)**

Date(s) of Recording: 05/02/2018

Location of Interview: HOLLAND BROWN ARCHITECTS York.

AS: Concerning the project of the Red Tower, do you think we can define this project as a participatory one? I mean how has the community influenced the design of the project?

- 1) **GH:** The community were consulted by the client body and I think they did participate providing quite a lot of inputs which formed the original brief that the client came up for it and that is how we interpreted. For instance, the usage of the up room, there were lots and lots of ideas and the truth is that it has got to be kept as a very simple and flexible space for small meetings and things like that. So, those ideas came forward but it's limited to what can be achieved and hold in terms of numbers. And so it was inevitable that it's going to be a small simple and flexible space. Downstairs most people would want a small kitchen and a toilet.

AS: Because the community was the first promoter of the project before the CoYC

- 2) **GH:** Yeah The was also different project and activities connected to the building like grown they own products and that got people interested and involved. But the building has always been open to the community to be involved and at the end of the day is a community facility and the client has some projects or event that involve the community.

AS: How the 2015 flood has influenced the design of the project?

- 3) **GH:** The all scheme has been on the go since 2015 just before the flood, so what we tried to do is exclude any form of timber from below 1.4 meters. (which is the flood level). Everything a part from few stair treads are in metal. All the doors partitions are in metal and the services are all fed from first floor level downwards and it is a reversible project. Inevitable you have to fix some things but I don't think it does a huge amount of harm to the historic fabric. The character hasn't change drastically. It's still quite dark inside, it is still a brick building, we kept the same roof structure. The things that we have introduce is just to make it function properly and readily.

4.5 Feedback on the ArcGIS map

4.5.1 Focus group: "Building York Resilience"

Researcher: **Alessandra Sprega (AS)**

Participants ID: (P1 male, member of YCT), (P2 male, member YCT), (P3 male, member of the YCT), (P4 female, member YCT), (P5 male, member of YCT), (P6 male, member of YCT) and (P7 male, CMA).

Location: University of York Kings Manor
York, 29 August 2018

Q1: How did you find use the app?

Q2: What did you find the information contained?

Q3: Would you suggest more information that could be added for the York community or/and specialists

Q4: Would you use this map as a tool to engage community and enhance their resilience?

Q5: Would you use this shared web-platform of information related to the flood risk for the York Community? Could you think about some limitations or benefits?

- 1) **P1:** This [the interactive map] would be more useful if it was hosted from an organisation that maintains it for the future and gets continuous use. It's a very important thing. Otherwise it becomes somebody's PhD and nobody ever looks at it.
- 2) **P7:** Really useful is to have a live link to the recorder to check the river level.
- 3) **P6:** It's very manageable the website here. It informs about the prevention as well about the resilience.

- 4) **P2:** I can see the state agencies using this map.
- 5) **P3:** Gives more information than the EA website, and it's easy to use or compare the info
- 6) **P6:** It was interesting the case study buildings see the perception of the risk before the 2015 and after.
- 7) **P4:** Looking at the analysis of the Foss it comes to the issues when you have a big piece of infrastructure how the perception has changed
- 8) **P2:** It's extremely useful to see the different dates of flooding in relation to the water barrier built
- 9) **P4:** Would be interesting see historic map as a base map

4.5.2 Interview York City Council Transcription

Researcher: Alessandra Sprega (**AS**)

Interviewed: **P8 (female, CoYC), P9 (male, CoYC)**

York, 05 July 2018

AS: There is a need for a shared platform of information like this app regarding the risk of flooding in York for historic building

- 1) **P8:** I think the information regarding the historic environment is addition welcome addition. I'm not so sure for the wider community. When you were show the questionnaire that you asked to people in the buildings, I was

thinking that you can gather more information in the next stage. Certainly, is useful for the people living in the flood area.

- 2) **P9:** I think if you are living in an area whether you are likely to be flooded something like that would be useful, because you can see what happens in the past.

AS: Do you think the app is user friendly?

- 3) **P8:** It certainly appeals. it's good to have the instructions. It looks really clear.
- 4) **P9:** It is extraordinary.

AS: Would you suggest more information that could be added for the York community or/and specialists?

- 5) **P8:** You could have more information about the repair approach so the building conservation officer could check what it was done. But that could take so much time.
- 6) **P9:** For the 2015 flood that should be a LBC for any repairs for each repair. So you can linked to it for example for the red tower.
- 7) **P8:** What are you going to do with this app? I mean would be really nice if could be updated. I can see that could be useful for the conservation officer and the flood people. You can put also the designation status.

AS: Do you think maps are a useful tool to engage community and enhance their resilience?

- 8) **P8:** Yes, because you might say that you are in a flood zone but it's quite

hard to imagine what does it mean. And through this map is quite clear.

9) **P9:** You look at the EA website map and the flood zone is just a line with the colour. With this you can look at the building with the qualitative information. I like the bit where people think about what people think of future flood. The MA thinks is unlikely whereas the RT think it is likely.

10) **P8:** I think is interesting see this qualitative information in a visual way. And you can see the story of flooding and that they are frequent. Could be a good engagement tool also for historic environment as well to study the impact of flooding.

AS: As a specialist, would you use this map to gather data to inform the decision-making process?

11) **P8:** I think so. Cold be useful for building conservation officer. But also for archaeologist and think about how the flood affect the underground deposit.

AS: What do you thing about the Perception of risk analysis?

12) **P8:** Useful for the building guys. There is a connection between perception of the risk and ownership. It's a snapshot in time.

13) **P9:** Clearly perception of risk will drive actions. So, if someone perceive their building to be at risk they will take preventative actions or actions that will feed into the resilience. This analysis would be helpful when occupation and owners change. For organization like the MA or the YCT they are going to have a different approach and management of risk to someone that a single owner occupies or a landlord that is removed from the city.

AS: What do you thing about the Resilient analysis?

14) **P8**: It is useful for prioritising intervention although there are other drivers in term of economy and time pressure and resources.

15) **P9**: In term of decision making the building at risk are the not designated one because the one owned by organizations have an embedded resilience whereas the others none look those. You can show HB are quite resilient owned by organisations that are aware of those issues. The others where the significance is perceived to be less, there is a lack of implementation of strategies to deal with flooding or they are inappropriate.

4.5.3 *Interview York Conservation Trust*

Researcher: Alessandra Sprega (AS)

Interviewed: P10 (male York Conservation Trust)

York, 01 August 2018

Transcription

AS: There is a need for a shared platform of information like this app regarding the risk of flooding in York for historic buildings?

- 1) **P10:** It is useful, because for example in our properties in Walmgate and the Foss area we were not aware about the risk of flooding because it had not flooded since the 1982 when the Foss barrier was introduced. So, we inform our insurance that they ever flooded. It's a problem of perception but the risk is still there. In fact, we are starting to considering how refurbish that area being aware of flood risk. Using solid floor in the first floor and higher socked on the wall. The general population could benefit to knowing that they are in a flood risk area and what measures use. In fact, people that took action earlier save a lot of damage and the properties was easy to repair and all the process was faster. A lot of people didn't want to deal with that. Left the building, with carpet furniture for a week. That extra timing seems to cause a lot of harm. The EA maybe has this information but are not clear. Your app it's a better scale and it is possible recognise your building.

AS: Do you think is user friendly?

- 2) **P10:** It's really good at the moment where the building highlighted are just

20. I wonder if was the all historic centre could be a bit confusing. It misses an extra zoom. The information is fantastic. The council could use this to advise the risk. It's interesting to see the perception, like us, we weren't aware before and suddenly you think how you are prepared for the next one. Some people say "very prepared" but maybe they did not take any other measure and could be an incorrect perception. So, we did that assessment with our insurance to see what we can do to improve. It would be interesting to see an explanation of the subjective view about preparedness.

AS: Would you suggest more information that could be added for the York community or/and specialists?

- 3) **P10:** Maybe more information about the history of the building and maybe more photo of the flood damage. Anyway, this going to be useful for the people of the next flood. What was allow, what was approved. People can feel reassured that they are not the first to tackle this problem. Can be improved and progressively update.

AS: As a specialist, would you use this map to gather data to inform the decision-making process?

- 4) **GB:** Yes

4.5.4 Interview Environmental Agency

Researcher: Alessandra Sprega (AS)

Interviewed: P11(male, EA), P12 (female EA)

York, 01 August 2018

Transcription

AS: There is a need for a shared platform of information like this app regarding the risk of flooding in York for historic buildings?

- 1) **P11:** I think the comparison between the perceived risk before and after the 2015 flood, if you asked in 1992 the perceived risk would have been quite high still. And this app will keep the perception high because is really easy to forget these things. The thing that with struggle with is to keep people memory of flooding fresh.
- 2) **P12:** I think that we certainly struggle both ourselves and the city council with getting the information out there and maintaining them. It's important to keeping people aware in the long term and obviously, all these buildings can potentially change hands and it's important to remember what they've got and help them to remember how these things could be maintained. I think it would really good for other buildings and think about what measures they used. It could be useful create a forum between them all.

AS: Would you suggest more information that could be added for the York community or/and specialists?

- 3) **P11:** That would be interesting to see all the measures that have been taken but people taken that quite personally for domestic homes they are quite protective and they don't want to share what they have done.
- 4) **P12:** A lot of residences that we speak in different areas in York, they don't see there is a good enough solution but if they could see some of the photographs of the products that they have put in place and the changes that they have done and again that could be a list that could be linked to the National flood forum or the blue pages. It would be really helpful because people don't see these solutions to be a proper flood defence
- 5) **P11:** They want proper flood defence not resilient solutions. Some people could be proud of the things they have done some not. Like Lendal Tower.
- 6) **P12:** Beside the list of measures if people give to you a photograph of what they put in place would be helpful. That could be the next step.
- 7) **P11:** It's more a personal recommendation than a selling product.
- 8) **P12:** I think also you can look forward and show the future risk of flooding with climate change. And we are able to share this information.

AS: Do you think maps are a useful tool to engage community and enhance their resilience?

- 9) **P12:** It's certainly what we ask for like something that they can stick a postcode and we have been trying to use that. I think is valuable I don't think anyone has got a fully idea of how buildings are taken on resilience at all. We send the message that the city is open for resilience but we can quantify or know what does it mean? And (the map) it starts to give a picture about it

10)P11: Unfortunately, GOV.UK is very restrictive and there is different knowledge about flooding and I think that's what people want about it.

AS: As a specialist, would you use this map to gather data to inform the decision-making process?

11)P12: I think it would be helpful because like I said a lot of stuff that we do as an organisation is working with our models and the models will say 'this would happen'. And your map instead puts it more in local context and provides an understanding of what is meant locally. If we do modelling for the future, we can start to pick out locations and we start to engage and talk with people and see what they already have in place and see what they might need on top.

12)P12: I think this app is valuable because I don't know if anyone has a full idea of how buildings are taken on measures for resilience at all. The council is sending the message about Flood resilient city, but actually we can't quantify what that means and this started to give a picture and that's when you start to prove and use this thing as case studies. People always see the picture of the Kings arm when it floods but this shows that it's quite a standard and not a big deal.

4.6 Transcription of the workshop Amatrice

Focus group: “Building Amatrice Resilience”

Researcher: Alessandra Sprega (AS)

Participants: P1 male, architect and member of the CCA, P2 male, retired, P3 female, architect and member of the CCA, P4 male, retired, P5 male, representative of the commerce association, P6 female, retired, P7 male, architect and member of the CCA, P8 male, retired, P9 male, engineer and P10 male, member of the CCA.

Amatrice, 26 Luglio 2019

AS: Potete raccontarmi la vostra esperienza del terremoto che ha colpito Amatrice il 24 Agosto del 2016? E quali sono state le problematiche principali che avete affrontato nella fase successive al sisma.

- 1) **P1:** Rispetto all'approccio post-sismico che c'è stato a me sembra che è stato principalmente 'verticistico' nella formazione delle prime decisioni. Non mi riferisco alla fase di emergenza, ma alla fase immediatamente successiva a mio avviso c'è stato un approccio 'verticistico' che ha escluso le tante sensibilità della popolazione. E questo ha creato un distacco fra quello che è il livello istituzionale e quello della popolazione e ha alimentato un distacco interno alla popolazione stessa. Aumento delle conflittualità. Questi fenomeni probabilmente sarebbero stati attenuati da un coinvolgimento diretto delle persone che le facesse sentire partecipi del percorso che si stava costruendo.

- 2) **P2:** Il 24 Agosto stavo a Cornillo Nuovo, una frazione a 5 km da Amatrice. Avevo un negozio lungo il Corso di Amatrice. La mattina alle 8 sono andato a vedere e l'ingresso era tappato dalle macerie. Dopo 20 gg sono riuscito a recuperare tutto, c'erano dei quadri dell'800 importanti e quando mi sono

sentito tranquillo, sono andato per le chiese degli altri paesi per sensibilizzare la cittadinanza e fare un gruppo per dare una mano al MiBACT, che è stato assente purtroppo. Quindi volevo creare un gruppo di persone autorizzate per recuperare elementi di pregio artistico e culturale nelle varie chiese che sono più di 100. Questo non è stato possibile, nessuno mi ha risposto e sono andato da solo dove è stato possibile per recuperare questi oggetti d'arte.

- 3) **P3:** La mia esperienza dopo il terremoto, dopo un primo momento di smarrimento, è stata che mi sono illusa che c'era la possibilità di riunire le persone del luogo che conoscevano bene il posto per poter parlare di come intervenire e ricostruire. Questa ipotesi è ben presto svanita, mi sono resa conto che di questa impotenza. Non soltanto a livello di amministrazione ma anche di ogni istituzione. Io all'inizio, siccome mi occupavo del museo ho pensato al recupero degli oggetti museali. Ho provato a contattare la soprintendenza ma ho trovato le porte chiuse. Loro si sono giustificati per una questione di sicurezza. Io non ho voluto dire che siamo i proprietari di queste opere, ma loro non si sono messi in contatto con il comune e hanno agito da soli. E questa è una cosa che ci ha offeso molto, ci ha reso inutili su qualcosa che è il nostro patrimonio. Senza sapere quando e come gli artefatti venivano recuperati. Non abbiamo saputo nulla. Noi siamo i legittimi custodi di queste opere vogliamo sapere almeno un elenco delle opere recuperate. Non me l'hanno dato, alla fine sono stata io a mandare un elenco di queste opere come le conoscevo bene. Quindi la mia sensazione è una sensazione di impotenza e frustrazione perché non sei in grado di fare nulla, vorresti fare perché hai la conoscenza ma non hai l'opportunità di mettere in pratica quello che si conosce. Nel momento dell'emergenza bisognerebbe riunire le persone che hanno un minimo di esperienza per agire al meglio. In questo caso non è successo. Le istituzioni sono andate per conto proprio, senza chiedere consiglio agli esperti locali. Io ad esempio sono andata a Città Ducale per riconoscere delle opere perché c'erano dei problemi con l'assicuratore. Quindi il mio rapporto con il terremoto in relazione al poter fare

è stato questo.

- 4) **P4:** Io sono un pensionato, sono tornato dalla Germania, dove ho vissuto per parecchi anni, ad Amatrice. È successo quello che è successo, e ci hanno mandato a San Benedetto negli Alberghi. Ci sono stati molti morti, molti sono andati via e non ritornano. Ci hanno fatto queste casette SAE e abitiamo lì, quasi tutti. È così la vita.

- 5) **P5:** Io avevo un'attività sul corso e avevo casa sul corso e nato e cresciuto sul corso. Il problema più grande oltre del poco coinvolgimento e il poco ascolto, ho notato fin da subito una grande impreparazione tra tutti i soggetti che dovevano tutelarci. Da subito il terremoto, alla creazione dei centri commerciali che hanno causato uno scollamento della comunità. Non si è guardato al lungo periodo ma al breve, dando solo segnali mediatici. Diciamo è stato più un palcoscenico questo terremoto che una tragedia come è stato. Essendo stato anche presidente dei commercianti, questo guardare al breve periodo ha dato e da difficoltà per la crescita di Amatrice perché la rinascita oltre che dall'arte viene anche dall'economia, senza economia non ci sarà lo sviluppo del territorio. Penso che magari andava dato uno sguardo più attento su come strutturare il paese. E siccome la comunità è stata spezzettata e questo spezzettamento ha creato ancora più solitudine. Io credo che sarà difficile rivedere Amatrice com'era anche tra tanti anni. I problemi più grandi sono stati impreparazione, come se fosse stato un caso straordinario quando sappiamo che stiamo in Italia e i terremoti esistono e ci saranno sempre. Non è stata coinvolta la popolazione non creando dei gruppi di lavoro come si era richiesto. E non c'è stato uno sguardo al futuro. A livello umano ho notato una cosa da parte di tutta la popolazione, che il vuoto che ha lasciato il terremoto doveva essere riempito da qualcosa. Chi lo ha riempito a livello materiale, chi invece aumentando il proprio ego nel senso che ho notato la voglia di essere protagonisti a tutti i costi quando invece dovremmo essere tutti uniti e dovremmo essere più soldati che generali.

- 6) **P6:** Io sono una pensionata, il giorno del terremoto sono uscita da casa e ho visto i palazzi che sono scesi giù: il tetto intero e le mura tutte distrutte. Noi siamo andati nei campi da tennis e abbiamo aspettato il giorno, poi la protezione civile ci ha fornito delle tende in cui siamo stati due tre mesi. Poi le hanno tolte per mettere le casette. Io sono stata ospite da una parente in Abruzzo per 6-8 mesi e a marzo sono tornata per vivere nella SAE. La paura è stata tanta, la mia casa non c'è più ma nella SAE mi sento sicura.
- 7) **P7:** Sono un amministratore del comune adesso e lo ero anche la notte del terremoto e diciamo che quelle ore sono state determinanti perché hanno cambiato la nostra vita e anche il senso di rapportare le cose. Già adesso abbiamo dimenticato mentre magari i primi mesi ti rendi conto che la stupidaggine che volevi a tutti i costi non era importante, perché in quelle ore ho capito l'importanza della vita che è la vita stessa. E quando vedi i tuoi compagni di classe che rimangono da soli perché la loro famiglia non c'è più allora ricalibri tutte le priorità. Però loro ci hanno spinto ad andare avanti. Io mi ritengo fortunato perché il 24 agosto non ho perso nulla. Io mi trovavo a Cornillo Nuovo e non abbiamo percepito che il problema era Amatrice. Lo abbiamo capito dopo due tre ore, dopo che sono iniziate ad arrivare le notizie di Amatrice e gli elicotteri. Non è stata semplice, perché noi giovani potevamo abbandonare tutto e andare via, invece io che quell'anno mi mancava un esame di architettura, ho deciso di fare la tesi sulla ricostruzione su una parte del centro storico. Il termine resilienza per me era quello di trovare una soluzione. Capire come le altre comunità come Amatrice avevano reagito. Ho capito che quelle cose che loro avevano vissuto noi le avremmo vissute di lì a poco. Perché tutti gli errori che sono stati fatti si potevano ripetere. Perché in Italia i terremoti ci sono sempre stati, ho fatto uno studio sul terremoto che c'è stato nel Belice e in Friuli, che sono due opposti anche nei metodi di ricostruzione. Poi vivendolo anche all'interno dell'amministrazione non è semplice coinvolgere tutti e si ci sono stati degli errori ma molto è stato fatto

in tre anni. C'è ancora da fare tantissimo. Ho visto da parte delle persone dei comportamenti buoni e cattivi, ma come da tutte le parti. Comunque non vedo il bicchiere tutto vuoto anzi lo vedo mezzo pieno, perché io non mi arrendo. E anche se oggi siamo pochi perché gli altri sono sfiduciati, il messaggio che voglio dare è che se non abbiamo abbandonato prima Amatrice perché farlo ora. Quindi il termine resilienza per me è essere resistenti senza dimenticare il passato, ricalibrando le priorità.

- 8) **P8:** Io sono originario di Visciano che ha subito la stessa sorte devastante di Amatrice. Io mi sono sempre chiesto una cosa: che cosa avrebbero fatto i nostri padri antichi? Avrebbero rifatto le case male dal punto di vista sismico ma seguendo la tradizione che era innata in loro, certamente non distruggendo tutto quello che il terremoto non ha toccato. Chiaro per gli affreschi caduti la perdita sarebbe stata immensa non avendo i nostri avi esperienza di restauro, ma dal punto di vista sociale comunitario e paesaggistico. Noi che cosa abbiamo fatto al contrario? Io nonostante sia stato fortunato a non aver avuto nessuna perdita, mi guardo intorno e vedo una distruzione. Il territorio che non era stato toccato dal sisma lo vedo completamente cementificato. Non solo con opere che sono avulse nella nostra tradizione, tipo la scuola e completamente decentrata. Io sono un nonno che andava a prendere i miei nipoti e vedevo quel tipo di scuola 1927 che era bellissima e adesso io devo subire di vedere una scuola che non rispecchia la mia tradizione stilistica. Lo 'Stato' non ha costruito nulla di nuovo definitivo ed è assente. Se fossi stato io Papa io avrei chiamato i migliori architetti per rifare Amatrice con una fantasia non a cubi e scatoloni come la scuola nuova. Questo poteva essere un modello perché il moderno di oggi sarà l'antico di domani.
- 9) **P9:** Io mi sono trasferito qui nel 2015, per certi versi, anche se può sembrare scandaloso, il terremoto ha rappresentato un elemento di grande potenzialità umana. Perché in una società come la nostra, della parte del mondo

fortunata, cerchiamo sempre la comodità la tranquillità, quando accade una cosa del genere può sembrare anche una potenzialità. Dal punto di vista umano c'è stata. Una cosa che mi colpì subito nelle ore successive, la percezione iniziale non è stata traumatica perché da bambino ho vissuto intorno a 10 anni in un edificio di 10 piani che oscillava. Infatti sono uno dei pochi che vive in una casa in muratura rifiutando la SAE. Il mio confronto con il terremoto è stato diretto e di curiosità, sia dal punto di vista professionale, essendo ingegnere, ero affascinato nel vedere l'edificio sollecitato. La cosa che mi ha impressionato era il fatto che riguardava i rapporti umani, persone che non si parlavano da anni dopo il terremoto si trovavano a mangiare insieme. Il terremoto quindi, ha riportato l'attenzione sulla condizione umana creando comunità. Ad esempio a Leprosi e Capricchia le comunità sono state molto presenti. A Capricchia sono aumentati gli abitanti dopo il terremoto. Abbiamo vissuto situazioni al limite. Poi arrivando gli aiuti si ritorna più o meno agli interessi iniziali. Dal punto di vista dello Stato, in una fase iniziale sembra impreparato di dare risposte e successivamente queste sono guidate da interessi economici. Dovremmo resistere più alla calamità dello Stato che a quella naturale, perché è lì che subiamo.

10) **P10:** Sono un amministratore alla prima nomina. Abbiamo un ristorante. La nostra abitazione ci ha permesso di uscire incolumi anche se da lì a pochi giorni abbiamo avuto una perdita in famiglia, mio nonno a causa di un malore è morto. Abbiamo vissuto in tenda per due mesi, e poi siamo andati all'Aquila. A livello lavorativo c'è stato un anno di stop, ma poi amatrice avendo una tradizione turistico culinaria le cose non sono state tragiche rispetto ad altri tipo di attività. Ho un ristorante nell'area food. Quella notte io ho sentito Amatrice crollare in diretta. Io studio e sono un appassionato di storia locale e facevo l'accompagnatore turistico. Ci siamo ritrovati tutti i beni culturali seriamente compromessi. Noi non siamo stati protagonisti né per le scelte dei beni culturali né per tutto il resto. Siamo andati in balia delle decisioni a livello nazionali e regionale che non hanno tenuto minimamente conto di noi.

Probabilmente perché eravamo in numero esiguo che non abbiamo potuto opporre resistenza. Purtroppo c'è stata tanta corruzione. Infatti il centro storico di cui noi parliamo è grande quanto uno stadio. Possibile che dopo 3 anni ancora non si è iniziato a ricostruire? Non è la prima volta che la città è stata colpita da eventi calamitosi. Infatti anche nel 1600 c'è stato un terremoto che ha distrutto Amatrice ma la comunità ha ricostruito pietra su pietra gli edifici, senza avere i mezzi che abbiamo noi. Per questo sono un po' basito.

4.7 Post-it activity Amatrice

AS: Che cos'è la Resilienza?

13)P3: È un termine che abbiamo scoperto dopo il terremoto. È inflazionato e per me non significa nulla. Mi disturba

14)P1: Viene usata in maniera impropria. La resilienza esisteva prima come qualità dei materiali, e invece ora si usa per tutto come resistenza. La resilienza va costruita e finché non arriva l'evento traumatico non te ne accorgi di non essere resiliente.

- Resilienza è fare nuovi figli
- La resilienza è inversamente proporzionale al benessere
- Che si potrebbe fare di nuovo? Perché com'era e dov'era?
- Tenacia
- Capacità di subire una perturbazione ritornando allo stato iniziale in un tempo ragionevole
- Dare fiducia al cambiamento
- Economia
- Coinvolgimento
- Medio lungo periodo
- Certezze
- Ricostruzione d'animo
- Resistenza
- Solo il ricordo resiste al terremoto

4.8 Amatrice mapping activity

Sant'Agostino e la torre tutti gli appuntamenti per partire.

Il museo è uno degli edifici più antichi di Amatrice è rimasto solo una campata dopo

il terremoto.

lo vorrei rivedere i miei luoghi che sono la mia identità.

Fare le vasche nel corso

Tutti i vicoli erano importanti

15) **P3:** Prima dell'avvento dell'automobile, Amatrice mancava di spazi grandi o di piazze così il Corso si chiamava piazza. Era un luogo di socialità. Sant'Agostino era il capo-piazza, cioè dove cominciava la piazza.

AS: Soluzioni Resilienza?

16) **P1:** Appena dopo il terremoto, chi è arrivato per primo al Corso, si è reso conto che bisognava avere dei mezzi di primo soccorso. Sarebbe utile che in un centro storico a rischio sismico ci fosse una casetta (tipo SAE) con dentro oggetti di pronto intervento come scale, scarponi, picconi, corde etc. Così chi arriva da fuori che non è stato investito dal sisma, può prestare un primo soccorso. Avere uno spazio per i mezzi di primo soccorso alle porte del centro storico (come le scale a Venezia)

AS: Come immaginate la ricostruzione?

17) **P3:** Portali in arenaria colori ocra palombelle sotto i tetti; Recuperiamo tra le macerie i materiali di valore

18) **P4:** Nello stesso luogo, vorrei ritrovare quello che c'era, ritrovare la mia identità. Poi ci saranno sicuramente dei miglioramenti perché tu non puoi ricostruire com'era. Sarà un'altra cosa con le stesse forme. È un fatto emotivo, perché emotivamente ho bisogno di credere in questa cosa.

4.9 Mario Ciaralli interview transcription

Researcher: Alessandra Sprega (AS)

Participant Name: Mario Ciaralli (MC)

Roma, 30 April 2019

Transcription

AS: Puoi raccontarmi della tua iniziativa, partita dal 'basso' per la protezione dei beni culturali di Amatrice e frazioni dopo il terremoto del 2016?

- 1) **MC:** Io abito in un paesino vicino Amatrice, Cornillo Nuovo e fortunatamente non ho avuto lutti. Mi sono attivato perché a me interessa la cultura del luogo, l'arte. E dopo qualche settimana dopo il terremoto ho visto che nessuno pensava al recupero di queste cose. Dopo il terremoto del 24 Agosto si potevano salvare molte cose perché le chiese erano ancora in piedi, si potevano salvare affreschi mettendo in sicurezza le chiese soprattutto San Francesco in Amatrice la chiesa più importante. Allora attraverso FaceBook ho cercato di coinvolgere un gruppo di persone per fare un comitato presentando il nostro Cv al comune al prefetto di Rieti e al MiBACT, per farci dare un permesso per recuperare gli oggetti d'arte, ma purtroppo non siamo stati ascoltati.

AS: La protezione civile?

- 2) **MC:** La protezione civile se non hanno l'autorizzazione del MiBACT non si muove nessuno. E i funzionari del MiBACT venivano da Roma una volta a settimana sul luogo, mentre le altre istituzioni erano fisse ad Amatrice. Padroni del territorio senza conoscere ciò che si andava a vedere. Io ho cercato attraverso i social di formare un gruppo "Prima che sia troppo

tardi”, ma purtroppo questa iniziativa dal basso non ha avuto successo. Quindi sono andato da solo a recuperare oggetti d’arte dove possibile (tabernacoli, statue, candelabri ecc). Ma nessuno mi ha aiutato né l’amministrazione comunale né i cittadini. Come nella chiesa di Retrosi che con una signora ho recuperato degli oggetti d’arte.

AS: Da cosa è dovuto questo disinteresse delle persone riguardo la tua iniziativa?

- 3) **MC:** Purtroppo io avevo prima del terremoto problemi con il sindaco, quindi aiutare me significava andare contro l’amministrazione comunale, che non si è interessata del patrimonio artistico di Amatrice.

AS: Quindi i danni al patrimonio sono stati causati dal terremoto ma esacerbati dal mancato intervento di messa in sicurezza da parte delle istituzioni.

- 4) **MC:** Si esatto, dopo il primo terremoto S. Francesco non era molto danneggiata ma l’altare barocco non è stato tratto in salvo e dopo il 30 ottobre è venuta giù la parete e abbiamo perso l’altare. Il 18 gennaio ci sono state 3 scosse in poche ore che hanno fatto crollare ciò che era rimasto in piedi. Anche S. Agostino ha tre nicchie con degli affreschi del 1400. Io ho visto recuperare dopo il 24 agosto un dipinto dell’800 dai vigili del fuoco, senza valore artistico invece degli affreschi. Hai un motivo per ricostruire Amatrice lì dov’era perché te lo impone la chiesa. Ma anche S. Francesco con affreschi del 1400. Dal 24 Agosto al 30 Ottobre non sono stati messi in sicurezza.

AS: Come immagini una futura ricostruzione data ‘l’indiscriminata demolizione’?

- 5) **MC:** Purtroppo abbiamo avuto un soprintendente assente e si è perso molto. C’è stata un’apatia totale. E non so quello che si è recuperato. Intorno a un monumento tu puoi ricostruire la città, invece purtroppo non ci sono più punti di riferimento. Io vorrei rivedere Amatrice com’era e dov’era,

ovviamente antisismica come è successo a Venzone. A me è passata pure la voglia, senza i riferimenti storico artistici. E poi non ti coinvolge nessuno.

AS: Si infatti è interessante analizzare il rapporto tra la comunità e le diverse istituzioni, perché se la comunità non si sente coinvolta si perde l'identità e c'è un distacco.

- 6) **MC:** Certo l'identità si recupera conoscendo le proprie radici. Che è un motivo d'orgoglio. Invece sia la curia che i beni culturali non si sono mossi in tempo. Al contrario a S. benedetto a Norcia patrono di Europa, si è mosso il Vaticano. Mentre i nostri beni culturali sono considerati 'minori'. Mentre l'amministrazione comunale si non si è interessata per la salvaguardia degli stessi. Infatti anche nei poli commerciali non vi è uno spazio culturale per promuovere l'arte locale.
- 7) Non c'è stato un coinvolgimento della popolazione, e della gente che conosce la storia di Amatrice ma non è stata interpellata.

AS: Data la situazione attuale del centro di Amatrice, cosa significa per te Resilienza?

- 8) **MC:** Bisognerebbe iniziare dalla politica e responsabilizzare i giovani. Responsabilità è resilienza. Dobbiamo darci da fare per Amatrice. Purtroppo non c'è più niente è solo terra battuta. Questo mi angoscia. Non bisogna ripetere le stesse tecniche costruttive, perché hanno utilizzato sassi di fiume legati con la terra. Però riproporre la stessa volumetria colori, ed elementi architettonici. Almeno per il centro storico bisognerebbe avere una deroga.
- 9) Purtroppo ci sono stati pochi incontri pubblici tra il sindaco e la popolazione. Non c'è un centro di aggregazione. (cit. DRAQUILA) Perché i centri di

aggregazioni potrebbero favorire la creazione di gruppi di persone. La gente che si riunisce fa paura.

10) La comunità di Amatrice non era coesa. Anche il presidente della proloco non era di Amatrice. Abbiamo perso molta della nostra tradizione. I cantabbraccio le ciaramelle i riti funebri l'ottava rima. Con lo spopolamento degli anni 50 queste tradizioni sono state perse, perché i nostri amministratori erano ignoranti. Da fenomeni quotidiani dovrebbero diventare cultura. E la gente dopo il terremoto deve stare scomoda per pretendere la ricostruzione.

5 Appendix

5.1 Coding

The interviews and focus group conversations were transcribed and partially translated in English in order to allow the thematic analysis of the topics discussed through coding. Saldaña defines a code in qualitative inquiry as:

A word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data.

(Saldaña 2013, 3)

The analysis through coding is part of the grounded theory approach which aims to extrapolate theory from the data. This is possible following different steps of the coding process. This method of analysis has been organised in two main phases. In the first phase, namely, pre-coding phase, is essential to find out all the idiosyncrasy and recurrent pattern of the language that could be organized in a systematic way through a code. Two criteria were adopted to identify relevant topics: repetition and pertinence. The correlation of these two criteria constitute a sufficient condition to identify categories in which similar code are included. While coding the texts, I found useful to annotate some comments that referred to the theoretical framework of the study. This method allows me to align grounded theory directly to my data. The second stage of the coding includes the comparative analysis of the different categories defining the themes that are analysed to assert theory. This phase is characterized by a systematic organization of the initial codes which includes a reduction of their number combining similar coding. For example, in the case of York, the initial codes “Different experience”, “Previous flood experience” and “Cultural flood parallel” have been grouped with the new code “Flood culture”. The themes

emerged in the research are an outcome of the coding process. Therefore, in my study, following the coding method I could investigate the relationship between community and institutions in the aftermath of disaster events which affected the local cultural heritage. Following the coding documents for the two case studies.

5.1.1 Coding of the focus group: “Building York Resilience”

Researcher: **Alessandra Sprega (AS)**

Participants ID: **P1 male, member of YCT, P2 male, member YCT, P3 male, member of the YCT, P4 female, member YCT, P5 male, member of YCT, P6 male, member of YCT and P7 male, CMA.**

Location: University of York Kings Manor

York, 29 August 2018

Code	Text	Comments
Local flood culture	P4: I moved to York to Huntington Rd in 1984 in the aftermath of the 1982 flood, and there is quite a lot to say about the way in which it galvanized the community. So, I certainly wouldn't found such a strong community to go and live in it if they weren't being an object of political focus, which was in the aftermath of the flood, and I was still there in the 2015	Awareness of previous flood response and risk
	P4: I moved up out from the flood zone, happily because my old house flood, but a lot of my friends were still there and they were flooded again. It was interesting comparing their experiences in 1982 and 2015. I'm happy to talk about that not to bring any cultural heritage issues but I can talk about the 19 th century terraces house in that area coping with the flood.	Reference to previous floods
Risk Awareness	P1: I had a curious experience of the 2015 flood because I'm living in York but I completely didn't notice them. Because was during boxing day, it was about day 5 when I realised that there was a flood because I wasn't in the centre of York and I	There are different kind of awareness: the one of the past experience the one of the current risk and the one of future risk.

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	<p>wasn't in touch with work.</p> <p>P4: Whereas I couldn't get out of the bottom of my Rd.</p>	<p>Risk awareness depend of the location. There is an intimate relation between the geographic location of the house and the user perception of the risk. In the case of York the city centre was badly damaged die to the Foss barrier failure.</p>
<p>Local flood culture</p>	<p>P1: As soon I realised that it took me back at time when I was seriously involved in Yorkshire flood in 2007, when a torrential rainstorm moved across Yorkshire and flooded 30'000, houses in Doncaster Sheffield and Hull. I was working as an Environment Director in the Government Office; I was in charge of the recovery process for the next six-month full time and after two-year part time.</p>	<p>Reference to previous floods</p>
	<p>P1: I learnt a lot of lessons then some of which were useful the aftermath of the 2015 flood but a lot of which weren't relevant for York or different or sideways for what York needed at that time. There are a lot of different phases on the flood and people were involved in a lot of different ways.</p>	<p>Contrast and differences. Every events has its own problematics and issues</p>
<p>Risk Awareness</p>	<p>P2: (13:22) My experience was Christmas day I spent in Harrogate and the morning of boxing day I came back and just managed to get out of the Knaresborough area that was flooded so coming into York, because I came through Clifton bridge, the water levels were arising so I arrived in Bootham which is above the flood level.</p>	<p>Location to be aware of the risk.</p>
<p>Communication</p>	<p>P2: I just managed to get in and then we were strangled because everywhere was flooded and the the army knocking to every door and saying: "Do you want to get out?"</p>	<p>Rescue forces communication</p>
<p>Risk Awareness</p>	<p>I knew that we were above the flood level so I say no I don't want get it out.</p>	
<p>Issues:</p>	<p>P2: It was interesting to witness the lack of</p>	<p>Difficulty to understand</p>

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<p>Lack of information</p>	<p>information about what was going on and how was it been tackled. The experiences of tenants and landlords weren't reacting to what it happed Lot of shopkeepers were blocked to act because the landlord weren't available.</p>	<p>the user's role in terms of responsibilities and interventions.</p>
<p>Local flood culture</p>	<p>P2: I remember the floods in the 70s when York and Selby areas was extremely flooded. I remember aerial photographs of Selby area that was completely flooded except for the church and the graveyard that was above that critical level. The aerial photographs show the historic pattern or settlements related to flood levels but looking back it was the lack of information about what was happening and how people were tackling it.</p>	<p>Reference to previous floods Comparison with other cities Flood culture could be local but also extend to other experience</p>
<p>Local flood culture</p>	<p>P1: How did you know you were above the flood level? P2: Through the experiences of the 70s and the 80s you know how far the water would came up and also I have done an assessment of the depth of our basement in terms of flood levels.</p>	<p>Permanent architectural features (walls, staircase, windows, fences) or landscape elements (curbs, street bridge) represent a measure for people to understand the severity of the flood. As well official warning, people have developed a capacity to self-assess the risk.</p>
<p>Flood culture</p>	<p>P4: Concerning the Church it reminds me that during the tsunami in Japan, 5 years ago wasn't it? I was talking to a Japanese guy who said that upon that cost it was a place that the name translated literally is 'this is as far the tsunami is come'. This is the end point of any tsunami they never go further.</p>	<p>Broad awareness Cultural parallel Often in the local flood culture other flood-international experiences convey to enrich the flood narrative of a place.</p>
<p>Risk Awareness Communication</p>	<p>P6: I was living outside of York. It was quite exciting because my boxing days become a big news. I was following it quite kindly. The rolling news which they step down because of the festivity. So, I was using social media quite a bit,</p>	<p>News and social media helped to the awareness</p>

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<p>Preparedness</p>	<p>P6: like people from the centre of York that never flooded there was a sense of excitement but also the idea to do something to help. At that time, I was volunteering a couple of day at week at the York Army museum on Tower Street, and they did get flooded there was water in the basement. So, when they posted on Facebook the news that they were been flooded there was in me a bit of guilt consciousness 'should I go to help' but there wasn't any public transport, 4 and half miles away.</p>	<p>Volunteer action for disaster relief</p> <p>Issue: no coordination no emergency plan for the museum in case of flood</p>
<p>Communication</p>	<p>There was a slightly chaotic communication. I tried to get in touch with my colleges, one of them was away from York at that time. I did live in York in 2005 that was after a flood and at that time, and I had the feeling to be cut off like York was like an island trapped in within. The supermarkets were a bit empty after 3-4 days and it felt like an island.</p> <p>P2: it is my memory corrected that the telephone land line was off for 2-3 days?</p> <p>P7: (20:23) Yes, also the mobile signals and the reason for that was that they have built the BT building all the main exchanges and the power were in the basement.</p>	<p>Isolation physical and verbal</p> <p>Lack of communication and direction</p> <p>Infrastructures no prepared</p>
<p>Risk Awareness</p>	<p>P7: I live miles from York but I was in York on the boxing night trying to stop the water coming inside the Merchant Adventurers' Hall and I was reacting to the flood line warning.</p>	<p>Location dependent</p>
<p>Communication</p>	<p>P7: It was quite difficult to get the information.</p>	
<p>Local flood culture</p>	<p>P7: There was a flood warning in the afternoon, I went down the I look at the river, as I always do,</p>	<p>self-assessment the risk.</p> <p>Visual analysis</p>
<p>Preparedness</p>	<p>P7: and I moved the silver cabinet upstairs. The severe flood warning came in the evening, but only in the EA website I could find out that they opened the barrier.</p>	<p>Active prompt reaction defence</p>

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	<p>It was difficult to drive towards York because a lot of road started to be flooded. We tried to stop the water coming in, completely wasted of time, we sand bags the doors but we couldn't do anything with it.</p>	
<p>Recovery process</p>	<p>P7: But I think the recovery process was long and turgid. We had dryers for almost a year (10 months) in the under croft but HE said "you almost wasted your time after 6 weeks" because we got the relative humidity quite quickly no mould appears anywhere in the building.</p>	
<p>Adaptation measure</p>	<p>P7: The ancient fabric of the building, and I suspect they built in that way because the knew that was a flood area, so the medieval fabric recovered without any interferes from us. It was all the modern stuff from the 17th century pews and the chapel, that must be flooded few times but we had few problems with them, to the post 1982 addition. (when the Foss barrier was built) we haven't flooded since the 1982 because of the barrier and a result of that you can see in the immediate aftermath (of the 1982 flood): the power supply went a 1,5 mt on the wall. But around the end of the 1990's when we thought that we couldn't flood we put the silver cabinet in the under croft and a sophisticated alarm system in pump in the basement.</p> <p>Concerning the medieval fabric, it performed well in a couple of weeks. We could have open the museum after 6 week but the problem was that they put in 2009 the emergency lighting power unit on the ground floor without any flood protection.</p>	<p>The materials used in the building and the various architectural featured refer to the awareness of the risk.</p> <p>Less awareness manifest with wrong choices of architectural design</p> <p>Contrast old new</p>
<p>Recovery process</p>	<p>P7: The critical part was the emergency lighting. But we were extremely well supported about the insurance</p> <p>Yes they did. For example, for the silver cabinet the pay the half of the work to build what we had but they pay for resilient measures like the power unit for the emergency lighting is now in a water proof bound.</p>	<p>Insurance</p>

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Local flood culture	P3: My experience with the boxing day floods were influenced to some extent by a previous flood and I remember I was cycling home from the Kings Manor, and when I approach my house the water was getting deeper and deeper and was just on the top of the curb stone of the street. So actually, I had to paddle to get into the house and the water was on the top of the door step. I could see that there was water under the floor boards and within a couples of days that water disappear.	Visual analysis
Risk Awareness	However, my next-door neighbours, that must to be slightly lower than my house and their house was quite badly flooded. They had to take all the plaster off, replace all the floors the decoration and furniture. I thought I was lucky.	Relation with the neighbours Risk according to the location
Adaptation measure	Subsequent to that 10 years later in the same area the lady that was the other side it was built a new building, I was intrigued to see if the builder set the new building at least 450 mm higher to the ground floor level.	
Risk Awareness	P1: The awareness. I have a really good example. I just moved house and we were looking for a house in villages to the west of York. There was a nice little cottage that would have been perfect but I realise that there were some new buildings in style of 19 th century cottages but they were built 2,5 mt higher. So, we didn't buy the house because was a clear indication of flood risk.	
Risk Awareness	P3: But I was I going to say is that when I heard on the TV that the Ouse burst its banks quite badly, the first thigh I went to the bedroom window and I look at the bottom of the Knavesmire Road and I thought that there was a lot of water.	TV communication Visual analysis

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<p>Risk Awareness</p>	<p>P3: My experiences and memory of that flood keeping looking at the bedroom window to see how far the extent of the flood flow come across the Knavesmire because prior to that earlier flood they did some drainage work on the Knavesmire and they a flood system that discharge to Bishopthorpe Rd and to the Ouse.</p> <p>P1: Which is good for some people. In any flood event, there are clearly circles of anxiety.</p> <p>P3: I was within that circle of anxiety and that was my memory of that flood. I kept walking into town and see Skeldergate that there was a good barometer.</p>	<p>Anxiety feelings</p> <p>Reference to previous floods</p> <p>self-assessment the risk.</p> <p>Visual analysis</p>
<p>Communication</p>	<p>P4: From the point of view of Huntington Rd on the communication side, because I was walking the dog and I noticed how dramatically come up. I was looking to my friend house and the situation was really bad and I started to put some sand bags by an open wire gate and against the door and by the time I turned around I thought: "Oh shit". In two minutes, it was running deeper and faster really noticeably and there was a friend that gave me direction to how to move and I manage to get back with really wet feet.</p>	<p>Visual analysis</p> <p>Rapid change and lack of communication</p>
<p>Communication</p>	<p>In the aftermath, the communication was quite good because the whole place was all full emergency services and rescue people with walking talking. So, police were happy to talk to us as we stood on the shore looking at was going on.</p>	<p>Help and sharing info</p>
<p>Recovery process</p>	<p>Here is a though there were only 650 houses flooded in the city of York at the exactly the same time there were 7000 houses flooded in west Yorkshire which didn't get to the news that's why we got extra 45.000.000 because the media come to York. The resources for emergency services were diverted from West Yorkshire to York that</p>	<p>Power of the media Significance – Value</p> <p>Attachment</p> <p>Connection between media attention and relief rescue</p>

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	<p>was unusual because the Foss Barrier. We were lucky because there was so much attention, and in the aftermath we received more help.</p> <p>P6: That's because York is more accessible or is that's more iconic?</p> <p>P4: More iconic</p>	
Local flood culture	<p>P1: The same thing happens in 2007 which in the iconography of the UK flood was the Gloucester flood. There was the flood in Tewkesbury but because the news were concentrate in expensive houses flooded nobody noted the terrace houses in Hull that was a serious object of contention because the people in Hull were ignored because the camera focused in the church of Tewkesbury until somebody died.</p>	Broad reference
Recovery process	<p>P4: In terms of what was the response, really interesting, everybody said in 2015 in the immediate aftermath, and then went on and on. I mean for me was like living in a ghost town, because all the houses except 3 were deserted, they couldn't find where to rent with their dog, but they regret it. Everybody else went.</p>	<p>Dislocation</p> <p>Long recovery process is connected to detachment and isolation</p>
Recovery process	<p>And the first people didn't come back till July and they said that the recovery process was too long (humidifier for months, no necessity to remove the whole plaster etc.) and they though it was partly to do with the insurance and partly to do with the increase of the health and safety anxiety. They were living in those housed perfectly happy since 1982 without being poisoned by whatever bleach into the wall. They were cross. They felt there was an overreaction.</p>	<p>No good communication or inclusion of people needs</p> <p>No explanation about the long time</p>

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Issues: Lack of Response	P2: I think the 2015 was different because of the timing because the other flooding happened during normal working day, where people were there, office, departments were open whereas the 2015 happened when people were away on holiday. Lack of response due to the timing.	Timeline of a disaster event has an impact on the response
Recovery process	P4: There was a strong sentiment in my community that the flood shouldn't happening if the maintenance and the renovation works were effective in the barrier. So, they felt quite angry about that. But they also felt puzzled about why took almost 1 y to go back. Most people spent Christmas of 2016 packing.	TOP-DOWN
Recovery process	P6: It's funny on how the insurance people oblige you to do the work or they don't give you money. There is a big sense of authority over you.	TOP-DOWN
Adaptation measure	P4: In case work we have seen quite a lot of response along the Ouse in term of resilience measures (Kitchen and electric adaptation). But in the posher houses.	Location and Risk exposure have an impact on the resilient measures adopted
Adaptation measure	P1: I don't think the adaptation processes has been driven to anything statutory. It's the individual.	
Adaptation measure	P4: It's the individual. And they are responding to the fact that in King's Staith they flood much more frequently than other areas.	Individual decision

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<p>Adaptation measure</p>	<p>P1: In terms of how people respond there are two things to consider, first there is a greater awareness that flood events are worst and more frequent and the second thing is that the consequences are potentially greater because the way that we live in terms of material in our houses (block plastic..)</p>	<p>Adaptation measures guided by Awareness</p>
	<p>and we got fragile system, If you think on way to adapt the telecommunication. If you think in how to adapt my house, it might not be relevant in 10-year time.</p>	<p>Long term solutions</p>
<p>Risk Awareness</p>	<p>P4: In the case of York there is this mythology that the common enemy were the water, instead was a failure of the State, whether was a single engineer or government failure of managing the risk.</p> <p>Issue of flood warning: Wrong communication of the risk, not accurate or efficient. (In fact you've to go to the EA website to find out the cause)</p> <p>However, one the major effect that we talk a lot more we each other, and I was given a lot of hints.</p>	<p>Understand the causes of the flood</p>

5.1.2 Post-it activity coding – York focus group

DEFINITION	CODE	COMMENTS
<p>Be prepared- plan the worse</p>	<p>Preparedness</p>	<p>Strategy/ Action</p>
<p>Ability to recover from sudden unexpected events</p>	<p>Recovery</p>	<p>Short term response and recovery - Strategy/ Action</p>
<p>Has City Council a strategy for the public? “acqua alta”</p>	<p>Preparedness</p>	<p>Governmental and local level</p>

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Timely and efficient manner	Recovery	Quality
Protect key infrastructure that cannot be moved	Preparedness	Strategy/ Action
Prepared, Tested Coordinate	Preparedness	Strategy/ Action
Resilience as resistance not absorption or accommodation (for example Huntington Rd)	Response	Endure the change, keep the community compacted
Resistance rather than the other defence	Response	Quality
Don't rely on the state/ government	Community empowerment	
Manual (Guidluine) for protection of building and or repairs	Training -Knowledge	
Keep valuables safe passport and photo in plastic box	Preparedness	Strategy/ Action
Rely on large scale flood protection	Preparedness	Strategy/ Action
Learn from the past learn the lessons of the history	Local flood culture	Memory
Is there a flood plan?	Risk awerness	
Be aware – don't be taken by surprise	Risk awerness	
Expect the worst	Preparedness	

5.1.3 Coding interview with Barry Beckwith

Name of Interviewer: **Alessandra Sprega (AS)**

Participant Name: **Barry Beckwith (BB)**

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Date(s) of Recording: 10/10/2017

Location of Interview: Red Tower (RT)

Code	Text	Comments
Local flood culture	<p>In the 12th Century (1155) when the first section of the eastern defence was built. The Walmgate Bar was the first and they built a wooden barricade up to the end of this building (RT) which was a natural water defence because in the 1069 William the Conquer when built the castle and he wanted the moat and the river Foss flooded creating the King's Fishpond. So, he needed to create a barricade to defend the east side of the city. [1:44] In 1345 they replace the wooden barricade with a stone wall, but they didn't replace the tower which remain in timber until 1419 when they decided to build a more substantial tower but they couldn't afford stone which was posh and expensive so they decided to employed the guild of tiles who used brick (which was cheaper). It took a year to build. So they use it as a watch tower until the [4:59] 1644 when York was under siege the RT was almost destroyed by a bomb. After was repaired using different materials (patched up) and was used for many things factory ... for 200 yeas until the 1856 when the Victorian [5:42] decided that they wanted reclaim this land.The building had a under floor level as you can see from the doorway that could be a water gate to use a boat. So they rebuilt the tower using the original brick for the outside and the Victorian brick for the inside. The tower that we look today is a Victorian reproduction. They reduced the high of the building and changed the floor levels. They changed the roof, originally was a flat roof, instead they built a medieval roof.</p>	History of the tower and flood defences
Resilient	The building was used as a council store until the	Community vision-

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<p>project</p>	<p>beginning of 2015 [9:25] when a lady decided that this building was wasted as a council store, and she had the idea to open a pop up cafe for the community. So it was open only on the Saturday with volunteer and we sell pieces of cakes a cup of tea to cover the cost. But the vision of the group is that this could be a long term project in which was envisage the redesign of the building leaving the cafe on the GF and on the FF a place for hire (community events). We are in the process to get the utility and electricity inside. And we open up an external access to make the area more accessible for elderly and disable people. We are contractors employed to redesign the building flood resilient.</p>	<p>Bottom up project ideas</p>
<p>Resilient project</p>	<p>We employed an architectural practice based in York, Holland and Brown, which had experience on historic building refurbishment. The project includes flood resilient measures such as the roller kitchen and storage area. Also the toilet is designed to be flood resilient. The utilities and electrical equipment are all designed above the demarcation flood line (thanks to the experience of the 2015 flood). It will be a lot of insulation and windows.</p>	<p>Past flood experience</p>
<p>Community agency and ownership</p>	<p>In January 2016 a feasibility study was conducted when we were using the tower as a flood distribution point to help the local community with the damage of the flood. We wanted to do a no profit organization so we created CIC (Community Interest Company) and we started to find funding through charity organizations and local authority grants (landfill tax) flood relief funding. We are having problem to put the utilities we can't start the project so we have raise our voice to the City of York Council. I mid-October we expect that the work will start</p>	<p>Relationship with the Council</p>

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<p>Local flood culture</p>	<p>Yes if we see the front the original foundation was made by stone and if you see the thickness of the walls has withstood the challenge of the weather.</p> <p>Just in the walls you can see the salt efflorescence (water mark). We lose just some materials documents and storage.</p>	
<p>Local flood culture</p>	<p>I joined this group of volunteers in the summer of 2015, they'd already been operating for five or six months prior to me joining them. But the group of people that were operating, some of them were relatively new to York and some of them weren't old enough to remember, when I joined them it was summer time and there was no, it never occurred to me to say to anybody that there's a chance this might flood, it never occurred to me that this could happen but when the floods came, of course then it brought it all back to me the days I used to ride my bike through the floods down here. But it was since the introduction of the flood barrier, they've done a lot of flood alleviation, the river Foss down here one of the main reasons it used to flood down here was its connection to the Tang Hall Beck because the Tang Hall Beck used to flood. So, the environment agency put a lot of work into flood alleviation from Tang Hall Beck from the river Foss then created the barrier. So really my historical recollection of the flooding in this area wouldn't really ring true based on the work that had been done since 2000.</p>	<p>Reliance to Flood barrier</p>
<p>Flood memory</p>	<p>I created some panel with the pictures of the flooding. I am going to redo this panel and put flood display for the Heritage Open Days.</p>	<p>Bottom up</p>
<p>Local flood culture</p>	<p>No there wasn't, since the introduction of the flood barrier has never been an issue, because you believe that the amount of money and effort of the</p>	<p>Reliance to Flood barrier</p>

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	EA.	
Community agency and ownership	It took two months to have the stone floors flag to be dry out and we received assistance from voluntary groups (ex. Mormon church of Acomb) long before any official help. They provided food and cleaning product. We didn't receive any advice on how to clean no from the local authority although it was a LA building. To dry out 3-4 month the buildings and the floor but the walls still drying out. The contractor will be cleaning again to comply to hygiene regulation	

5.1.4 Coding interview with Geoffrey Holland

Name of Interviewer: **Alessandra Sprega (AS)**

Participant Name: **Geoffrey Holland (GH)**

Date(s) of Recording: 05/02/2018

Location of Interview: HOLLAND BROWN ARCHITECTS York.

Code	Text	Comments
Expert /community relationship	The community were consulted by the client body and I think they did participate providing quite a lot of inputs which formed the original brief that the client came up for it and that is how we interpreted. For instance, the usage of the up room, there were lots and lots of ideas and the truth is that it has got to be kept as a very simple and flexible space for small meetings and things like that. So, those ideas came forward but it's limited to what can be achieved and hold in terms of numbers. And so it was inevitable that it's going to be a small simple and flexible space. Downstairs most people would want a small kitchen and a toilet.	Community vision- Bottom up project ideas
Expert /community	Yeah The was also different project and activities	

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relationship	connected to the building like grown they own products and that got people interested and involved. But the building has always been open to the community to be involved and at the end of the day is a community facility and the client has some projects or event that involve the community.	
Resilient project Adaptation measure	The all scheme has been on the go since 2015 just before the flood, so what we tried to do is exclude any form of timber from below 1.4 meters. (which is the flood level). Everything a part from few stair treads are in metal. All the doors partitions are in metal and the services are all fed from first floor level downwards and it is a reversible project. Inevitable you have to fix some things but I don't think it does a huge amount of harm to the historic fabric. The character hasn't change drastically. It's still quite dark inside, it is still a brick building, we kept the same roof structure. The things that we have introduce is just to make it function properly and readily.	Preparedness

5.1.5 Coding focus group: "Building Amatrice Resilience"

Researcher: Alessandra Sprega (AS)

Participants: P1 male, architect and member of the CCA, P2 female, architect and member of the CCA, P3 male, retired, P4 male, retired, P5 male, representative of the commerce association, P6 female, retired, P7 male, architect and member of the CCA, P8 male, retired, P9 male, engineer and P10 male, member of the CCA.

Amatrice, 26 Luglio 2019

Code	Text	Comments
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<p>Reconstruction approach</p>	<p>P1: Rispetto all'approccio post-sismico che c'è stato a me sembra che è stato principalmente 'verticistico' nella formazione delle prime decisioni. Non mi riferisco alla fase di emergenza, ma alla fase immediatamente successiva a mio avviso c'è stato un approccio 'verticistico' che ha escluso le tante sensibilità della popolazione.</p>	<p>Top down approach Exclusion</p>
<p>Issues: no communication</p>	<p>P1: E questo ha creato un distacco fra quello che è il livello istituzionale e quello della popolazione e ha alimentato un distacco interno alla popolazione stessa. Aumento delle conflittualità. Questi fenomeni probabilmente sarebbero stati attenuati da un coinvolgimento diretto delle persone che le facesse sentire partecipi del percorso che si stava costruendo.</p>	<p>Conflictual within the same community due to their exclusion</p>
<p>Grass root activity- response</p>	<p>P2: Il 24 Agosto stavo a Cornillo Nuovo, una frazione a 5 km da Amatrice. Avevo un negozio lungo il Corso di Amatrice. La mattina alle 8 sono andato a vedere e l'ingresso era tappato dalle macerie. Dopo 20 gg sono riuscito a recuperare tutto, c'erano dei quadri dell'800 importanti e quando mi sono sentito tranquillo, sono andato per le chiese degli altri paesi per sensibilizzare la cittadinanza e fare un gruppo per dare una mano al MIBACT, che è stato assente purtroppo.</p>	<p>Need for a raise of awareness Absence of institution</p>
<p>Grass root activity- response</p>	<p>P2: Quindi volevo creare un gruppo di persone autorizzate per recuperare elementi di pregio artistico e culturale nelle varie chiese che sono più di 100. Questo non è stato possibile, nessuno mi ha risposto e sono andato da solo dove è stato possibile per recuperare questi oggetti d'arte.</p>	<p>Disappointment for the lack of participation and interest</p>

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<p>Emotions</p>	<p>P3: La mia esperienza dopo il terremoto, dopo un primo momento di smarrimento, è stata che mi sono illusa che c'era la possibilità di riunire le persone del luogo che conoscevano bene il posto per poter parlare di come intervenire e ricostruire. Questa ipotesi è ben presto svanita, mi sono resa conto che di questa impotenza. Non soltanto a livello di amministrazione ma anche di ogni istituzione. Io</p>	<p>Illusion, Frustration impotence and Disappointment</p>
<p>Grass root activity- response</p>	<p>P3: Io all'inizio, siccome mi occupavo del museo ho pensato al recupero degli oggetti museali. Ho provato a contattare la soprintendenza ma ho trovato le porte chiuse. Loro si sono giustificati per una questione di sicurezza.</p>	<p>Disappointment for the lack of inclusion</p>
<p>Ownership</p>	<p>P3: Io non ho voluto dire che siamo i proprietari di queste opere, ma loro non si sono messi in contatto con il comune e hanno agito da soli. E questa è una cosa che ci ha offeso molto, ci ha reso inutili su qualcosa che è il nostro patrimonio. Senza sapere quando e come gli artefatti venivano recuperati. Non abbiamo saputo nulla. Noi siamo i legittimi custodi di queste opere vogliamo sapere almeno un elenco delle opere recuperate. Non me l'hanno dato, alla fine sono stata io a mandare un elenco di queste opere come le conoscevo bene.</p>	<p>Professional Agency neglected</p>
<p>Issues: No communication</p>	<p>P3: Quindi la mia sensazione è una sensazione di impotenza e frustrazione perché non sei in grado di fare nulla, vorresti fare perché hai la conoscenza ma non hai l'opportunità di mettere in pratica quello che si conosce. Nel momento dell'emergenza bisognerebbe riunire le persone</p>	<p>No transparent communication with the institution</p>

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	<p>che hanno un minimo di esperienza per agire al meglio. In questo caso non è successo. Le istituzioni sono andate per conto proprio, senza chiedere consiglio agli esperti locali. Io ad esempio sono andata a Città Ducale per riconoscere delle opere perché c'erano dei problemi con l'assicuratore. Quindi il mio rapporto con il terremoto in relazione al poter fare è stato questo.</p>	
<p>Issues: Depopulation</p>	<p>P4: Io sono un pensionato, sono tornato dalla Germania, dove ho vissuto per parecchi anni, ad Amatrice. È successo quello che è successo, e ci hanno mandato a San Benedetto negli Alberghi. Ci sono stati molti morti, molti sono andati via e non ritornano. Ci hanno fatto queste casette SAE e abitiamo lì, quasi tutti. È così la vita.</p>	<p>Passive description of the event</p>
<p>Issues: Unpreparedness</p>	<p>P5: Io avevo un'attività sul corso e avevo casa sul corso e nato e cresciuto sul corso. Il problema più grande oltre del poco coinvolgimento e il poco ascolto, ho notato fin da subito una grande impreparazione tra tutti i soggetti che dovevano tutelarci. Da subito il terremoto, alla creazione dei centri commerciali che hanno causato uno scollamento della comunità. Non si è guardato al lungo periodo ma al breve, dando solo segnali mediatici. diciamo è stato più un palcoscenico questo terremoto che una tragedia come è stato</p>	<p>No long-term solution Wrong use of the media-misleading information</p>
<p>Economy recovery</p>	<p>P5: Essendo stato anche presidente dei commercianti, questo guardare al breve periodo ha dato e da difficoltà per la crescita di Amatrice perché la rinascita oltre che dall'arte viene anche dall'economia, senza economia non ci sarà lo sviluppo del territorio. Penso che magari andava</p>	<p>Fragmented community</p>

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	<p>dato uno sguardo più attento su come strutturare il paese. E siccome la comunità è stata spezzettata e questo spezzettamento ha creato ancora più solitudine.</p>	
<p>Issues: Unpreparedness Community exclusion Awareness of the risk</p>	<p>P5: lo credo che sarà difficile rivedere Amatrice com'era anche tra tanti anni. I problemi più grandi sono stati impreparazione, come se fosse stato un caso straordinario quando sappiamo ce stiamo in Italia e i terremoti esistono e ci saranno sempre.</p> <p>Non è stata coinvolta la popolazione non creando dei gruppi di lavoro come si era richiesto. E non c'è stato uno sguardo al futuro. A livello umano ho notato una cosa da parte di tutta la popolazione, che il vuoto che ha lasciato il terremoto doveva essere riempito da qualcosa. Chi lo ha riempito a livello materiale, chi invece aumentando il proprio ego nel senso che ho notato la voglia di essere protagonisti a tutti i costi quando invece dovremmo essere tutti uniti e dovremmo essere più soldati che generali.</p>	<p>The emptiness left from disasters, if not managed by the institutions, allows people to take advantage of the vulnerable situations.</p> <p>Individual response</p>
<p>Precarious accommodation</p>	<p>P6: Io sono una pensionata, Il giorno del terremoto sono uscita da casa e ho visto i palazzi che sono scesi giù: il tetto intero e le mura tutte distrutte. Noi siamo andati nei campi da tennis e abbiamo aspettato il giorno, poi la protezione civile ci ha fornito delle tende in cui siamo stati due tre mesi. Poi le hanno tolte per mettere le casette. Io sono stata ospite da una parente in Abruzzo per 6-8 mesi e a marzo sono tornata per vivere ne SAE. La paura è stata tanta, la mia casa non c'è più ma nel SAE mi sento sicura.</p>	<p>Passive description of the event</p>
	<p>P7: Sono un amministratore del comune adesso</p>	

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<p>Perception of the risk</p>	<p>e lo ero anche la notte del terremoto e diciamo che quelle ore sono state determinanti perché hanno cambiato la nostra vita e anche il senso di rapportare le cose. Già adesso abbiamo dimenticato mentre magari i primi mesi ti rendi conto che la stupidaggine che volevi a tutti i costi non era importante, perché in quelle ore ho capito l'importanza della vita che è la vita stessa. E quando vedi i tuoi compagni di classe che rimangono da soli perché la loro famiglia non c'è più allora ricalibri tutte le priorità. Però loro ci hanno spinto ad andare avanti.</p>	<p>Different perception of realities and priorities</p> <p>Time and memory</p>
<p>Communication of the disaster</p> <p>Learn from history</p>	<p>P7: lo mi ritengo fortunato perché il 24 agosto non ho perso nulla. Io mi trovavo a Cornillo Nuovo e non abbiamo percepito che il problema era amatrice. Lo abbiamo capito dopo due tre ore, dopo che sono iniziate ad arrivare le notizie di Amatrice e gli elicotteri. Non è stata semplice, perché noi giovani potevamo abbandonare tutto e andare via, invece io che quell'anno mi mancava un esame di architettura, ho deciso di fare la tesi sulla ricostruzione su una parte del centro storico. Il termine resilienza per me era quello di trovare una soluzione. Capire come le altre comunità come amatrice avevano reagito. Ho capito che quelle cose che loro avevano vissuto noi le avremmo vissute di lì a poco. Perché tutti gli errori che sono stati fatti si potevano ripetere. Perché in Italia i terremoti ci sono sempre stati, ho fatto uno studio sul terremoto che c'è stato nel Belice e in Friuli, che sono due opposti anche nei metodi di ricostruzione.</p>	<p>Slow communication after the disaster between Amatrice and its fractions</p> <p>Resilience is find a solution by comparing previous experience of community facing a disaster</p> <p>Awareness of the risk</p>

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<p>Resilience</p> <p>Resistance</p> <p>Memory</p> <p>Adaptability</p>	<p>P7: Poi vivendolo anche all'interno dell'amministrazione non è semplice coinvolgere tutti e si ci sono stati degli errori ma molto è stato fatto in tre anni. C'è ancora da fare tantissimo. Ho visto da parte delle persone dei comportamenti buoni e cattivi, ma come da tutte le parti. Comunque non vedo il bicchiere tutto vuoto anzi lo vedo mezzo pieno, perché io non mi arrendo. E anche se oggi siamo pochi perché gli altri sono sfiduciati, il messaggio che voglio dare e che se non abbiamo abbandonato prima Amatrice perché farlo ora. Quindi il termine resilienza per me è essere resistenti senza dimenticare il passato, ricalibrando le priorità.</p>	<p>Positive attitude</p>
<p>Tradition</p>	<p>P8: Io sono originario di Visciano che ha subito la stessa sorte devastante di Amatrice. Io mi sono sempre chiesto una cosa: che cosa avrebbero fatto i nostri padri antichi? Avrebbero rifatto le case male dal punto di vista sismico ma seguendo la tradizione che era innata in loro, certamente non distruggendo tutto quello che il terremoto non ha toccato. Chiaro per gli affreschi caduti la perdita sarebbe stata immensa non avendo i nostri avi esperienza di restauro, ma dal punto di vista sociale comunitario e paesaggistico.</p>	<p>Relating to previous experience</p>
<p>Style –Tradition</p> <p>Reconstruction</p>	<p>P8: Noi che cosa abbiamo fatto al contrario? Io nonostante sia stato fortunato a non aver avuto nessuna perdita, mi guardo intorno e vedo una distruzione. Il territorio che non era stato toccato dal sisma lo vedo completamente cementificato. Non solo con opere che sono avulse nella nostra tradizione, tipo la scuola e completamente</p>	<p>Territory changed by the irresponsible intervention</p> <p>Breaking with the</p>

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<p>Precarious-temporary buildings</p>	<p>decentrata. Io sono un nonno che andava a prendere i miei nipoti e vedevo quel tipo di scuola 1927 che era bellissima e adesso io devo subire di vedere una scuola che non rispecchia la mia tradizione stilistica. Lo 'Stato' non ha costruito nulla di nuovo definitivo ed è assente. Se fossi stato io Papa io avrei chiamato i migliori architetti per rifare amatrice con una fantasia non a cubi e scatoloni come la scuola nuova. Questo poteva essere un modello perché il moderno di oggi sarà l'antico di domani.</p>	<p>tradition and the past</p> <p>Space for a new architecture</p>
<p>Reconstruction</p>	<p>P9: Io mi sono trasferito qui nel 2015, per certi versi il terremoto ha rappresentato un elemento di grande potenzialità umana. Perché in una società come la nostra in cui cerchiamo sempre la comodità la tranquillità, quando accade una cosa del genere può sembrare una potenzialità.</p>	<p>Human potential to develop in a better way</p> <p>Positive attitude</p> <p>Resilience</p>
	<p>P9: Dal punto di vista umano c'è stato. Una cosa che mi colpì subito nelle ore successive, la percezione iniziale non è stata traumatica perché da bambino ho vissuto intorno a 10 anni in un edificio di 10 piani che oscillava. Infatti sono uno dei pochi che vive in una casa in muratura rifiutando la SAE. Il mio confronto con il terremoto è stato diretto e di curiosità, sia dal punto di vista professionale, essendo ingegnere, ero affascinato nel vedere l'edificio sollecitato.</p>	<p>Curiosity</p> <p>Personal experience</p>
<p>Reconstruction Community</p>	<p>P9: La cosa che mi ha impressionato era il fatto che riguardava i rapporti umani, persone che non si parlavano da anni dopo il terremoto si trovavano a mangiare insieme. Il terremoto quindi, ha riportato l'attenzione sulla condizione umana creando comunità. Ad esempio a Leprosi e Capricchia le comunità sono state molto presenti. A Capricchia</p>	<p>A new solidarity and overcome of past issues</p>

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	sono aumentati gli abitanti dopo il terremoto. Abbiamo vissuto situazioni al limite. Poi arrivando gli aiuti si ritorna più o meno agli interessi iniziali.	
Issues: Corruption	P9: Dal punto di vista dello Stato, in una fase iniziale sembra impreparato di dare risposte e successivamente queste sono guidate da interessi economici . Dovremmo resistere più alla calamità dello Stato che a quella naturale, perché è lì che subiamo.	No good government management. Decision driven by personal interests
Precarious accommodation	P10: Sono un amministratore alla prima nomina. Abbiamo un ristorante. La nostra abitazione ci ha permesso di uscire incolumi anche se da lì a pochi giorni abbiamo avuto una perdita in famiglia, mio nonno a causa di un malore è morto. Abbiamo vissuto in tenda per due mesi, e poi siamo andati all'Aquila.	
Work condition	P10: A livello lavorativo c'è stato un anno di stop, ma poi amatrice avendo una tradizione turistico culinaria le cose non sono state tragiche rispetto ad altri tipo di attività. Ho un ristorante nell'area food.	
Issues: Unpreparedness Community and specialist exclusion	P10: Quella notte io ho sentito Amatrice crollare in diretta. Io studio e sono un appassionato di storia locale e facevo l'accompagnatore turistico. Ci siamo ritrovati tutti i beni culturali seriamente compromessi. Noi non siamo stati protagonisti né per le scelte dei beni culturali né per tutto il resto. Siamo andati in balia delle decisioni a livello nazionali e regionale che on hanno tenuto minimamente conto di noi. Probabilmente perché eravamo in numero esiguo che non abbiamo potuto opporre resistenza.	No consideration for the local specialists
Issues: Corruption	P10: Purtroppo c'è stata tanta corruzione . Infatti il centro storico di cui noi parliamo è grande quanto uno stadio. Possibile che dopo 3 anni ancora non si è iniziato a ricostruire? Non è la prima volta che la città è stata colpita da eventi calamitosi. Infatti	Historic centre is not big so shouldn't be difficult to manage the reconstruction

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	anche nel 1600 c'è stato un terremoto che ha distrutto Amatrice ma la comunità ha ricostruito pietra su pietra gli edifici, senza avere i mezzi che abbiamo noi. Per questo sono un po' basito.	
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Post-it activity coding – Amatrice focus group

DEFINITION	CODE	COMMENTS
Resilienza è fare nuovi figli	Recovery	Social reconstruction Strategy action
La resilienza è inversamente proporzionale al benessere	Economy	
Che si potrebbe fare di nuovo? Perché com'era e dov'era?	Reconstruction	
Tenacia	Preparedness	Quality
Capacità di subire una perturbazione ritornando allo stato iniziale in un tempo ragionevole	Preparedness	Quality
Dare fiducia al cambiamento	Change - Adaptation	Strategy
Economia	Response	Strategy
Coinvolgimento	Community empowerment	Strategy
Medio lungo periodo	Response	Sustainability
Certezze	Response	
Ricostruzione d'animo	Reconstruction	Cultural background- Social

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		reconstruction Strategy action
Resistenza	Response	Quality
Solo il ricordo resiste al terremoto	Local seismic culture	Memory

5.1.6 Coding interview with Mario Ciaralli

Researcher: Alessandra Sprega (AS)

Participant Name: Mario Ciaralli (MC)

Roma, 30 April 2019

Code	Text	Comments
Unpreparedness Community exclusion	lo abito in un paesino vicino Amatrice, Cornillo Nuovo e fortunatamente non ho avuto lutti. Mi sono attivato perchè a me interessa la cultura del luogo, l'arte. E dopo qualche settimana dopo il terremoto ho visto che nessuno pensava al recupero di queste cose. Dopo il terremoto del 24 Agosto si potevano salvare molte cose perché le chiese erano ancora in piedi, si potevano salvare affreschi mettendo in sicurezza le chiese soprattutto San Francesco in Amatrice la chiesa più importante. Allora attraverso FaceBook ho cercato di coinvolgere un gruppo di persone per fare un comitato presentando il nostro Cv al comune al prefetto di Rieti e al MiBACT, per farci dare un permesso per recuperare gli oggetti d'arte, ma purtroppo non siamo stati ascoltati.	Citizen led-action Individual response Relationship with the institutions
Grass root activity- response	La protezione civile se non hanno l'autorizzazione del MiBACT non si muove nessuno. E i funzionari del MiBACT venivano da Roma una volta a settimana sul luogo, mentre le altre istituzioni erano fisse ad Amatrice. Padroni del territorio senza conoscere ciò che si andava a vedere. Io ho cercato attraverso i social di formare un gruppo "Prima che sia troppo tardi", ma purtroppo questa iniziativa dal basso non ha avuto successo. Quindi sono andato da solo a recuperare oggetti d'arte dove possibile (tabernacoli, statue, candelabri ecc). Ma nessuno mi ha aiutato né l'amministrazione comunale né i	Citizen led-action Individual response

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	cittadini. Come nella chiesa di Retrosi che con una signora ho recuperato degli oggetti d'arte.	
Personal experience	Purtroppo io avevo prima del terremoto problemi con il sindaco, quindi aiutare me significava andare contro l'amministrazione comunale, che non si è interessata del patrimonio artistico di Amatrice.	
Unpreparedness Community exclusion	Si esatto, dopo il primo terremoto S. Francesco non era molto danneggiata ma l'altare barocco non è stato tratto in salvo e dopo il 30 ottobre è venuta giù la parete e abbiamo perso l'altare. Il 18 gennaio ci sono state 3 scosse in poche ore che hanno fatto crollare ciò che era rimasto in piedi. Anche S. Agostino ha tre nicchie con degli affreschi del 1400. Io ho visto recuperare dopo il 24 agosto un dipinto dell'800 dai vigili del fuoco, senza valore artistico invece degli affreschi. Hai un motivo per ricostruire Amatrice lì dov'era perché te lo impone la chiesa. Ma anche S. Francesco con affreschi del 1400. Dal 24 Agosto al 30 Ottobre non sono stati messi in sicurezza.	Late response Undermine local experts and voices
Reconstruction approach	Purtroppo abbiamo avuto un soprintendente assente e si è perso molto. C'è stata un'apatia totale. E non so quello che si è recuperato. Intorno a un monumento tu puoi ricostruire la città, invece purtroppo non ci sono più punti di riferimento. Io vorrei rivedere Amatrice com'era e dov'era, ovviamente antisismica come è successo a Venzone. A me è passata pure la voglia, senza i riferimenti storico artistici. E poi non ti coinvolge nessuno.	Com'era dov'era
Local seismic culture Heritage and risk Awareness	Certo l'identità si recupera conoscendo le proprie radici. Che è un motivo d'orgoglio. Invece sia la curia che i beni culturali non si sono mossi in	Identity definition Minor Heritage

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	<p>tempo. Al contrario a S. benedetto a Norcia patrone di Europa, si è mosso il Vaticano. Mentre i nostri beni culturali sono considerati 'minori'. Mentre l'amministrazione comunale si non si è interessata per la salvaguardia degli stessi. Infatti anche nei poli commerciali non vi è uno spazio culturale per promuovere l'arte locale.</p>	
<p>Unpreparedness Community exclusion</p>	<p>Non c'è stato un coinvolgimento della popolazione, e della gente che conosce la storia di Amatrice ma non è stata interpellata.</p>	
<p>Grass root activity- response</p>	<p>Bisognerebbe iniziare dalla politica e responsabilizzare i giovani. Responsabilità è resilienza. Dobbiamo darci da fare per Amatrice. Purtroppo non c'è più niente è solo terra battuta. Questo mi angoscia. Non bisogna ripetere le stesse tecniche costruttive, perché hanno utilizzato sassi di fiume legati con la terra. Però riproporre la stessa volumetria colori, ed elementi architettonici. Almeno per il centro storico bisognerebbe avere una deroga. Purtroppo ci sono stati pochi incontri pubblici tra il sindaco e la popolazione. Non c'è un centro di aggregazione. (cit. DRAQUILA) Perché i centri di aggregazioni potrebbero favorire la creazione di gruppi di persone. La gente che si riunisce fa paura.</p>	
<p>Reconstruction approach</p>	<p>La comunità di Amatrice non era coesa. Anche il presidente della proloco non era di Amatrice. Abbiamo perso molta della nostra tradizione. I cantabbraccio le ciaramelle i riti funebri l'ottava rima. Con lo spopolamento degli anni 50 queste tradizioni sono state perse, perché i nostri amministratori erano ignoranti. Da fenomeni quotidiani dovrebbero diventare cultura. E la gente dopo il terremoto deve stare scomoda per pretendere la ricostruzione.</p>	<p>Local and intangibile traditions</p>

6 Appendix

6.1 GIS analysis

GIS software has been used to manage quantitative data through different type of data base. In order to set up the database is necessary to compile an excel table containing in the columns the fields of the analysis and in the rows the different class features drawn which are classified with a unique identifier number (ObjectID). The excel tables related to the case studies are attached in a separate file. This method allows making query and analysing in a quantitative way the data gathered as illustrated in the online manual of Esri (Geographic information system company).

In order to interrogate the data is possible to perform with GIS a set of query defined technically as SQL (Structured Query Language). I have mainly used attribute query which is a selection of spatial feature in the database according to the desired attribute values. The formulation of a query is performed by Boolean expression which include and exclude different feature in the available attribute using mathematical symbol such as comparisons ($>$, $<$, $=$, $>=$, $<=$). The selection by attributes generates various thematic maps that aim to visualise the resilience of the historic buildings in the both historic centres in terms of perception of the risk, preparedness, traditions and values. The details of the thematic maps are presented in the case studies chapters. Following an example of the pipeline used for develop the Amatrice map:

EXAMPLE OF THE PIPE-LINE AMATRICE GIS

OPEN ArcMAP:

Create a File GEODATABASE:

Catalog -> Connect to folder (on your desktop) -> Right click -> Create a new file
Geodatabase name it as "Base MAP"

Specify the Coordinate system (right click on the feature) and the units (right click
on the map)

Join table > This command connects the excel database (spreadsheet) to the map

Table excel save CVS format

Join attribute table using OBJECT ID

Validate join

Example of Query

Selected by attribute: This feature Select allow to perform a SQL query expression
that is used to select features that match the selection criteria. This will highlight
specific characteristic in the data base.

```
"Amatrice_lista_03122019.csv.Valore_dei_luoghi" LIKE '%Sociali%'
```

```
"Amatrice_lista_03122019.csv.Valore_dei_luoghi" LIKE '%Bellezza%'
```

```
"Amatrice_lista_03122019.csv.Valore_dei_luoghi" LIKE '%Tradizioni%'
```

```
"Amatrice_lista_03122019.csv.Valore_dei_luoghi" LIKE '%Cultura%'
```

```
"Amatrice_lista_03122019.csv.Valore_dei_luoghi" LIKE '%Storici%'
```

```
"Amatrice_lista_03122019.csv.Valore_dei_luoghi" LIKE '%Gioco%'
```

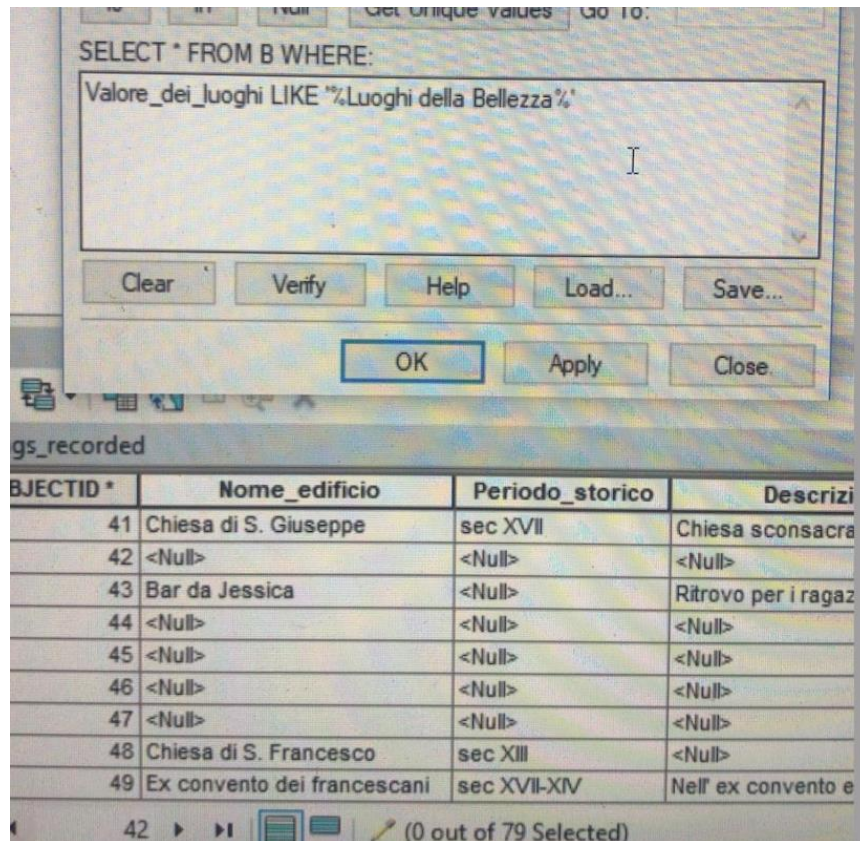


Figure 1: Screenshot of a QUERY in ArcGIS map © image by the author

Create a new layer

Export data -> shapefile -> create a new layer

Data classification

This GIS feature helps to create thematic maps “A thematic map is a specialized map made to visualize a particular subject or theme about a geographic area.” (wiki.gis 2018). I used this function to create different thematic maps for the two case study. Below an example of the thematic maps that show the perception of the risk before the flooding in York.

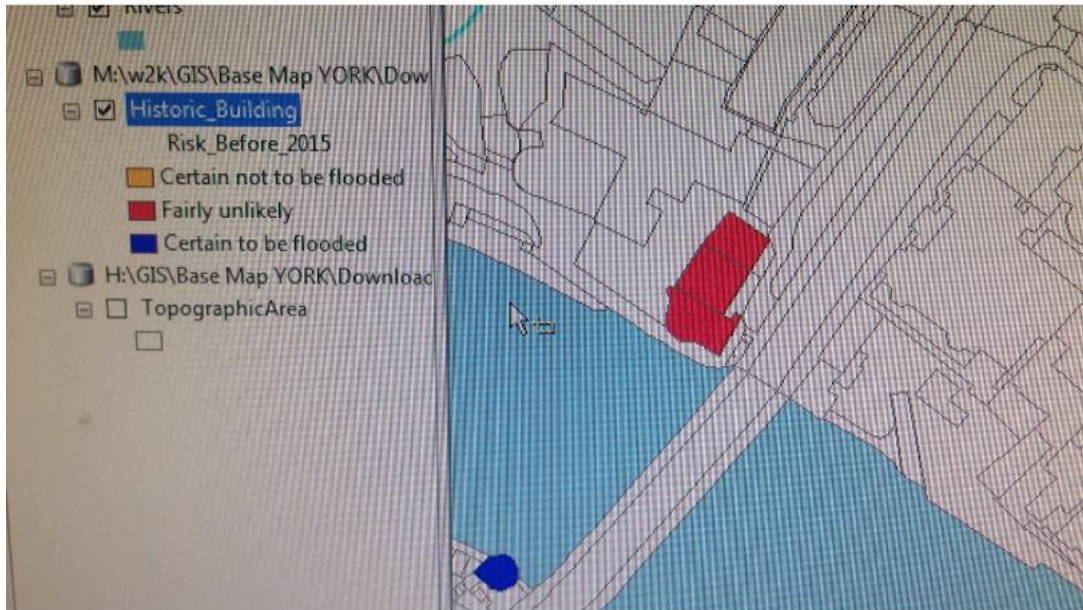


Figure 2: Screenshot of a data classification for the York map.

6.2 File Excel list

Please see the additional material to consult all the GIS metadata

GIS York spreadsheet:

1. GIS data York
2. Mapping the resilience of York_Questionnaire responses
3. York_GIS resilient assessment
4. York_GIS vulnerability assessment

GIS Amatrice spreadsheet:

1. GIS data Amatrice
2. GIS Mapping value Amatrice
3. Mapping the resilience of Amatrice_Questionnaire responses

7 Appendix

7.1 Photo research diary York case study



Figure 3: Geographical location of York



Figure 4: Flood 1947. Children playing in the water outside York Carriage Works. The crowds in the background at the junction to Poppleton Road and Holgate Road may well be waiting for transport through the water ©cyc.sdp.sirsidynix.net.uk



Figure 5: Flood 1947. View from Lendal Bridge ©cyc.sdp.sirsidynix.net.uk



Figure 6: Flood 1947. View of Clifford Street, York ©cyc.sdp.sirsidynix.net.uk



Figure 7: Flood 1982. Premises on Tower Street floods©cyc.sdp.sirsidynix.net.uk



Figure 8: Flood 1982. Boys playing in the flood water at FossBank©cyc.sdp.sirsidynix.net.uk



Figure 9: Flood 1982. A motorcyclist (NB no crash helmet) makes his way through the flood water on Navigation Road ©cyc.sdp.sirsidynix.net.uk



Figure 10: Flood 1982. 11. Walking along the raised wooden platforms along Hetherton Street towards Marygate. ©cyc.sdp.sirsidynix.net.uk



Figure 11: Flood2015 Walmgate ©Catherine Sotheran



Figure 12: Flood2015 Red Lion ©Catherine Sotheran



Figure 13: Flood 2015. Merchant Adventurers' Hall © Resilient York project



Figure 14: Flood 2015. Flood indicator in the Merchant Adventurers' Hall' ©images by the author



Figure 15: Flood 2015. Flood indicator around York city centre. (Above) Merchant Adventurers' Hall, (below left) Tower gardens and (Below Right) Kings arm pub ©images by the author



3. Resilient York: the conference

The Resilient York conference was held in the Department of Archaeology, the King's Manor, York on 4 November 2016. The conference explored York's experience of the major flooding that occurred in December 2015.

We brought together speakers from local and national organisations to look at how we can be better prepared for the future risks facing York's historic centre. We asked how we can work strategically and locally to create a more resilient city by adapting, preparing and conserving to better protect York's vulnerable heritage.

The conference focused on sharing ideas, planning and experience around ways for the civic and research community to work together to create a more resilient city. It asked: can we better equip the citizens of York with information and appropriate expectations about likely flooding events and other disasters in the future? Are there low-cost preventative and practical measures we can explore to protect the city's heritage and its communities? The day ended with a roundtable discussion with speakers to identify actions and next steps.

3.1 The Conference: Speakers



Prof. DINA D'AYALA
Professor of Structural Engineering,
Dept. of Civil, Environmental & Geomatic Engineering
University College London



Dr. DAVID FRASER
Chief Executive
York Civic Trust



TIM GODSON
Team Leader, Resilience & Emergencies
Division (Northern)
Dept. for Communities & Local Government



Dr. NEIL MACDONALD
Senior Lecturer in Physical Geography,
Dept. of Geography and Planning
University of Liverpool



IAN PANTER
Head of Conservation
York Archaeological Trust



NEIL REDFERN
Principal Inspector of Ancient Monuments & Development
Management Team Manager (Yorkshire)
Historic England



HEATHER SHEPHERD
Community Support & Flood
Recovery Specialist Member,
The National Flood Forum



ALESSANDRA SPREGA
WRoCAH PhD student,
University of York



RICHARD STORAH
Director and Architect
Storah Architecture



CAPT. STEPHEN UPRIGHT, R.N.
Clerk to The Company of Merchant
Adventurers of the City of York



STEVE WRAGG
Flood Risk & Asset Manager
City of York Council



Dr. LORRAINE YOUNDS
Research and Innovation Manager: Urban Living
University of York

Figure 16: Images from the report of the Resilient York Project ©images by Marks 2017

CASE STUDY : RED TOWER

Interviews



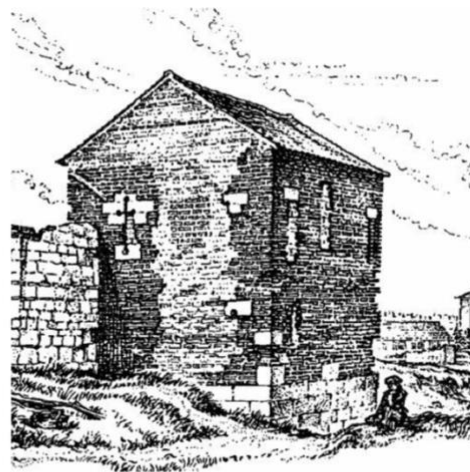
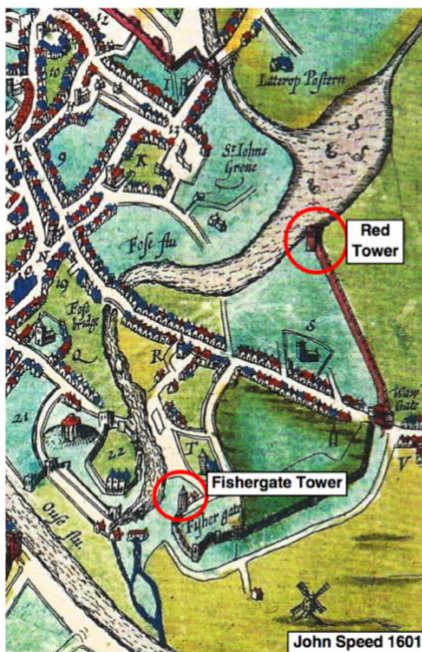
Barry Beckwith
Chair/director Red Tower York CIC



Geoffrey Holland
HOLLAND BROWN ARCHITECTS
ARCHITECTURE • CREATIVE
CONSERVATION • HERITAGE



Figure 17: Citizen led activity Red Tower Project interview participants



Historic research
Primary and secondary sources of information.

Figure 18: Historic images of the Red Tower ©redtoweryork.org.uk/red-tower-history/



Figure 19: Visit to the building site on the 17-01-2018 ©images by the author



Figure 20: Visit to the building site on the 06-02-2018. New waterproof kitchen installation ©images by the author

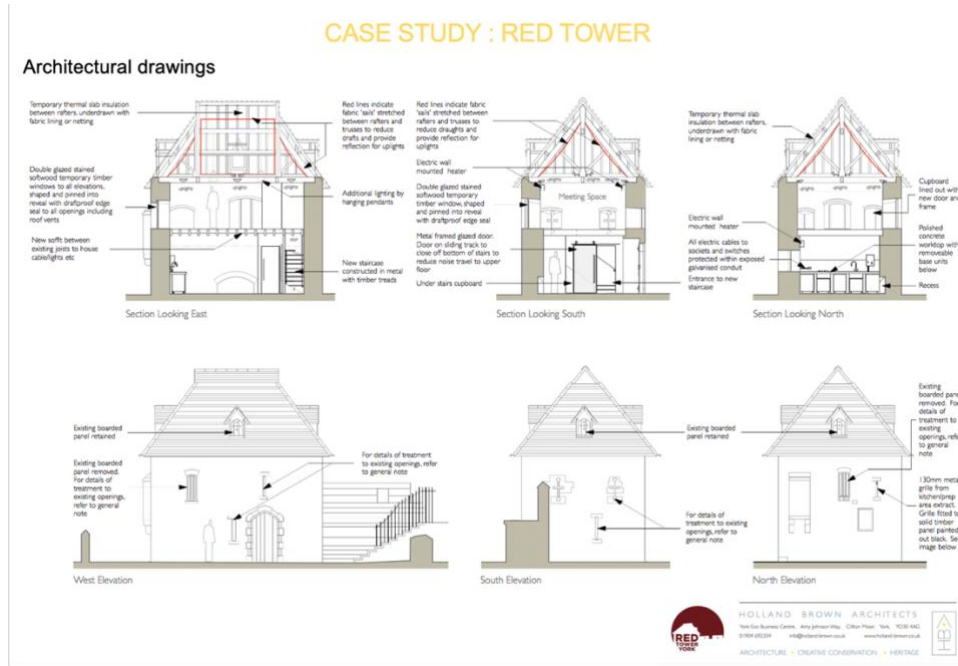


Figure 21: Resilient project ©Holland and Brown Architects



Figure 22: Focus group York 2018

7.2 Photo research diary Amatrice case study



Figure 23: (Right) Geographic location of Amatrice (Left) The main street "Il Corso" after the 2016 earthquake



Figure 24: Aerial image of the Amatrice historic centre before the 2016 earthquake © Esri Arcgis online



Figure 25: Historic picture of “Il Corso” of Amatrice © Mario Ciaralli



Figure 26: First reconnaissance visit to Amatrice on December 2018. “Il Corso” of Amatrice © image by the author



Figure 27: First reconnaissance visit to Amatrice on December 2018. The demolition in the historic centre © image by the author

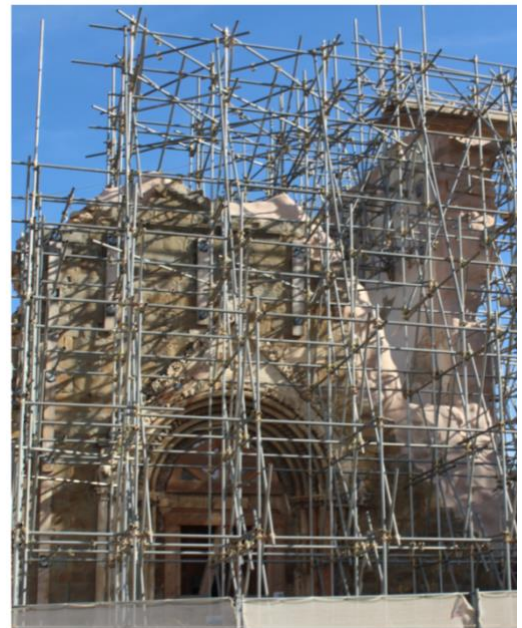


Figure 28: First reconnaissance visit to Amatrice on December 2018. (Left) St. Francesco church (Right) St. Agostino church © image by the author



Figure 29: First reconnaissance visit to Amatrice on December 2018. Civic Museum “Cola Filotesio” © image by the author



Figure 30: Example of damage caused by the insertion of a concrete ring beam on the roof level (Configno) © Tiziano Palopoli



Figure 31: S.A.E. (Soluzioni abitative in emergenza - Emergency Housing solutions)" © image by the author



Figure 32: The new commercial area built after the 2016 earthquake © image by the author



Figure 33: Focus group Amatrice July 2019 © image by the author

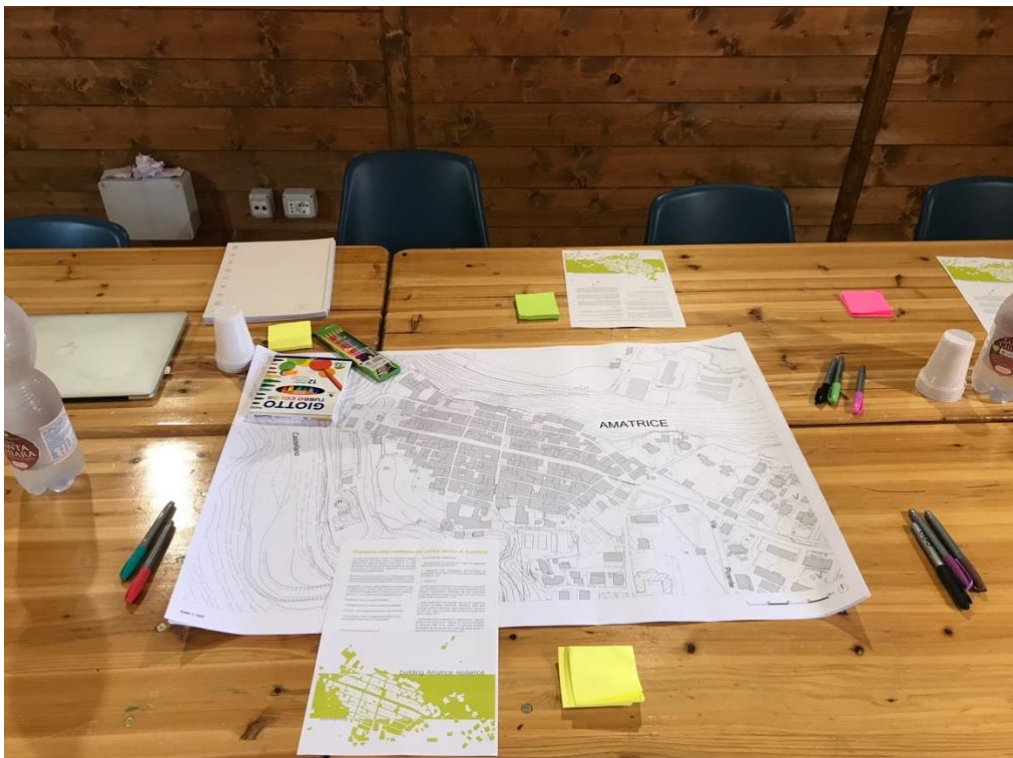


Figure 34: Mapping activity Amatrice July 2019 © image by the author



Figure 36: Mario Ciaralli interview held in his antique store in Rome historic centre in on April 2019

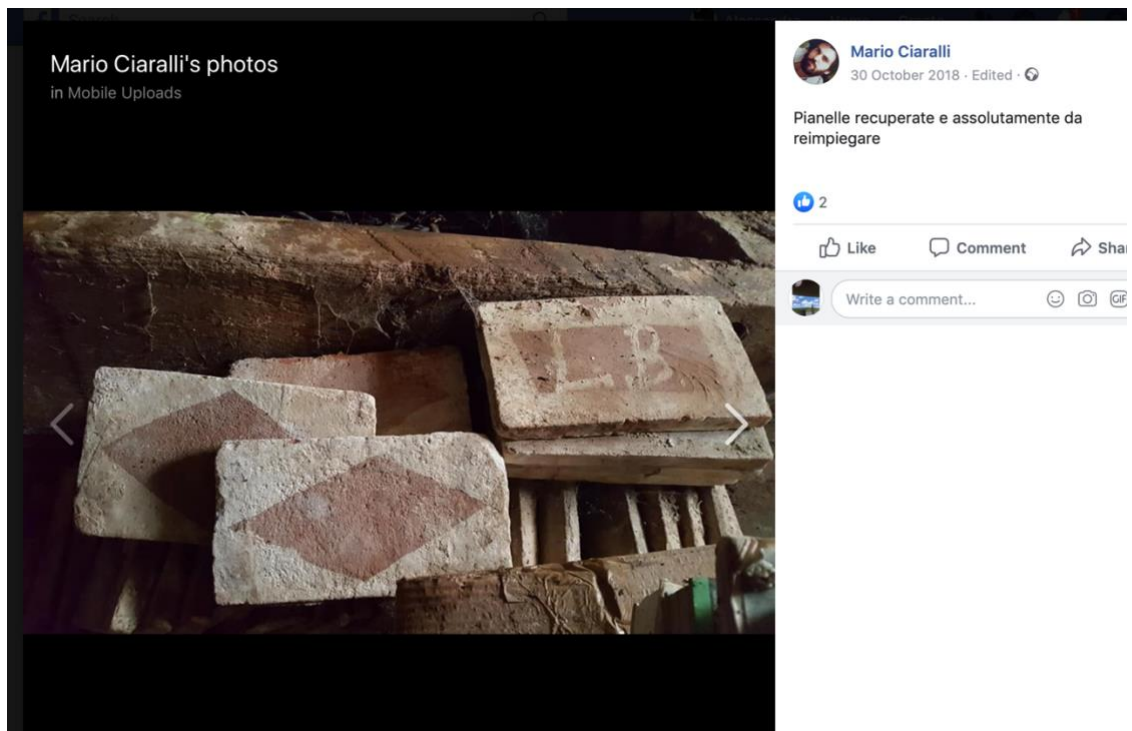


Figure 37: Mario Ciaralli's Facebook images to raise awareness about Amatrice cultural heritage

8 Appendix

8.1 Press releases of the 'Comitato 3,36'

AMATRICE – Crollo beni storici, artistici e culturali: di chi sono le responsabilità?

Posted 14 Febbraio 2017 | By admin | Under Comunicati

Crollo delle chiese e perdita dei beni storici, artistici e culturali: di chi sono le responsabilità?

Scossa dopo scossa abbiamo assistito al progressivo annientamento di chiese, opere d'arte, elementi storici di pregio e di decoro. L'identità di una popolazione affonda le sue radici anche e soprattutto nel patrimonio storico, artistico e culturale costruito nel corso dei secoli. Eppure, nonostante siano passati oltre cinque mesi, le chiese continuano a crollare e i beni, più volte segnalati dai cittadini, restano esposti alle intemperie con il rischio di perderli per sempre.

Come è stato possibile tutto questo?

È quello che il Comitato Civico 3e36 domanda alle Istituzioni.

Per andare a fondo in questa vicenda occorre però ricostruire gli accadimenti per meglio comprendere se vi siano state delle mancanze da parte degli Enti preposti alla tutela dei beni di valore storico, artistico e culturale.

La prima grande mancanza è da riscontrare nel primo decreto legge, il n.189 del 17 ottobre 2016.

Non furono previsti interventi a carattere di urgenza per la messa in sicurezza dei beni a rischio crollo. La maggior parte dei provvedimenti presi furono a posteriori, cioè dedicati al recupero dei beni ormai compromessi e allo stoccaggio presso i locali dell'Unità operativa depositi temporanei. Per questo motivo molte strutture rimaste ancora in piedi seppur danneggiate, finirono con lo sbriciolarsi a seguito delle successive scosse di fine ottobre 2016.

In seguito all'evento sismico del 30 ottobre, dopo pressanti richieste per lo più da parte dei cittadini, fu emanato un nuovo decreto-legge, il n. 205 dell'11 novembre 2016.

L'articolo 6 del decreto 205 prevedeva **Interventi immediati sul patrimonio culturale**. Il decreto-legge conteneva alcune disposizioni che consentivano di avviare tempestivamente interventi di tutela e ricostruzione del patrimonio storico e artistico danneggiato dagli eventi sismici. In particolare, in merito alla progettazione di interventi per la messa in sicurezza di beni culturali e immobili, era previsto che le pubbliche amministrazioni competenti potessero procedere con affidamento diretto delle progettazioni a professionisti qualificati, senza ulteriore formalità, per importi inferiori a 40mila Euro. Inoltre, per evitare ulteriori danni ai beni culturali e paesaggistici presenti nei propri territori, i Comuni interessati erano liberi di effettuare in proprio gli interventi indispensabili, compresi quelli di messa in sicurezza degli edifici, dandone immediata comunicazione al Ministero dei beni e delle attività culturali e del turismo.

8.2 Open letter to the MiBACT from the 'Comitato 3,36'



Lettera aperta al Ministro dei Beni e delle Attività Culturali

Posted [20 gennaio 2017](#) | By [admin](#) | Under [Comunicati](#)

Lettera aperta al Ministro dei Beni e delle Attività Culturali

Onorevole Ministro,

con la presente siamo a rappresentarle la triste condizione che aleggia sul patrimonio storico- artistico della conca Amatriciana, ad ormai cinque mesi dal primo evento sismico che ha sconvolto il nostro territorio; inizieremo da un piccolo aneddoto.

Circa tre settimane dopo il sisma del 24 agosto un uomo straordinario, Ignazio, di professione pompiere, durante una complessa opera-

Ultime notizie

Convocazione dell'assemblea degli aderenti – DOMENICA 19 LUGLIO 16 luglio 2020

Note sulla ricostruzione privata all'attenzione del commissario straordinario Legnini 7 luglio 2020

Le novità per la ricostruzione privata introdotte con l'Ordinanza 100 1 giugno 2020

Un contributo del Comitato 3e36 all'emergenza COVID-19 25 aprile 2020

Ricostruzione del cimitero di Amatrice 19 febbraio 2020

zione di recupero lungo il corso di Amatrice, all'interno di un locale letteralmente "tumolato" sotto due piani di macerie, si è tolto i guanti per raccogliere un libro dell'Ottocento: non voleva sporcarlo.

Vede Signor Ministro, Ignazio è l'emblema della nutrita schiera di uomini, professionisti o semplici appassionati, che hanno dentro di sé quella generosa incoscienza che ha permesso al nostro immenso patrimonio storico-artistico di giungere ai giorni nostri, travalicando i secoli e le calamità. Eppure, il nobile spirito di questi uomini resta frustrato quando cerca il conforto dei soggetti preposti alla salvaguardia ed alla conservazione di questo patrimonio: funzionari e addetti del Suo Ministero.

Senza generalizzare, e fatte salve tutte le eccezioni, non può più essere taciuto né accettato l'atteggiamento distratto, attendista e strumentalmente prudente di costoro, di fronte alle accorate richieste di intervento che vengono dalle Istituzioni locali e dai cittadini tutti. Forse non tutti lo sanno, ma Amatrice è la città delle cento chiese, del Principe Orsini e della Famiglia Vitelli, di Cola Filotesio e Dionisio Cappelli, dei mille oggetti d'arte minore pubblici e privati; per questo Amatrice meriterebbe più rispetto: per la tragedia che ha subito e, soprattutto, per i suoi quasi mille anni di storia.

Della spocchia, delle risposte evasive e scontate, dei "non so" e dei "non si può" Amatrice non ha bisogno. Lo stesso dicasi di alcuni personaggi, impettiti ed immobili come il galletto che segna il Nord sopra ai campanili, devoti più alla sacralità della procedura che alla sopravvivenza delle opere d'arte.

I Beni da salvare sono centinaia e distribuiti su un territorio tanto vasto quanto fragile: dipinti, statue, oggetti sacri, reliquie, campane, affreschi ed interi edifici, oltre alla terra ora temono il cielo: la pioggia, la neve, il vento ed il gelo. Per compiere un'opera di salvaguardia tanto importante quanto maestosa, c'è bisogno di passione, abnegazione e spirito di sacrificio; c'è bisogno di persone sensibili che di fronte alla bellezza, spogliata della sua magnificenza, sappiano ancora abbandonarsi ad un sano stupore, anziché ad un inutile sguardo di compassione.

C'è bisogno di tanti Ignazio, pronti a tirarsi su le maniche ed agire. Subito! Lasciate spazio ai tanti volenterosi che hanno sinceramente a cuore le sorti del patrimonio storico-artistico della conca Amatriciana;

avvaletevi della loro collaborazione, "approfittatene". Affiancate loro personale qualificato e dinamico: resterete sorpresi della partecipazione e soddisfatti dei risultati. Sappia che qualsiasi iniziativa Ella intenda adottare per agevolare una celere messa in sicurezza delle opere d'arte e dei monumenti ancora esposti a gravi rischi, troverà convinta collaborazione. Sappia però che non sarà più accettata alcuna forma di inerzia: non resteremo a guardare mentre i nostri simboli cadono uno ad uno.

Certi del Suo tempestivo interessamento Le inviamo distinti saluti.

Amatrice, 20/01/2017

Comitato Civico 3 e 36

8.3 Cover of the book published and created by the 'Comitato 3,36'

