ASSESSING THE RELATIONSHIP BETWEEN COMMUNITY INCLUSION AND SPACE THROUGH VALLETTA 2018 CULTURAL INFRASTRUCTURAL PROJECTS

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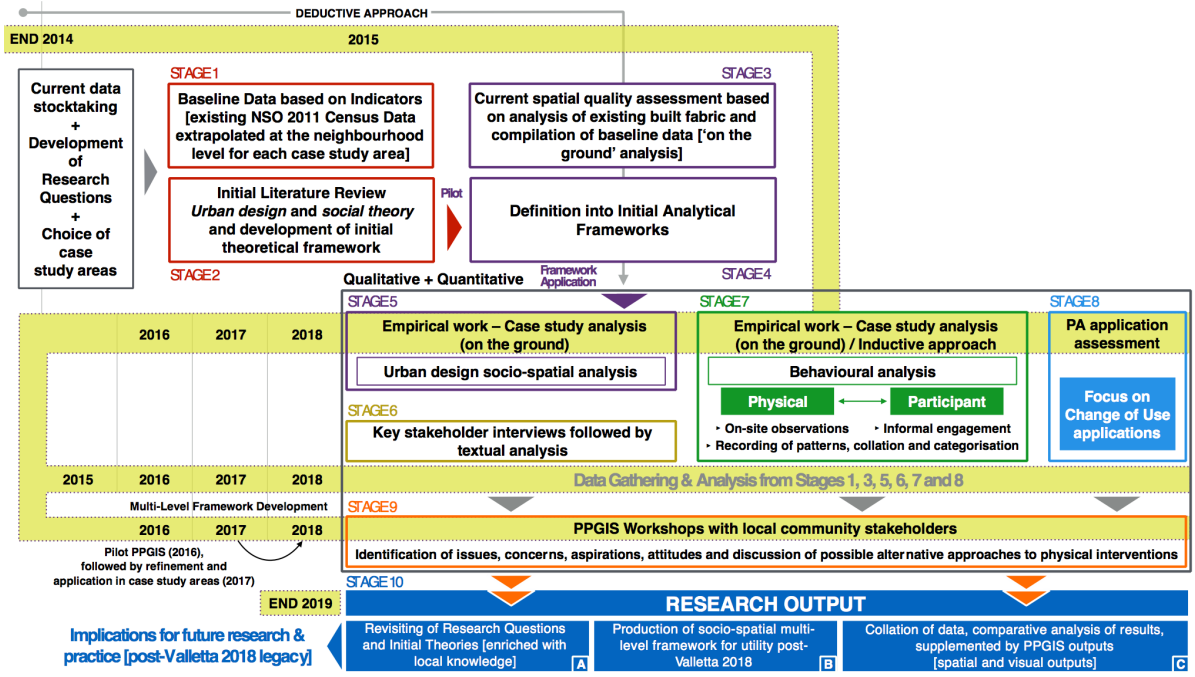
INTRODUCTION

The study seeks to understand the spatial (physical) and social (behavioural) impact of cultural infrastructure, primarily architectural and urban design interventions, in terms of broader culture-led urban regeneration objectives for the various community and stakeholder groups over the research period. As discussed over the past years, the interface between socio-cultural considerations and physical outcome comprises the social dimension of urban design, which is the research focus.

METHODOLOGY

This empirical work carried out as part of the afore-mentioned research stages (Stages 6, 8 and 9) are part of the mixed methods approach adopted within this study, composed of both deductive and inductive avenues and qualitative and quantitative methods in support of each other (Figure 1).

Figure 1: Textual analysis of stakeholder semi-structured interviews



The following five key stakeholder interviews were held throughout 2016:

(A) Perit Joseph Scalpello and Perit Ivan Fava for the Planning Authority

(B) Mr Caldon Mercieca for the Biċċerija Design Cluster

(C) Mr Sandro Debono for MUŻA

(D) Mr Antoine Portelli on behalf of Arkadia for Is-Suq tal-Belt (Covered Market)

(E) Dr Giuseppe Schembri Bonaci as Artistic Director of Strait Street

The interviews were conducted in both Maltese and English, following an identification of themes as part of a 'mapping controversies' exercise carried out for Valletta within the research group. The interviews were transcribed, all questions were stripped away from the analysis together with any additional comments made by the interviewer. Using Voyant-tools (Sinclair and Rockwell, 2016), an online text analysis engine, the interviews were analysed both individually and as a group. Through repeated cycles of analysis and stages of refinement, a "stopword" list of frequent or distinctive words to be omitted from analysis, because of their failure to shed insight on the content of the text, was compiled. This list grew to include 320 words. When a given word appeared in both Maltese and in English, the usage was unified by replacing all mentions with the most commonly-used term. For each interview a wordcloud of the most frequently used meaningful terms was generated. The most distinctive terms in each interview (by TF-IDF score) was identified, in order to determine the specificity of such terms. tf–idf stands for 'term frequency–inverse document frequency' and it gauges the importance of a specific term within a body if text (often referred to as the corpus). As the instances of such term increase (term frequency tf), so does the tf-idf value however an adjustment is carried out through the computation of the word's frequency in such corpus (inverse document frequency idf), so as to make an allowance/correction for the general presence of some words over others (Salton and Buckley, 1988). This is because:

> [...] term frequency factors alone cannot ensure acceptable retrieval performance. Specifically, when the high frequency terms are not concentrated in a few particular documents, but instead are prevalent in the whole collection, all documents tend to be retrieved, and this affects the search precision. Hence a new collection-dependent factor must be introduced that favors terms concentrated in a few documents of a collection. The well-known inverse document frequency (idf) (or inverse collection frequency) factor per- forms this function. The idf factor varies inversely with the number of documents n to which a term is assigned in a collection of N documents. A typical idf factor may be computed as log N/n [38].
> (Salton and Buckley, p516)

This data may be even more useful as it is not only dependent on term frequency within each interview (on its own merits), which allows less for comparison among interviews (due to interview length, for instance).

Update to analysis of development planning applications in terms of change of use

Using the same methodology as the previous year, development planning applications relating to change of use developments were assessed in order to have a complete picture of the state of affairs up until the end of 2017.

PPGIS workshop: Participatory Mapping Walkabout

A Participatory Mapping Walkabout was held during the annual Valletta 2018 conference, this year entitled 'Liveable Cities Liveable Spaces' and held from 22nd November to 24th November 2017. The Mapping for Change platform which had been used in the PPGIS workshop held in November 2016 was used once again, in order to continue building upon the existing database of information. The walkabout was organised jointly by the Valletta 2018 Foundation, studjurban and Mapping for Change; with the collaboration of Perit Wendy Jo Mifsud coordinating the participatory mapping initiative in liaison with Louise Francis, Managing Director of Mapping for Change.

Having taken place over two days, the initiative started with an introductory speech given by Louise Francis. This focused on the remit of Mapping for Change and its use worldwide; with an emphasis on the importance of open-ended participatory data gathering. The objectives of the research project were then explained by Dr Antoine Zammit, who introduced the four sites of cultural infrastructure that were to be mapped on the following day. The juxtaposition of authoritative and lay views on the subject of quality in the built environment was highlighted. The walkabout around the four sites took place over the course of two hours on the following day, with good weather aiding the organisers to proceed as had been planned. Each participant was presented with a mapping pack consisting of a colour-coded folder with a paper map within it; this showing both the site to be mapped, spaces within which to jot down comments and details of how to use the online platform. The session started with a short briefing on the categories which were to be mapped and the process to be followed. Once the participants were subdivided into groups, each headed by two coordinators and supported by a Valletta 2018 volunteer, these proceeded to walk to their mapping site. Around sixty participants joined the walkabout, ninety-three having registered prior to the event.

Once on site, participants were encouraged to use the online platform to map their contributions, though those who felt they could contribute more effectively by using the paper map were free to do so. Issues were reported by the coordinators with the availability of Internet, despite having purpose-bought 4G provision for the event. To this end, personal data was used by some; others preferred resorting to the paper map provided. It was noted that paper mapping was the preferred option throughout the walkabout, though contributions gathered through the online platform made up around 30% of the total number of contributions during the walkabout. Most participants who opted to use the online platform also seem to have used the paper mapping method; thereby combining both the physical and the digital participatory mapping methods. The participatory mapping session ran for around an hour and enabled the participants to engage both with the coordinators and fellow participants, as well as with members of the public in some cases.

FINDINGS

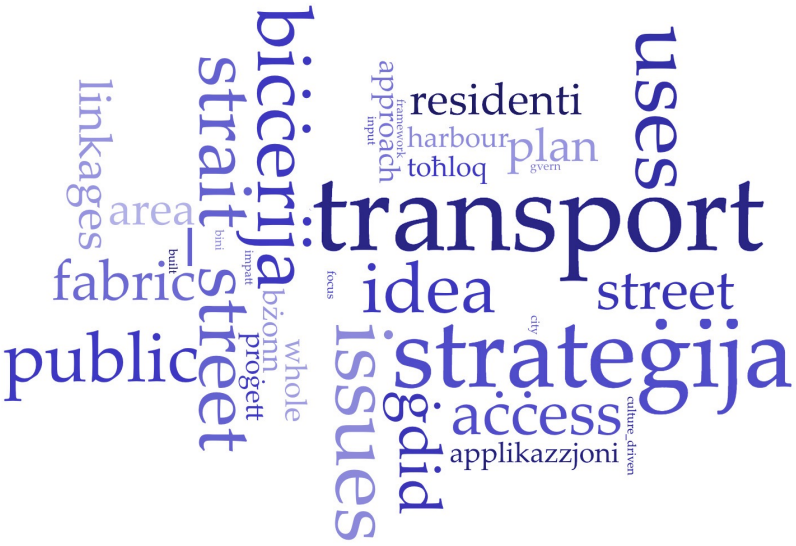
Textual analysis of stakeholder semi-structured interviews

Deliverable 1 - understanding term frequencies

Word cloud (voyant-tools documentation, Cirrus visualisation option): This diagram visualises the top-frequency words, with most frequently used words appearing largest.

Figure 2 (below): Individual wordclouds for each of the five key stakeholder interviews – Wordcloud A (Planning Authority), Wordcloud B (Biċċerija Design Cluster), Wordcloud C (MUŻA), Wordcloud D (Is-Suq tal-Belt) and Wordcloud E (Strait Street) *(Source: Author)Land use analysis*

Wordcloud A: Interview with Perit Joseph Scalpello and Perit Ivan Fava



Wordcloud B: Interview with Mr Caldon Mercieca

Wordcloud C: Interview with Mr Sandro Debono

Wordcloud D: Interview with Mr Antoine Portelli

Wordcloud E: Interview with Dr Giuseppe Schembri Bonaci

A number of key observations may be derived from the textual analysis on the basis of term frequency:

Interview A (Scalpello, Fava) is characterised by strategic planning terms, and there is a constant effort to look at the bigger picture, be it in terms of movement (linkages and transportation), the need for strategic/systems thinking, the role/influence of land use (and planning applications in this regard) and the involvement of residents (and regard to their needs).

In **interviews C** (Debono), **D** (Portelli), and **E** (Schembri Bonaci), the name of the project is the most frequently-used term ('MUŻA', 'Suq', and 'Strait Street', respectively). The main interest and focus of the three interviewees is on the project per se, its vision and objectives/deliverables. Arguably, this suggests a branding or marketing effort at work in the interview, whether conscious or not.

Certainly, Portelli's interview is all about branding and the business element of the project, given that Is-Suq tal-Belt is managed by a private company that was entrusted with the restoration and rehabilitation of the former market. There is little mention of 'people' (except in terms of potential consumers) or the local community or Valletta residents (except to define what he thinks that the 'Beltin' of the future may be).

Schembri Bonaci's interview remains focused around the nature of the street and the events being promoted therein and the high frequency mention of 'artistic director', Schembri Bonaci's role within this project.

Debono's interview does have a regard to people and the community – the term *'komunita'* is a moderately high frequency term, although its frequency is much less than the project-related terms.

Interview B (Mercieca) is a notable exception to the above. Here, the dominant words are *'komunità', 'nies', 'spazju',* and *'proġett',* with 'Biċċerija', 'cluster', and 'design' mentioned relatively little in comparison. This suggests a more bottom-up generative process, where the project's meaning emerges more from its underlying context, and less from its branding.

Figure 3: Most frequent words in the corpus (collated interviews *(Source: Author)*

Most **frequent words** in the corpus: proġett (66); nies (63); spazju (52); strait_street (46); komunità (44); muża (30); malta (28); residenti (26); suq (23); street (22); biċċerija (21); idea (21); pjazza (21); triq (21); art (20)

Distinctive words (compared to the rest of the corpus):

1. A- Scapello and Fava: strateġija (11), transport (16), uses (8), linkages (5), issues (8), biċċerija (8), whole (4), applikazzjoni (4), ġdid (6), aċċess (6), residential (3), requirements (3), pedestrian_flow (3), input (3), culture_driven (3).
2. B- Mercieca merged2: komunità (32), żona (17), aspett (11), neighbourhood (10), perspettiva (8), master_plan (8), biċċerija (13), riġenerazzjoni (7), workshop (6), swar (5), binja (5), soċjali (8), cluster (8), spazju (30), qtates (4).
3. C- Debono merged: mużew (17), muża (23), komunità (12), bitha (4), teatru_rjal (3), participatory (3), national (3), narrattiva (3), home (3), xogħlijiet (2), visuals (2), touch (2), esperjenza (2), support (2), sinerġija (2).
4. E- Schembri Bonaci: artistic_director (13), strait_street (37), piaf (7), laqgħat (6), karattru (9), orkestra (5), lava (5), implementation (5), events (5), direttur (8), strada_rjali (4), strada_mercanti (4), slabs (4), manuel (4), light (4).
5. D- Portelli merged: ikel (8), sular (7), part (6), stalls (4), food (4), expression_of_interest (4), maltin (7), basement (7), level (6), quick (3), preżenti (3), moderna (3), ispirazzjoni (3), għeruq (3), commitment (3).

We may furthermore visualise the "Corpus wordcloud" diagram (Figure 4). This enables us to convey (through text size) the relative frequency of the terms used in the corpus, and to convey (through a mixture of colours) that this collection includes words drawn from all interviews. Note that the colours not associated with the five colours are meant to denote overlaps.

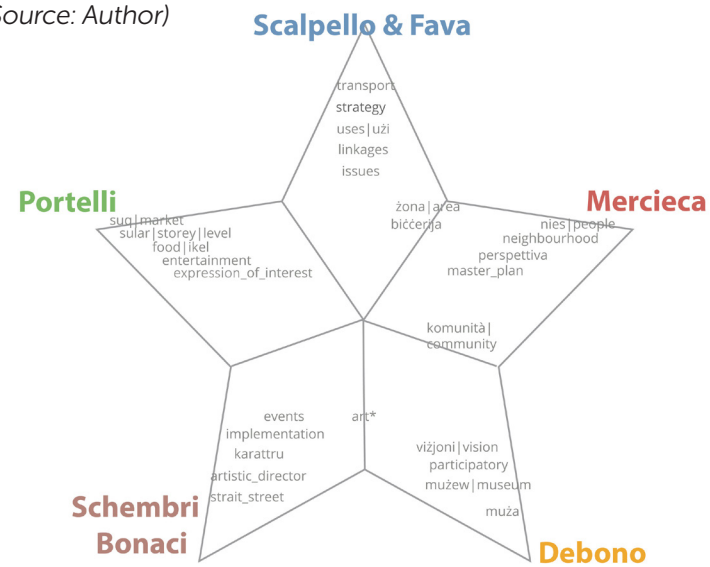
Wordcloud (Corpus): Collected interviews with Scalpello & Fava, Mercieca, Debono, Portelli and Schembri Bonaci

Figure 4: Corpus wordcloud diagram *(Source: Author)*

Deliverable 2 - understanding distinctiveness

The second deliverable was the production of a Distinctiveness Diagram (Figure 5) that identifies some of the most distinctive terms of each interview, while also showing terms that appear distinctive to pairs of interviews.

Figure 5: Distinctiveness diagram *(Source: Author)*



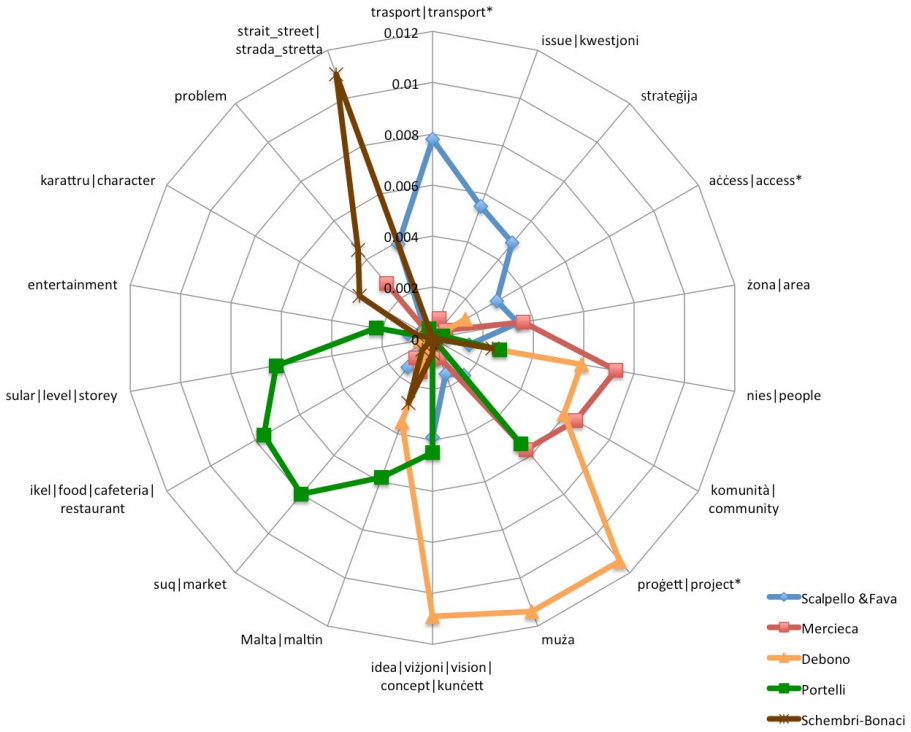
As a further development of the above, we subsequently sought to understand the relative frequency of the distinctive terms.

Deliverable 3 - understanding *relative frequency*

Relative Frequency: This radar diagram plots the relative frequency of some of the most distinctive terms of each interview, as well as some common shared terms. This data was collected with the help of Voyant-tools "Trends" tool. Each data point indicates the relative frequency of a given term in a document, per normalised count of 1 million terms. Figure 6 quantitatively reveals the degree of distinctiveness of some of the most distinctive terms associated with each interview. The distinctiveness diagram (Deliverable 2) is an abstraction based on the findings of this diagram. Note that an asterisk next to some terms represents a "wildcard character", i.e. can be replaced by any string of letters and are therefore grouped within the same term category. e.g. trasport|transport* refers to the set of all terms that begin with transport. Thus, transport* = {transport, transports, transportation, transported}. Also, the '|' symbol (called the "pipe" symbol) basically means "or". This is notation used by Voyant-tools text analysis engine.

The fourth and final deliverable involved a categorisation exercise wherein the main themes from each interview were extracted and analysed, in order to understand whether there were any overlaps or different directions in the agendas/motives of each of the key stakeholders.

Figure 6: Relative frequency diagram *(Source: Author)*



Deliverable 4 - categorising and extracting themes

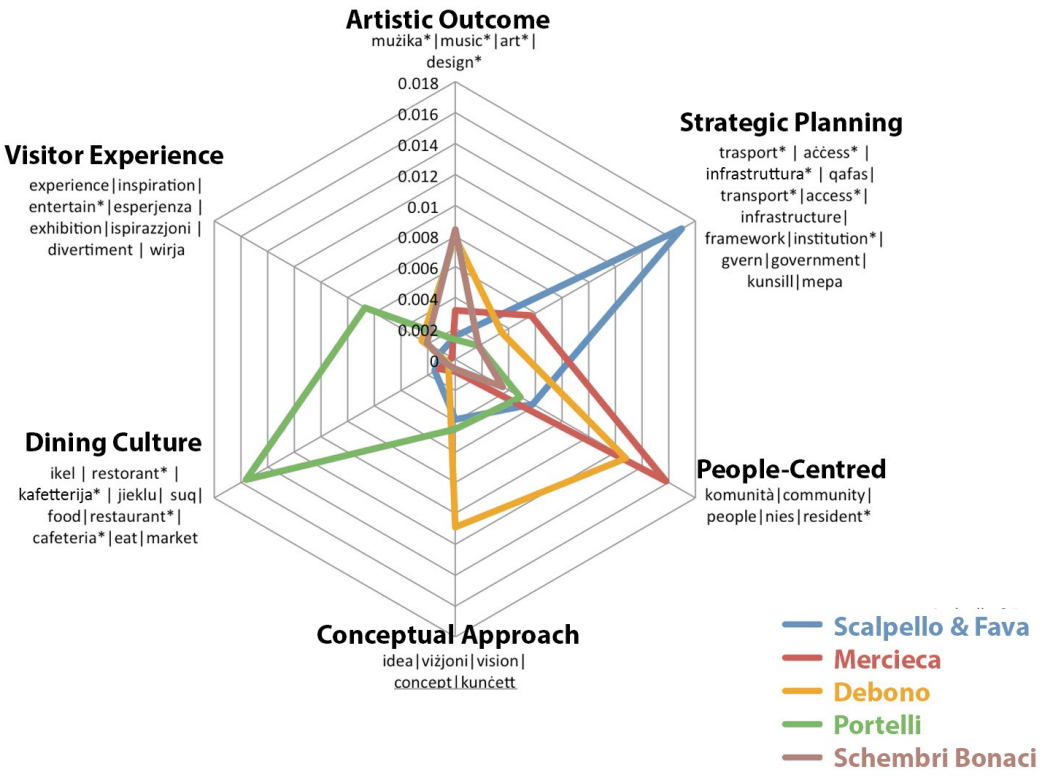
Themes: Categories of related terms were created, drawing from the list of most frequent or distinctive terms. This diagram shows the relative frequency with which each interview included terms from each thematic category, represented using a radar chart in order to understand where major influences/ interests lie and to further support the previous observations.

Comparing categories, as opposed to terms, further transcends the issues with individual counts (and its pitfalls, given particularly the fact that term frequency is also directly dependent on the length of an interview) and helps to frame the discussion within a more comprehensive platform and identify both any overlaps/parallels (if existing) among interviewees, and distinctive directions that they may take.

The following interpretation may be extracted from the above exercise:

- Scalpello and Fava's interview is the one which engages most with issues of strategic planning.
- Dining culture is almost exclusively discussed by Portelli.
- Both Mercieca's and Debono's interviews suggest a people-centred community perspective, while Portelli seems the most concerned with visitor experience.
- Schembri Bonaci and Debono reveal a shared interest in artistic outcomes. Debono's interview seems to occur on the plane of conceptual intention more than any other interview.

Figure 7: Categorisation and extraction of key themes from respondents *(Source: Author)*



Update to analysis of development planning applications in terms of change of use

The updated study reveals that the highest impact due to change of uses for four out of five categories throughout the period 1993 - 2017 is within the Biċċerija neighbourhood. Repeating the exercise specifically for the period 2012 - 2017 (the year Valletta was announced as 2018 European Capital of Culture) one notes that: (a) the degree of impact for most categories is higher and (b) for Aural, Olfactory and Litter impacts are highest in Strait Street (Figures 8, 9).

Figure 8: The impact of change of use within each neighbourhood area – 1993-2017 *(Source: Author)*

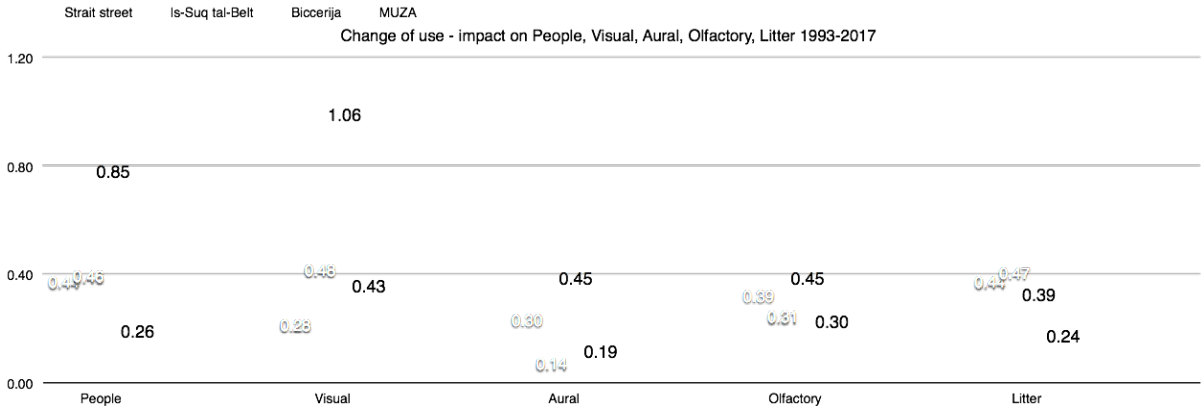
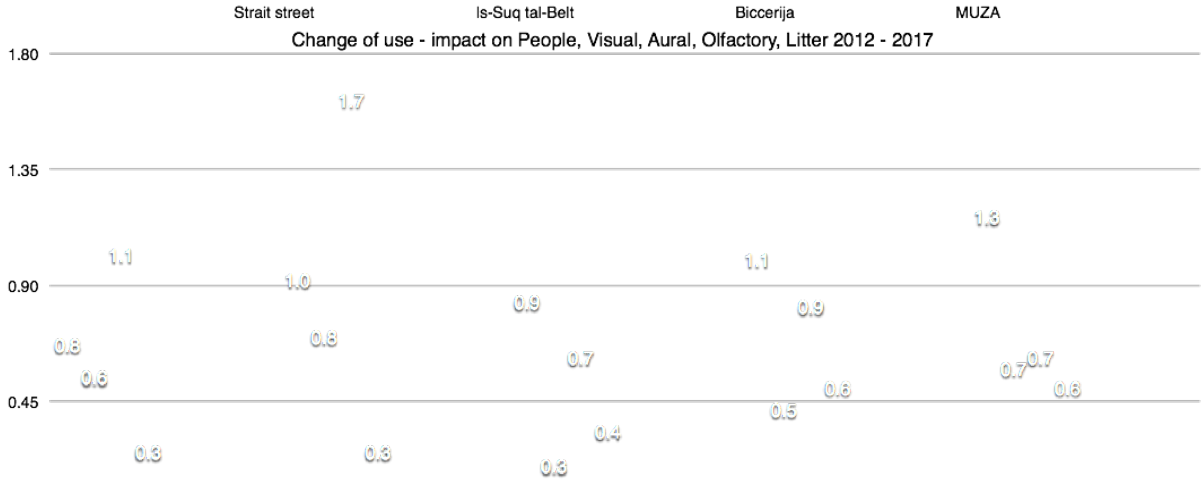
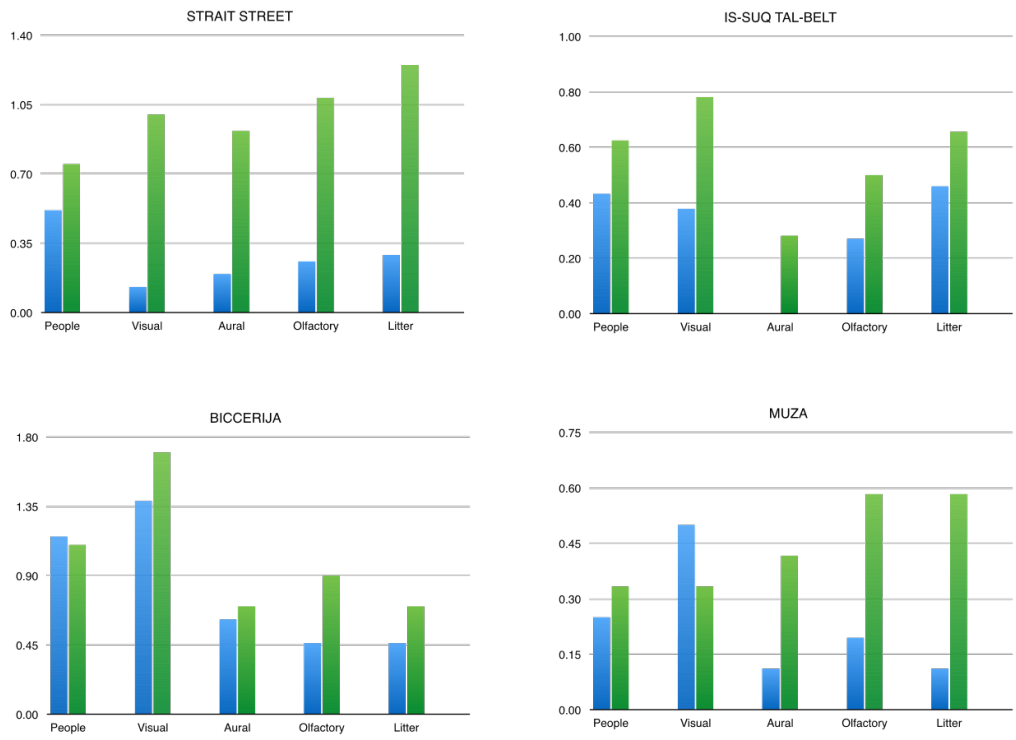


Figure 9: The impact of change of use within each neighbourhood area – 2012-2017 *(Source: Author)*



Breaking down the categories for each of the four areas under study reveals the following patterns (in blue for the period 1993-2011 and in green for the period 2012-2017).

Figure 10: The impact of change of use subdivided for each of the four areas – 1993-2017 *(Source: Author)*



Similar to the results in 2016, all the premises located in the Biċċerija neighbourhood that have applied for a change of use, post-2012, are applying for change into a higher level of commercial use (Figure 11). In contrast, within the neighbourhoods surrounding MUŻA and Is-Suq tal-Belt, change of use here is either not of a commercial nature or it remains within the same level of commercial use.

Figure 11: Comparing degree of commercial change of use within each neighbourhood area *(Source: Author)*

PPGIS workshop: Participatory Mapping Walkabout

Following the conclusion of the on-site part of the initiative, the groups gathered at the conference venue to discuss the outcomes of the walkabout. The discussion ranged from the urban design issues observed at the four sites of cultural infrastructure to observations on the participatory mapping method and the use of the online platform. It was observed that the key observations emanating from this discussion contained strong parallels with the Design4DCity themes that relate to the city's liveability, in terms of accessibility, land-use change controversies and space appropriation, as follows:

1. **Accessibility controversies** – pedestrian-vehicle conflicts; parking; Access for All; paving; vehicular routes etc.
2. **Land-use change controversies** – resident-developer conflicts; nuisance caused by construction; noise; dust etc.
3. **Space appropriation controversies** – public-private space conflicts; public space development; vandalism; maintenance

Lessons learnt from the walkabout are the importance of flexibility and the requirement for alternative options during the organisation of such an event. The preparation that took place in case of bad weather was a safeguard that was not ultimately made use of; but the provision of paper maps in case of lack of adequate 4G provision proved essential to a good proportion of the data gathered on the day. In addition, some of the registered participants failed to show up whilst other joined after the group lists had been published. Having a flexible approach to group management allowed the walkabout to take place regardless and timeframes were kept to; ultimately contributing to the success of the initiative.

Although the data still needs to be mapped onto the digital platform, following which it shall be analysed in depth, the PPGIS has allowed this research to include a bottom-up approach to complement the top-down data available to date.

CONCLUSIONS & WAY FORWARD

The following observations are provided as conclusions to the individual analyses:

- Textual analysis of Stakeholder semi-structured interviews: Clearly, the agendas of the individual key stakeholders is very diverse. As expected, the PA respondents are more concerned with strategic planning issues, with constant references to more comprehensive issues characterising their interview. More interestingly, there is a sharp contrast in the approach to the four individual sites – at the extreme ends, a community-driven and community-focused approach in the case of the Biċċerija project to a market-led and thematic-based approach in the case of Is-Suq tal-Belt. In between, the MUŻA project is also partly community-focused, although on an equal footing with the artistic credentials of the project, while the Strait Street project is driven mostly by artistic outcome and individual achievement.
- Analysis of development planning applications (update): Most trends observed in 2016 remain valid, albeit with a few differences namely that from 1993-2017 data the greatest impact due to litter can be seen to be within Strait Street. The scale of impact in the 2012-2017 period is more significant than that for the 1993-2011 period in all categories and for all four sites. Again, all change of use applications in the Biċċerija area are for a higher commercial order, similar to the results achieved in 2016.
- PPGIS workshop – Participatory Mapping Walkabout: While the actual data will be analysed in due course, it is important to note that as a methodology, there are still limitations with the digital approach to mapping and invariably the majority of participants still prefer the more personalised approach that is possible with physical mapping. Important controversies with regard to accessibility, land-use change and space appropriation are evident from a preliminary discussion held with participants post-walkabout.

The next steps for this research in 2018 are to be consolidated into the following tasks:

- Stage 5 (urban design socio-spatial analysis) and Stage 7 (behavioural analysis) shall be repeated in order to be able to gauge change that has occurred within the four case study areas over the past years. The data shall be compared to that achieved in 2015/2016 in order to be able to undertake a comparative analysis of the different sets of data.
- Stage 8 (assessment of change of use applications) shall resume in order to gauge whether the trends observed to date repeat themselves in 2018 or otherwise.
- Data from the PPGIS workshop carried out in 2017 shall be analysed and categorised in order to refine the socio-spatial framework that shall be developed. Both spatial and visual outputs (points of intensity/overlap of different themes) are envisaged.
- Further convergence of the results obtained from the various stages to be able to understand the socio-spatial implications on the four neighbourhoods in question.

Enriched by the results from the PPGIS, we shall be able to have an informed outlook as to the implications of change due to the cultural infrastructure and the social/attitudinal and behavioural changes (vis-à-vis the different stakeholders) that are resulting therefrom, by having the direct involvement of the local community and an understanding of their needs, concerns and aspirations. This will provide the prelude for the repetition of the physical and behavioural analyses that will occur once again in 2018, which will subsequently enable us to monitor the degree of change that has occurred over the research period, leading to a potential multi-level framework and strategy to be defined within a post-2018 legacy, as illustrated in the Research Output in Figure 1.

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CONCLUDING REMARKS

Amongst the many changes brought about by the European Capital of Culture title, the changes in the city's urban fabric are arguably the most visible and wide-ranging. Throughout the past years, as the ECoC title has gradually approached, much of the city's face has undergone significant transformation, with many public and publicly-accessible spaces undergoing renovation or restoration. Some of these changes, and their collateral effects, are outlined in the first study presented in this report, where data related to changes in the urban fabric are recorded.

This study focuses on the four flagship infrastructural projects spearheaded by the Valletta 2018 Foundation. The analysis of these sites presents a snapshot of the changing face of the city, with all four corners of Valletta undergoing different types of development. Each of these projects presents unique opportunities and challenges, both for people who interact with the site on an intermittent basis and, most pertinently, for the local communities who live and work within the vicinity. This research allows for a greater understanding of how these opportunities can be exploited and challenges met.

These changes to the physical fabric of the city undoubtedly also bring about significant changes to local communities and their way of life. This impact of this change on local communities is undoubtedly of primary concern for the legacy of Valletta 2018. The studies presented within this report share this view and seek to understand these often intangible impacts through a series of qualitative interventions with different communities that reside in, or interact with, Valletta.

The engagement of local communities in the Valletta 2018 project extends beyond the confines of these four infrastructural projects, to include their participation in Valletta 2018-related activities and their perspectives on the general changes taking place within the city. To this end, the accessibility of the Valletta 2018 Cultural Programme and the Foundation's approach to community inclusion is of primary interest. This research finds that there is a prevalently ambivalent attitude towards the rapid social change being undergone in Valletta, with concern for the survival of Valletta's local communities existing alongside excitement for the city's social, cultural and economic regeneration.