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The Digital Cultural Atlas Project:
Design Research and Cultural Narratives.
An Experiential Approach for Design Education.

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Abstract
This paper outlines an approach developed for teaching research methods in a graphic design program, working in an interdisciplinary context with cultural researchers. Initially, the Digital Cultural Atlas (DCA) is introduced, as a ‘work-in-progress’ web site, which locates a diversity of geographic and place-based cultural resources across Greater Western Sydney. The initial information architecture consists of ‘bird’s eye view’ cartographic maps and cultural project resources. Through a teaching project in design research, students consider ways in which experiential ‘on the ground’ visual stories can be included.

Initial student research identifies a diversity of observed cultural community contexts and situations. This is followed by a second smaller scale study of fewer sites, using an understanding of participatory design research. In this stage, each student researches an individual community context using two ‘voices’ of the self - as participant, and as observer. These engagements with the self as ‘actor’ are recorded in a journal format across a specific time period, with reference to reflections prior to, during, and after ‘action’. These provide the basis for the new visual stories in the DCA.

This paper describes and critiques this approach to teaching design research in visual communication, based on the DCA. In so doing, it links design research with human experiences of community and culture to engage with wider debates about the design of digital mapping spaces as information systems. The paper concludes with some reflections about the project’s possible future as an ongoing participatory community resource which engages with both geographic and experiential web content and form.

Keywords
Design Education; Participatory Design; Visual Narrative; Digital Mapping Systems; Community Identity; Designer As Actor
The utilization of this model in the teaching of design research highlights the value of explicitly engaging with the experiential knowledge and knowing of student designers as part of the research process. This is reflected through their initial observations in the first stage, resulting in meaningful and insightful experiential narratives about their community context in the second stage. These research findings then inform their third stage visual designs, as stories about human experience of culture and community.

The final visual narratives are intended to form a new layer the DCA site, reflecting experiential understandings of community contexts. As digital short story forms, they are part of an emerging engagement with what may be considered ‘emergent’ genres for visual design, where a resonance with community experiences is created.

This paper concludes by reflecting upon the potential for this kind of visual design genre as a rich space for engaging with community understandings and awareness. It also reflects upon possible future stakeholders, audiences and social networking communication contexts for sites which explore experiences of culture and community.

**Greater Western Sydney, Culture, Arts and the DCA**

The initial Digital Cultural Atlas project (DCA) was conceived and developed by a group of cultural researchers for the region of Greater Western Sydney, which is described and characterized as Sydney’s largest growth region for economic and population growth. This provides an imperative for urban planners to have a good understanding of the complex history and heritage, of the diverse communities within this large diverse urban region.

The region is often described as mainly ‘lower’ socio-economic, with a sprawling urban landscape made up of diverse cultural elements and an overall lack of consistent approaches to urban planning. As part of this trend, many cultural and arts groups have found roots outside traditional institutional structures, within community centres and organisations.

> One could argue that popular culture activities such as going to the football or the movies, skating, graffiti, bingo and local historical clubs are the predominant cultural activities in the western Sydney region. If the cultural life of western Sydney is to be the subject of research and analysis then the aforementioned cultural practices need to be discussed and contextualised in order to ensure the relevancy (sic) of any conclusions. (Barrett, 1991, p.23)

On this premise, the DCA project was established by cultural researchers as an attempt to draw together diverse resources about community activities, with the intention to locate and overlay these by using digital mapping conventions. The project was initially developed with the support and assistance of established community arts and media groups and agencies across the region. The premise suggests that such a mapping of these diverse cultural resources would provide a focus for further discussion amongst planners and researchers. This would enhance better understandings about the kinds of activities and resources which are both stable and emerging. In essence, the region and its diversity represents a slice of what is also occurring...
in many other global cities - a confluence of complexity linked to human experience and everyday living:

In Greater Western Sydney, we are seeing a convergence of the complex socio-cultural, economic and environmental challenges facing the world today, and without theoretical brooding or glossy fanfare, these issues are being worked out in the dynamics of everyday community life. This fertile mixture arouses debate that forges fresh new ways of thinking and adds to a bank of creative skills, knowledges and stories, offering new insights to address today’s problems. (Lally & Lee-Shoy. 2006, p.12)

The Availability of Public Participatory Geographic Systems (PPGIS)

The availability of open source internet mapping tools such as Google Earth, has resulted in an array of ‘mash-ups’ - cartographic points of view which can playfully and informatively observe specific locations. This has led to a general increase in popularity for mapping, with new techniques and opportunities to engage with meanings and concepts of local and global environments. Tulloch comments on this experience of participation as contributing to what he calls an emerging ‘new form of democratization’:

The combination of new Internet mapping tools and PPGIS is resulting in an array of creative, sophisticated, and time-intensive applications that are creating a newly empowered class of users. Even with the assistance of new tools and techniques, measurable improvements in outcomes can be elusive. In some cases, however, empowerment is derived from the perception of the participatory experience rather than the outcome. While this might not always be satisfying to Internet application developers anticipating dramatic and instantaneous changes, for countless individuals experiencing mapping at a new level these experiences will be exceptional. And, as an increased number of local citizens use these tools to look at patterns of growth, crime, commercial development and open space, the data and applications will result in a new form of democratization. (Tulloch, 2007)

Tulloch’s comments about these new digital tools highlight the significant opportunities they offer for interplay and engagement with existing map data. What is of interest for the DCA project is how cartographic perspectival mapping data tools - the ‘bird’s eye view’, can be used in parallel with ‘on the ground’ narratives about the experiences of place, to generate rich resonant spaces for dialogues about human experience and cultural contexts.

The DCA Information Architecture

As a ‘work-in-progress’ site, the DCA provides a space for experimentation and an opportunity to seek feedback from a range of urban planners, researchers, and community groups. As an exploratory site, it was initially established with the intention of highlighting the strategic value of cultural resources, as ongoing conversations about history, heritage, planning, and community identities. The existing information structure includes two main design approaches - the ‘bird’s eye view’ of cartographic traditions, alongside text-
based documents about community projects, and examples of visual media such as posters and short movies from community-based projects from arts organisations.

'Bird’s eye view' data
The ‘bird’s eye view’ consists of a set of layers which map both public and commercial arts and culture resources across the region. These are grouped in categories of ‘arts, economy, community, geography.’ Each category then opens up into sub-layers where detailed data is mapped across the region. These sub categories include libraries, councils, community centres, graphic design agencies, and media services. The mapping of these into the different layers provides a snapshot of the region in terms of a broad brush of arts and culture resources.

The following screen shot (Figure 1) shows the DCA home page interface which consists of the categories, and the location map which can be accessed for place and activity categories.
Figure 1: DCA Information categories

Figure 2 below shows the next layer of the interface with the use of coloured dots, in this case locating the categories of graphic design agencies (crimson dots) and libraries (purple dots), across the region mapped. Given the intention for this to be accessed by a wide range of potential users, the visual design approach used reflects the need for simplicity in both sets of visual icons and text, as well as general usability and functionality.

Figure 2: DCA dots layer showing graphic design agencies and libraries

Figure 3 below shows the third layer as a demographic interface, which uses shaded areas to depict countries of origin across the region. This figure shows the representation of population born in China in the region.
Overall, the 'birds eye view' type of information design in the existing DCA site tries to effectively represent a range of factual data about specific regional resources, providing insight into the cultural and social landscape of this developing region.

Community project resource documents as data

The second type of information consists of project resource documents and files. These are repositories of data about selected community projects - primary research materials about a range of projects which involve community groups working with established arts groups, which can be publicly accessed through the DCA.

Figure 4 show how these data types are assembled within the DCA community arts projects layer as a list of text files. This screen shot shows the co-location of various background files related to this particular project's establishment - including IP, project evaluation, photographic documentation and a music performance contract agreement. These are useful and valuable materials for researchers and community arts organisations seeking examples of creative activities in the region. Figure 5 shows an example of a poster from another project, as another kind of project resource.
Figure 4: Documents from the ‘Suburban Sista Sounds’ project: from ICE (Information and Cultural Exchange, Western Sydney)

Figure 5: Poster from the ‘Media Spaces and Places’ video project: from ICE (Information and Cultural Exchange, Western Sydney)
Designing Experiential Cultural Knowledge

The geographic and project resource data provide a rich descriptive and process-oriented resource about the region, and selected community arts activities. The design question being addressed at this point is how a greater understanding about the experiences of local communities can be integrated into the DCA site as cultural knowledge and knowing. This question leads into current debates about the importance of ‘culturisation’ in thinking about designing planning processes, which engage more effectively with understandings about sustainability and human connectedness.

These debates highlight the increasing need for more reflective dialogues about the inter-connections between cultural experience and community identities (Young, 2008). Young suggests that these inter-connections need to be more inherent within planning tools and processes, which are context-specific, and which acknowledge a plurality of understandings of culture.

As a planning tool, the DCA tries to bring together different forms of knowledge as data objects about Western Sydney. The location of geographic mapping data alongside other forms of knowledge highlights the context specificity of this project as a unique cultural communication context. Turnbull (1992), highlights the importance of sensitivity to context framing and inter-cultural dialogues for use of mapping data:

> the Western knowledge system has the appearance of being open to all, in that nothing is secret…in the Western tradition the way to imbue a claim with authority is to attempt to eradicate all signs of its local, contingent, social and individual production… In the light of these considerations we should perhaps recognize that all maps, and indeed all representations, can be related to experience and instead of rating them in terms of accuracy or scienticity we should consider only their ‘workability’ - how successful they are in achieving the aims for which they were drawn” (Turnbull in Wood, 1992, p. 40)

On this basis, it was proposed to develop a way to include the third type of data - as experiential knowledge/knowing in the form of visual narratives about community groups. This question formed the basis of the ensuing teaching project in design research.

The Design research project - methodology

First stage research

In the first stage of the design research project, students carried out regular quantitative and qualitative data collection activities. This took place as a research skills project in their third year of design studies. Each student was asked to select a familiar community group or site, which was available to them for regular access. The sites selected are diverse in activity and scale – they include sporting clubs, churches, cultural and social groups. The contexts for these are also varied - from informal gatherings of friends at local sporting clubs through to formalized activities at club venues.

The predominant approach to teaching and learning about research methods used in this initial stage is through observations and descriptions,
where activities and patterns of usage were documented using photographs, interviews, and regular site visits. The teaching and learning objectives were to develop skills and expertise in observational techniques, conducting interviews, and in evaluation and critique of visual data gathered.

What became evident from these initial findings was how cultural and social identities in each site could be understood as interconnections between small groups of participants as networks, linked around the structured activities which were being observed and documented. In this way, emerging cultural identities were seen to be based around a particular activity, with participants often playing social roles as actors, through regular patterns of activity.

Whilst they had an interest and often a participatory role in their community group, as a researcher, each student’s role in this first stage of their project is primarily as the detached observer. This enabled vivid and detailed descriptions about events, participants and activities as documentation of the community sites. In this initial stage of the project, it became evident that the large group of students had mixed levels of skills for web production. This made it difficult to consider a comprehensive publication of selected work in the DCA. What became evident was the need for an accessible web production model which could be provided as a kind of ‘template’ for web publishing.

As a result of this first stage of research, it became clear that there were design considerations related to both the generating of experiential content, as well as the accessible production of this content for publication into the DCA site for large numbers of future students. In order to further develop these design considerations, a second teaching project in design research was introduced.

**Second stage research**

In the second stage of the design research project, a smaller group of eight students work intensively over six weeks to further explore their community sites from the first stage. This is in their fourth year of design studies, as a professional ‘brief’ about the design of experiential content, and the design of a viable accessible web publishing model for the DCA. This design activity calls for a range of conversations with digital materials, as an interplay between reflecting and making - as an iterative process of design development in a digital context (Dearden, 2006).

A specific ‘auto-ethnographic’ research methodology is built into this second stage of the project. This involves each student in the group identifying and establishing two voices for their reflections through understanding their role as an actor - the ‘self’ as both observer and participant actors within their specific community site. This is captured in their reflective writing around three kinds of reflection – prior, during, and after ‘action’, with consideration given to the structure and layout of journals for effective capture of own design activity (Pedgley, 2007). Journal commentary forms the basis for emerging themes. As a result of this process, each student’s story line becomes dialogic - a conversation between their two voices of self, establishing a tension and a space for a rich engagement with community identity and dynamics of social networks.
Third stage research

In this final stage, each narrative weaves together these two different perspectives - as observer and as participant. Each story begins to take shape through constructions of text and image/video works conceived as storyboards and raw images and text resources. What becomes clear from reviewing these narrative materials is the need for a minimal aesthetic approach, with primary design considerations being to shape a simple layout style for input of text and images, as web-based information, which is readable and accessible. In addition, we are seeking a means by which large numbers of future students can input and design their own findings as entries, without needing to be specialist web designers.

What is needed is a kind of web ‘word-processing’ software application, for the integration of text, simple graphics, photographs and compressed digital video works. Having identified this situation, the entries were produced using the ‘iWeb’ software interface, which was selected as it provides a very simple and compatible interface for production. As a generic and readily available application, it meets the requirements for access by large numbers of future students, who are conversant with Mac system language and interface iconography. Whilst limiting in terms of aesthetics and functionality, it provides the kind of web word-processing model, which suits this particular context. As a template interface, it also provides access to a ‘blog’ function and to ‘Google Maps’, which fits with the DCA structure and intention.

As a result of selecting the ‘iWeb’ application template, the students’ visual stories were designed using a somewhat linear and limited set of aesthetic interface options. This was in order to meet the objectives of the initial design brief - to find a production model which could be easily accessible for large numbers of future students. This became a significant factor in the design of the aesthetic style in publishing the final stories. In effect, with a diminished aesthetic space to work with, the image and text content took on a greater prominence. In order to explain this, I briefly summarise the teaching approach used and then discuss in more detail the content and visual form for two of these stories.

The Community Sites

The small team of student researchers in this second stage work on their sites as individual researchers, with an ongoing collaborative dialogues taking place in class with the lecturer and the ‘client’ researchers from the DCA project. Their sites are unique and very different from each other. The range of community sites involved in this second stage includes the following local community contexts – ‘legal’ graffiti walls, a sailing club, a Buddhist temple, a university student residence complex, a drag racing complex, and a boxing training program at a local club. Initially, the first stage research is summarized, to clarify key findings about that particular community context.

As frames for this second stage research process, students are given three given criteria to start their reflecting – these are ‘sociability and communication, usage and access patterns and features, and shared experiences and interactions’. These are used as frames for reflection which takes place ‘before, during and after’ research observations. These reflections
are recorded in the two ‘voices’ of self - as participant and as observer. This provides a body of journal writings as a basis for the design of each project as an experiential narrative.

‘Girl Graffiti’ project

The ‘legal’ graffiti walls site is initially observed and documented by the student in the first stage as a public space provided by the local council for young graffiti painters. The initial focus is on finding out about the services, and the demographics of usage by local artists.

Depending on the skill level and complexity of the artwork, the time spent at the locations can very from 15 minutes to all day. A certain skill level is required to paint at these locations this includes knowledge of spray paint, can control (the skill of using the spray can effectively) and style (the art of creating a piece that looks good) generally pieces by well known writers that have good style, will stay on the wall longer before getting gone over as other writers will appreciate, and respect it more. There are a lot of rules and codes of conduct in the graffiti culture, although unofficial and undocumented, artists that break these codes are looked very poorly upon and will often suffer consequences related to their disrespect of these codes. Most young writers are taught this codes by older writers when they begin writing, as a rite of passage. (Stallard, 2008)

In the second stage of the research project, reflections from the student as ‘actor’ - as participant come into play, responding to the criterion features of ‘sociability and communication’:

I use the legal spaces when I want to do a nice relaxed piece, take my time and put effort into doing something good. I often go with boyfriend who paints also but we often invite other friends to come along and hang out. As we paint we often get approached by other writers who are in the area and stopped by to have a look at the wall, at some locations other writers paint the other side of the wall at the same time. We also frequently get approached by local residents who are interested to ask questions as they are curious about the practice of graffiti, they are generally positive about what we’re doing and state that they appreciate having the wall as nearby as they enjoy looking at all the different artworks. Often local kids sit and watch and ask to have a go of using spray cans. I value the legal walls as I can spend unlimited time there, although I understand that due to the legal nature, my piece often gets painted over quickly by others. That’s why photos are so important to graffiti artists. (Stallard, 2008)

As a result of her reflective process, this student’s research begins to focus on incidents and conversations where she experiences a sense of gender-based margins, despite her extensive experience and recognition as a graffiti artist. This results in a new direction, which is to focus her story around what she perceives as both implicit and explicit sexism in this community sub-culture. This new focus results in a series of web pages which detail aspects of a young female experience as graffiti artists. This is expressed as a personal narration (Figure 6), about the sub-culture and being female. It is also accompanied by
other pages, which are descriptive and informative about the craft and expertise required for this street art practice (Figure 7).

Fig. 6: ‘Who we are’ in ‘Girl Graffiti’, (Stallard, 2008)

Her story is structured using icons of spray can as graphic elements, with each a site for different knowledge from a female perspective about the practice. This is shown in the splash screen design (Figure 7) below.

![Image of Who we are](image-url)
Fig. 7: Splash screen for ‘Girl Graffiti’, (Stallard, 2008)

Her story explores graphic themes include issues of gender conflict, examples of female tags, examples of crew etiquette, and a photo gallery showing graffiti works. Her objective is to provide a resource and a working space for documenting graffiti works by young women artists (the ‘queens’), as shown in her draft storyboard design (Figure 8) below.

Fig 8: The ‘Queens’ page in ‘Girl Graffiti’, (Stallard, 2008)
Buddhist temple project

This student identifies his participant voice through a family connection to his local Buddhist temple, where his sister attends Chinese dancing lessons. Through his positional voice reflections, he shifts perspective to reflect upon his identity as a second-generation Chinese-Australian. His actor-as-observer voice initially describes the temple environment, and gives a detailed account of ritual activities:

The Temple itself is located in an unusual setting, surrounded by the hustle and bustle near the major roads of Liverpool and Parramatta Rd. The daily activities observed on a particular Friday were surprisingly busy, many old folk bringing their young grandchildren to the temple to burn fragrant incense and pray to the Buddha.

The monk stands up and reaches for a box and hands it to them, inside there are great numbers of paper money and paper gold ingots inside the box. ‘Burn these’ he replies, ‘this is the money your husband will be using in the afterlife’. The two woman nod quietly. I proceed to explore the vase upper levels of the temple. Upstairs there are hundreds of Buddha statues, some small, some large. A wall to the right all of the room is filled with tiny statues of Buddha. The intricate detailing of the statues are amazing to look at, suddenly there is a gong downstairs, I walk down to see what is happening. The two women are burning the paper money in a large black ornament, the gong was to symbolise the connection with the man and his loved ones. Outside I can still hear the loud exhaust of a semi trailer passing. (Zhou, 2008)

His actor-as-participant voice then describes his own personal position, with regard to memories from childhood about cultural identity and a sense of homeland. This is linked back through his participant role, his sister and her confident interest in Chinese culture:

Watching the old men and woman bringing their grandchildren with them to the temple reminded me of my youth. My grandma being a devout Buddhist used to take me to the temple occasionally to pray. This was a time before I left China with my parents to live in Australia. Over the years growing up, I forgot about temple. Having both parents working full time and I going to school, there was not much time to think of outside activities. Then my grandma came for a visit, this was when I was around 10 years old if I remember correctly. On the day she arrived she took me to temple. It was suddenly very foreign to me, totally different to the culture I grew up with as my vague memories of China has evaporated….

My sister started learning Chinese dance inside the temple, she being Australian born, seems to have more understanding of Chinese culture than I have even though I was born there. She can read and write while I can only speak the language. It has made me to start thinking of the second generation of migrants and their connection to their culture. Because first generation migrants work hard from their arrival, like my parents, were willing to work hard and provide a good future for the second generation. In doing so there had to be sacrifices, culture could have been one of them as my parents struggled to fit into the wider
community. Through my sister I see that there is curiosity with second generation migrants, they grew up in a country they love yet the culture that brought them up is totally different. (Zhou, 2008)

For his visual narrative, this student links family photographs to current descriptions about rituals and objects, tracing present and past around the temple itself as a metaphor for generational change and for questioning assumptions about the nature of ‘Australian’ cultural identity. Figure 9 below shows a page from his site which links temple objects with personal memories from family history.

Figure 9: ‘Memory objects’ page, (Zhou, 2008)

**Future directions - blogs and web authoring**

The visual designs developed for this new layer in the DCA work with various media including still and moving images, and sound and text, to depict community as experiences of place. As a result of the co-location of factual and experiential knowledge layers in the DCA site, the next step is to consider the interface between these different kinds of knowledge from a design perspective, to try to link them into the region through the information architecture, and to use them as a basis for adding further resources around each theme. Whilst the ‘Google map’ entry for each one provides a geographic linking, another way to design this could be to organise the narratives into themes about human community. These could be titled around kinds of human activity and experiences of the everyday - such as ‘sports, extended family, belief, public arts, and so on.
In this way, future communal dialogues using the DCA site could be built as links between narratives in these experiential themes, which are also pinpointed as places and sites in the geographic demographic layers. As the experiential themes grow and develop with added stories, they would provide a wealth of local experiential knowledge about communities across the region.

The use of experiential ‘voices’ of student designers in this project has also opened up issues around the nature of authorship itself, and the contexts for use of a personal ‘voices’ in open forums such as blogs and social network sites. This is an emerging area of debate (Blevins, 2007), which is of real relevance for communication design, and which can be considered in future design research teaching projects around the DCA and similar sites. The project which I have described above has provided a valuable opportunity to explore participatory approaches to teaching design research for visual communication. The interdisciplinary collaboration between design and cultural research provides an interesting platform for the further development of practice-led design research, informed by cultural research approaches.

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