The role of memory in disaster studies: A historic narrative of Valparaíso’s experiences through the 1866 bay bombing, the 1906 earthquake and the 2014 mega fire in Chile

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Abstract

The role of memory in disaster-prone places is essential to face disaster events, which, in time, can also shape city-making. Communities that live in disaster-prone places tend to react from instincts passed down through generations, rather than acting per protocols or planning by a centralised administrative organisation. This is evidenced not only in communal behaviours in the wake and aftermath of an event, but is also tangible in urban infrastructure, where its construction responds to a very local sense of belonging and attachment.

Thus, I argue that communal knowledge construction in disaster-prone places relies on memory of a trans-generational origin, where memory is re-signified from event to event, empowering present communities to thrive in the face of disaster. Moreover, I propose that memory is a core aspect in city-making for these communities and in the construction of place, in behavioural and urban facets.

This paper is a product of subjective analysis applied to Valparaíso, a coastal city of Chile, and its major disaster events of 1866, 1906 and 2014. I designed data collection to gather impressions, reactions and life experiences of affected communities through interviews and archival work related to historic disasters. During fieldwork, my main questions regarded memory and city-making as important aspects to face historic disaster events. Data analysis was organised by emerging issues that participants
regarded as most relevant explanations for disaster experiences, applying intersubjective interpretation to their narratives.

From this research, I aim to position qualitative methods, as a diverse analytical tool, equal in importance to traditional quantitative frameworks of disaster studies. Although this research is a single case study, the identification of memory as an essential part of disaster understanding can help to improve preparation and readiness protocols in disaster-prone places.

**Keywords:** memory, disaster, communal knowledge, communal narratives, city-making.

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**Introduction: Memory and Disaster in Urbanism**

Valparaiso, Chile’s main port-city, is a city used to having disasters in everyday life. It has experienced all kinds of disasters, facing also countless reconstruction phases. Its experience with disaster can be traced to its original emplacement. Significantly, its indigenous communities named this place as ‘Alimapu’, or ‘burnt land’. This toponymy, or name of place, not only refers the red colour of soil and its reflection at sundown, but it also conveys memories in relation to disasters (de Ovalle, 1648; Vicuña-Mackenna, 1869). Therefore, in variety as well as in quantity, Valparaiso presents itself as a unique research opportunity for disaster studies, by offering what
Geertz (1973) calls a thick description case\textsuperscript{11}, due to the city’s vast and profound experience (Geertz, 1973b) with such events.

This space seems at permanent risk, as Participant 1 comments, due to its constant relation to ecological and social vulnerabilities. Such duality encloses risks both of natural origin (i.e. erosional environment that could trigger a landslide due to a winter rain) and socioeconomic origin of its dwelling communities (i.e. weak housing materials in informal settlements). Nevertheless, people continue to inhabit the city in the same way as 500 years ago, regarding informality\textsuperscript{12}, construction materials, and housing dialects. Then, the question arises: what is the relationship among space, community, and disaster? Can informality be the answer? Or, can it be memory?

To explain the relationship between memory and disaster from a subjective perspective, I have selected three prime examples that will show the intricacies and entwinement of both memory and disaster, and its meaningful manifestation into urban infrastructure. The 1886 Bay Bombing, the 1906 Earthquake, and the 2014 Mega Fire have been the most devastating events up to date, deeply affecting social memory construction and communal narratives, provoking a re-signification of events and behaviours, which later manifests in city-making.

In present days, disaster has been vulnerable to populistic use, by developing solutions for the most vulnerable, in exchange for political representation, i.e. propagations of sewers and hygiene in slum-areas during election period (Dussaillant & Guzman, 2014; Georgina, 2010). However, despite disaster’s political use, vulnerable condition, and its lack of formal urban planning, Valparaiso’s communities

\textsuperscript{11} Deep information that is accompanied by meaning (Geertz, 1973a).

\textsuperscript{12} Informality in this case relates to vulnerable housing in seized territories, without safeguards nor architectural design. For more details, see (Gaffikin & Morrissey, 2011; Hernandez, Kellett, & Allen, 2013).
live with disaster as a common phenomenon of the past and the future, but more importantly, it has become a core ingredient of socially constructed memory.

**Scholarly Debate**

In this section, I argue that the narrative discourse of communities that live in disaster-prone places evolves with the resignification of disaster experiences, which are then incorporated into social memory. Therefore, disaster acts as a catalyst of present experience, past knowledge, and future expectations. This dialectic is what provokes the transformation of the role of memory in disaster studies, by becoming an active actor of present happenings, like a disaster event, rather than remaining a passive container of the past.

To explore this argument theoretically, first I will examine the mechanisms with which social memory is signified, to understand the effects that disaster could entail. Then, this process will be paired to current disaster studies, to appreciate memory as a factor within them.

Memory, whether individual or social, is deeply entwined with culture (Erll, 2016). By using Bourdieu’s (1991) structuring constructivism notion, culture is understood as a social feedback between communities and their happenings; feedback that will create social structures. Thus, to analyse the present, this should be understood as a product from a newly situated pre-existing social structure incited by new situations (Bourdieu & Thompson, 1991). In time, and if stable (that is to say, without monumental changes) societies craft a ‘hegemonic culture’ which, for example, will condition social behaviours and language use (Bourdieu & Thompson, 1991).

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13 To re-signify an experience means to adapt, change, or build upon previous meaning to achieve a new developed meaning to a reaction caused by the same stimuli. For more details, see (Chartier, 1997; Derrida, 1973; Habermas, 2001; Hobsbawm & Ranger, 2012; Le Breton, 2004; Stets & Carter, 2011; Wyse et al., 2012).
Hegemonic culture, developing with communities and their place, will consolidate into a determined ‘habitus’ (Bourdieu & Thompson, 1991; Ricoeur, Blamey, & Pellauer, 2009). Habitus indicates an emplaced community that conditions its social structures, all the way through thoughts and perceptions, actions and reactions. Consequently, the habitus impacts and processes hegemonic culture from and on a community in a determined space and time (Costa & Murphy, 2015; Hillier & Rooksby, 2005).

During this process, memory is also affected; it is constructed through time, space, happenings, and experiences (Halbwachs & Coser, 1992; Hodgkin & Radstone, 2003), depicting a process that develops through generations (Climo & Cattell, 2002; de Certeau & Rendall, 2011). Moreover, social memory mirrors individual memory mechanisms. Following Sweatt’s (2009) proposition, lessons caused by an outside stimulus, triggers an altered behaviour that becomes part of long-term memory. This proposition concurs with Hölscher (2005), who identifies that chemical changes in the brain caused by stress or anxiety, activate new behavioural reactions for similar situations. Elevating the scale from persons to families or communities, the logics of learning-memory-behaviour can also apply, causing consequently a sense of common past through its members, consolidating knowledge that unleashes when faced to different, but similar, stimuli (Corballis, White, & Abraham, 2014).

To understand this communal knowledge crafting, it is helpful to apply Fivush’s concept of “episodic memory” (Fivush & Haden, 2003, pp. 9-28). At an individual scale, the most significant memories can be put together through recurrence and meaning evolution. The episode, then, will become an intricate part of personal autobiographies (Anderson, 2006; Fivush & Haden, 2003). In a community, a circumstance or a determined situation can cause episodic memories in the core
behaviour of its members, therefore, unleashing a collective lessons cognition, modifying community’s social structures.

The social creation of what Pezdek (2003, pp.1034-1036) refers to as “event memory” or communal knowledge construction, offers a deeper understanding of how particular events affect societies. For example, political violence, xenophobia, discrimination, or terrorism generate mental ties within a community, thus creating diverse narratives and inner-use of language that separates communities from others. With this alterity\textsuperscript{14}, sense of belonging can develop, nurtured by memory. Nonetheless, due to its social origin, memory is also vulnerable to manipulation. The imposition of ideology (Ben-Amos & Weissberg, 1999; Giosan, Malta, Jayasinghe, Spielman, & Difede, 2009; Hodgkin & Radstone, 2003, 2005) could lead to the construction of social judgements, taboo issues or populism (Giosan et al., 2009).

Social memory, then, lives in collective behavioural manifestations of settled communities in particular situations. To use Yi Fu Tuan’s concept, disaster destroys a community’s topophilia, or the sense of belonging formed of a shared past and a common future within a shared space (Tuan, 2013). The impulse to recover what was lost, in terms of infrastructure (Kletz & Engineers, 1993; Sugimoto, Iemura, & Shaw, 2010), is important in reconstruction, but the most urgent issue for these communities is to repair communal ties, that invisible net that supported previous ways of life.

When communities start reconstruction post-disaster, individual experiences merge into a collective experience. In this syncretism, in this merging of experiences, is where I propose the meeting of memory and disaster, by using Bourdieu’s (1991) “habitus” (1991). Analysing the habitus from this perspective, places such as cities

\textsuperscript{14} Alterity is the process upon which an individual self-recognizes through self-comparing the self to the ‘other’. For further reading, see (Bollig, Greiner, & Osterle, 2014; Burke & Stets, 2009; Eade, Jahjah, Bechler, & Sassen, 2004; Hogg & Reid, 2006; Knight & Saxby, 2014; Nakamura, 2015).
become *lettered*, in Rama’s (1996) perspective, and therefore *readable*. In its *reading*, a city’s *narrative shows* such hegemonic culture. The city’s urban design, the pavements, the monuments, the concepts behind streets and squares’ names, its orientation and its use of natural resources: these decisions can be read as elements of the lettered city. It is in this creation of a new hegemonic *disaster* culture, where memory shapes collective social structures; where it manifests not only in behavioural city-making, but in actual infrastructural city-making in the wake of disaster events.

Following this line of thought, disaster studies recognise that disaster events can be understood as a sociocultural phenomenon. In this sense, Garcia-Acosta (2011) argues that due to the poor conditions that surround certain communities with socioeconomic difficulties, the human-made environment (*the city’s urban design*) with which they interact makes communities vulnerable, exposed to higher risks, and therefore, disaster can be argued to be caused by the social production of risk environments (García-Acosta, 2011). This builds on what, Beck (1992) explained regarding the creation of risk environments, which would eventually create risk societies, where modernity-provoked threats were to become quotidian in everyday life.

As sociocultural constructions, disasters should be analysed as processes rather than events. Oliver-Smith (2001) argues that, by widening the scope, disasters could be understood as moments where all elements of society come into play, even political hegemonies during reconstruction phases (Hoffman & Oliver-Smith, 2002).

However, the treatment of disasters as sociocultural constructions relapses to vulnerability perception (De Dominicis, Fornara, Ganucci Cancellieri, Twigger-Ross, & Bonaiuto, 2015; Jha, 2010) or to processual perspectives (Leff, 2004; Waugh, 2006), where a determined efficacy-based rationality should offer new paths to better solutions. Although further developed than the 1983 Federal Emergency Management
Agency (FEMA) treatment of disaster, where the research focused solely on quantitative data (i.e. how much housing or hectarage affected), these approaches are still far from acknowledging memory as a factor in disaster studies.

**Methodology**

My research design used constructed grounded theory (Charmaz, 2014), due to its emphasis on *situated* decision-making according to the value of the empirical data, which achieves analytical constructions of *grounded* interpretations of facts and meaning. This builds on what Ricouer (1991) understands as the construction of the self within a community, in a determined space and time. Therefore, the research design was focused on gathering participants’ experiences from an intersubjective methodological perspective (Ann L Cunliffe, 2003; Ann L. Cunliffe & Karunanayake, 2013). For Cunliffe, this offers reflexive possibilities for the fusion of facts and meaning, i.e. through the use of language (Ann L Cunliffe, 2003, 2010).

To frame the role of memory in disaster events, I planned a two-part research fieldwork project: first in 2015 (September- December) and then in 2016 (July-November), with an inter-period of six months. I designed it to gather specific pieces of data, related to collective perceptions and city-making through historical time, privileging discourse and language, actions and reflections, symbolism and signification of everyday life, in the events of 1866, 1906 and 2014.

Applying Flick’s (2013) notion of situated sampling, 30 participants were purposively targeted to focus on groups/communities that were affected by the 2014 Mega Fire, such as hill dwellers, volunteers, fire fighters and other military response agencies, local and national government representatives and geographical, and urban and historical academics (Charmaz, 2006; DeLyser, Herbert, Aitken, Crang, & McDowell, 2009; Stake, 1995). Also, by using snowballing techniques, I reached
NGO’s, media outlets, and religious and minorities organisations that were involved as well, enriching analytical perspectives (Darling-Hammond, 1994; Miles, Huberman, & Saldana, 2013; Stake, 1995), elevating the sample number to 50 participants in total.

This research was mixed-methods based, using interviews, focus groups, researcher’s journal, and archival work. These methods were selected for their flexibility and thoroughness, and their malleability to go from preconceptions to new perspectives grounded in collected evidence (Stake, 1995). Of the four methods, interviews (used mainly for the 2014 Mega Fire) and archival work (used mainly for the 1886 and 1906 events) offered the most thick-description, because they reached the object of study by understanding participants’ internal symbolic constructs through the use of language signals (Yin, 2013).

Interviews\textsuperscript{15} consisted of two parts. Firstly, a semi-structured, six-question-long, and two-part interview was conducted with each participant, with it eventually evolving into a conversation, where participants felt confident enough to share their experiences with disaster in deep detail (Fabian, 1983; Fikfak, Adam, & Garz, 2004; Flick, 2013; Flyvbjerg, 2002). Secondly, to provoke such reactions, in each interview, I presented participants with a presentation of 30 historic photographs of diverse city events, in digital format (through a smartphone). With this mechanism, I intended to push forward personal memories, casual conversations had between families or neighbourhoods, and different lessons that each disaster has had on them (Foucault, 1983).

\textsuperscript{15} Regarding the ethical implementation of interviews to participants that have lived through such sensitive experience, and to be attentive to their deep sentiments and emotions, I submitted my questionnaire for validation with interview research specialists in the University of Leeds, as Wiles (2012) recommends. Their comments empowered me as a researcher to use empathy as a building-confidence mechanism, using examples, idioms and behaviours of shared disaster experience with my participants. To gain their trust and confidence, I used empathy to construct with them a safe place of conversation (Wiles, 2012). If needed, a support network was contactable through the Municipality of Valparaiso, to assist mental distress through the help of psychological groups of local healthcare services.
Archival work was developed using historical method to understand the happenings and development of the city’s main disaster events. Primary sources, such as press archives or historical artefacts, offered a deeper comprehension as to how meanings and symbolic representations came to happen in urban emplacements, in the form of its narrative through time (Corbusier, 1987; Gehl & Svarre, 2013; Jacobs, 1961; Lynch, 1960; Mumford, 1961; Pahl, 1975; Sennett, 1996).

These interviews, as well as the archival work, were conducted in Valparaiso itself. The city, then, became a hyphen-space or highlighted meaning space (Ann L. Cunliffe & Karunanayake, 2013). In it, I focused on the four most affected hills of the Mega Fire: Las Cañas, El Litre, Merced and La Cruz. These hills were the most devastated, both in terms of burnt territory (1.021 hectares) and affected dwellers (13,365 in total, which represent almost 4,000 families, a 42% of upper-hill urbanism of the whole city) (UNDP, 2014).

Finally, for data analysis of all the collected data, I constantly monitored for emerging patterns during fieldwork, to contrast them to the research questions. As Delyser (2009) points out, this method facilitates analysis by basing it directly on the collected data rather than using pre-categorised criteria (DeLyser et al., 2009). Therefore, such patterns of thought became the main arguments of this research, by subjectively inferring, interpreting, comparing and contrasting pieces of data to archival data (DeLyser et al., 2009; Flick, 2013). In this type of data analysis, therefore, validation is not the aim. Rather, I intend to offer a deep understanding of meaning and symbolism, as Stake (2010) and other theorists propose as the main aim of subjective research (DeLyser et al., 2009; Flick, 2013; Stake, 2010; Yin, 2013).
Findings and Discussion

Overall, one of the four main findings of my research related to issues of memory, which I will present in the following discussion. The structure of this section, then, is based on the analysis of three major disaster events within Valparaiso’s history, where it is possible to tangibly appreciate disaster impacting memory, and in what ways this dialectic marked its past and present urbanism. Furthermore, for this discussion, I will use three metaphors that helped me reach past imaginaries\textsuperscript{16} of these disasters: the ‘lettered city’ for the 1886 Bay Bombing, the ‘demolished city’ for the 1906 Earthquake, and the ‘burnt city’ for the 2014 Mega Fire.

These metaphors are articulated through Bourdieu’s concept of habitus. Thus, in each disaster/metaphor, the discussion of disaster impacting memory will be guided by the evolution of one habitus and its transformation into another. This transformation marks the process with which I identify disaster impacting memory; which is understood colloquially as the reconstruction process, made tangible through the changing materiality of Valparaiso’s urban infrastructure. Space becomes place not because of settlement, but because of human experiences (Halbwachs & Coser, 1992), which in this case, are entwined through disaster events. The construction of a new habitus, then, takes into account new cultural syncretism adaptation (Halbwachs & Coser, 1992) between the recuperation of what was had, and aspirations for a better future (Barthes & Ortega, 2007).

\textsuperscript{16} Imaginaries relates to the reality that is constructed as a result of communal experiences and socially shared meaning. For further details, see (Abrams & Hogg, 2008; Anderson, 2006; Berger & Luckmann, 2011).
**The Lettered City and the 1886 Bay Bombing**

Valparaiso, as Chile’s main port, started attracting migrants from within the country as well as from Europe, looking for new commercial and industrial opportunities, especially during the 19th century (Vicuña-Mackenna, 1869). In this process, migrant groups brought with them specific businesses, i.e. banks and trade brought by the English, or specialised medicine by the Germans. As Map 1 shows, geomorphically, Valparaiso offered little plain space to accommodate them. Surrounding this plain are 42 major hills, so different communities started to inhabit determined foothills because of the lack of plain space.

**MAP 1: HARBOUR AND TOWN OF VALPARAISO, 1852 (LOPEZ NAMUR, 2004), P.1**

During previous centuries (c. 1650-1850) the hills were inhabited by different communities, nurtured from early Chilean migrants’ families, and their common trade, i.e. cobblers or carpenters, that shared common history, and values, fused them into an *early* first habitus. The strong sense of attachment to their ‘hill of origin’ reflects Corballis et al (2014) ideas of consolidating reactions caused by stimuli, that evolved into determined patterns of behaviour. Once the bourgeois were settled, as Participant 3 explains, vulnerable working families settled uphill from them, in spaces that lacked urbanism (such as sewers or streets). This upward inhabiting logic, Participant 1 argues, was consolidated through various minor disaster events, or to use Fivush and Haden’s
(2003) concept, through minor disaster episodic events. However, during the 19th century, the most powerful one was the bombing of the city during the Chilean War against Spain, in 1866 (Bunster, 1948; Edwards-Bello, 1934). As Image 1 depicts, this disaster caused the first major destruction of the plain terrain, triggering a second push to settle uphill by the homeless bourgeoisie.

**Image 1:** Valparaiso Bombarded, War Against Spain, 1866 (Armada de Chile, 1866).

With this disaster, a clear representation of the implementation of episodic memory learnings were deployed, by constructing a new *readable* habitus using the bombed space, by planning and ordering the new grid, which would follow the same social structure of the previous housing pattern per income.

However, the principal outcomes were the publication of several historical studies which explored the notion of a distinctive kind of Chilean, the ‘porteño’. With its values of tolerance and hard-work, their resilience came to build up a new, better city. These studies, such as Vicuña-Mackenna’s (1869) *History of Valparaiso* reached Europe, which established a new facet to Valparaiso as a port-city. This demonstrates

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17 As Mukherjee explains, port-cities were often related to a male culture of leisure, prostitution, gambling, as well as its also male facets of commerce, education, and banking, at least up until the ends of the 19th century (Mukherjee, 2014).
what Ricouer proposed as a type of behaviour that arises from self-knowledge, or in this case, of communities’ self-awareness (Ricoeur et al., 2009).

This new sense of belonging was, therefore, imprinted into the city’s second, \textit{lettered}, habitus, where the new grid corresponded to a resilient bourgeoisie that harvested new values by recognising themselves as \textit{porteños} (Edwards-Bello, 1934). These values can be reflected and \textit{read} in the new grid, such as hygiene (sewers and control of miasmas), perpendicular streets (big avenues to enjoy, shorter streets for housing), and the incorporation of nature into the city (parks and squares) for all.

\textbf{The Demolished City of the 1906 Earthquake}

Four months after the 1906 California Earthquake, an 8.2 Richter scale magnitude earthquake struck at the seaside of the bay, destroying the city almost in its entirety, leaving behind approximately 30,000 dead (Zegers, 1906). In the immediate aftermath, explosions of gas pipes provoked several fires, as shown in Image 2.

\textbf{Image 2: Block 552, Mr. Bradanovic’s Building, from Morris Street (Sanchez-Cifuentes, 1906, p.11).}
In the destruction of the second lettered habitus, porteños leapt from a first episodic memory (Fivush & Haden, 2003) into an event memory (Pezdek, 2003) in their memory construction, causing a deeper change to their narratives. Pezdek (2003) explains that communal narratives turn into communal knowledge because of particular types of events (in this case, disasters), consolidating even further attachment emotions, and thus generating sense of belonging in a determined place (Berberich, Campbell, & Hudson, 2012), through families’ experiences.

With this destruction, Valparaiso’s (second) lettered habitus was obliterated, and the city took almost three years to rebuild the urban infrastructure alone (i.e. street lamps). Authorities at the time decided to make this destruction an opportunity, and built a more spacious and planned city, by using the debris to expand the coast line outwards, as shown in Image 3, gaining key plain space (Cobos, 1999; Zegers, 1906).

**Image 3:** Enlargement of the Plain Territories of Valparaiso, 1919 (Fotos Historicas de Valparaiso, 2015).

Through this disaster, city-making changed in two concrete ways, giving birth to a third habitus, ‘demolished’ in metaphor. Firstly, as an example of new materiality, various monuments were erected in the new plain to remember national and international efforts that helped towards reconstruction, making communal narratives
tangible (i.e. monuments to British, Italian, and German communities scattered around the city) (Peña Muñoz, 2006). Of these, the most important one was the monument in honour of the fallen during the quake (Image 4), situated in the same place as the graves of those who had died because of the seismic movement, the fire, and the following epidemics that broke out because of precarious hygiene conditions (Sanchez-Cifuentes, 1906; Zegers, 1906).

**Image 4: Monument for 1906 Earthquake victims (Fotos Historicas de Valparaiso, 2015).**

Secondly, this event memory was captured by 1906’s survivors and turned into concrete patterns of behaviour. Participant 42 offers an example through her recollections of childhood. These show how collective perception consolidated through time, and how such perception turned into a newer form of culture in city-making (Konieczny, 2009; Lefebvre, 1992; Rama, 1996), where the *lettered city* became the *demolished city*.

As a little girl, and as the oldest of the grandchildren, Participant 42 oversaw peeling potatoes and baking bread for lunch, not because someone was expected, but because someone *would* need it. She explains further that their home door, as well as of that of her neighbours, was always open, that they did not have house fences, and children played together in the streets. Whoever came in, her grandmother said, who was hungry and in need, could come by and eat at the table with the family, and was
always welcome. She expresses that this was an inherited way of life, because when her grandmother was a grandchild herself, she was trusted to do the same, in the aftermaths of the 1906 earthquake.

In her own words:

*My granny expected us to behave as she was expected to behave when she was little, because solidarity was key to survive the earthquake. ‘That’s what we learned to do, and that’s what you will pass on to your children one day’, she said to me. Her experience was safeguarded and lived in our generation, and that’s what our neighbourhood was all about. Our houses were built up so anyone could easily come through and eat with us.* Source: Participant 42\(^{18}\).

Memory of this event has been evident in the materiality of the new grid and expansion of the demolished (but reconstructed) city. More importantly, it made an imprint on communities’ behaviour that has had its roots in past events, but has now consolidated not only to survive, but into a new way of life.

**The Burnt City and the 2014 Mega Fire**

On 12 April 2014, a forest fire (in origin), crossed a major highway and came down onto the city’s uphill, where precarious and informal housing were situated, which can be viewed in Image 5, 6 and 7. It finally expanded to 7 of Valparaiso’s 42 major hills (La Cruz, Las Cañas-El Vergel, El Litre, Mariposas, Ramaditas, Rocuant and Merced). Due to intense wind power, which, in combination with extremely hot temperatures and flammable material (such as introduced eucalyptus plantations and light-material houses), provoked an urban fire of gigantic proportions, that destroyed 8% of the city’s

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\(^{18}\) Own Translation.
urban territory which corresponds to 42% of uphill urbanisation, and left behind over 13,000 affected dwellers, and 15 dead (UNDP, 2014).

**IMAGE 5:** 2015 AERIAL SHOT OF EL VERGEL ZONE, AREA OF FOREST AND INFORMAL HOUSING, WHICH WAS CROSSED DOWNHILL BY THE 2014 MEGA FIRE (FISHER-COLLADO, 2015).

**IMAGE 6 AND 7:** THIRD DAY AFTER THE MEGA FIRE (ARENAS-MARTIJA, 2014).

At first, many communities thought that it was just another fire. As Participant 22 recalls:

> We never thought that it could get this bad. It was unimaginable. We could see it so far away. But in a matter of minutes, the wind shifted, and balls of fire started to burn houses a block away from me. It was like a scene taken from a war film” Source: Participant 22.

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19 Own Translation.
Importantly, Participant 22 and 49 state that there was no official call for evacuation. Neighbours communicated by shouting downhill, like so many times before, getting the message across house to house. Participant 21 explained that:

*You could hear the screams from blocks away. That’s how I knew that it could affect me. I gathered what I could, and sent the kids downhill. I went to the other house to pick up my mum, she’s invalid. With another neighbour, I could manage to drag her down. But nobody told us to evacuate. The firefighters were still uphill, trying to manage the fire.”* Source: Participant 21.

In time, reconstruction plans were organised by authorities at a local and national level, seen once again, as an opportunity to improve the city (Ministerio de Secretaria General de la Presidencia, 2014), which clashed with the porteño way of life. As many participants mentioned, they did not need wider streets or a cable car; they needed what they lost. Improvement of the city, as a collective notion was not accepted. Three years on, and work commissions that aim to build consensus for the reconstruction plan are still formulating what Valparaiso’s communities and authorities want for the city.

With the construction of new communal narratives also at stalemate, various affected individuals started to rebuild their homes, with light materials, on the same risky areas surrounded by eucalyptus forest and with tons of debris still surrounding the gorges in between hills. With these acts, city-making turned into an inhabiting space dialectic, far from memory categorized as ‘event’ or ‘episodic’ (Dickie, 2006; Giosan et al., 2009; Halbwachs & Coser, 1992).

The main change was the lack of collective thinking that supported emergency survival. Therefore, individualism emerged as the only way out. Participant 42
highlights that after the fire, fences stood up very quickly, and the open-door social structure was forever broken. Participant 22 also relates an example of the change in narratives. In their family plot (the same place where the mother had her house and gave space for her children to build up houses for their families), individualism had deeply affected inner family behaviour. One of the daughters got an emergency housing kit, and with nowhere to put it and pressured by the thought that the donors would give it to someone else, she decided to build it up over her own mother’s house, surrounding it in a way that now her mother, a disabled person, cannot get in or out the front door, as seen in Image 8. One of the surviving houses, then, became useless because of individualism and the lack of a new habitus.

![Image 8: House built on house (Own Crafting).](image)

After the Mega Fire of 2014, dialogue between communities and local and national authorities have been in constant conflict, with no advance either in infrastructure nor in housing (Directorio Reconstruccion Incendio, 2014; UNDP, 2014). This exemplifies the closure of narrative construction, and with it, the fading of attachment and weakening sense of belonging. Memory resignification of this event, in
these terms, is what is pouring into the next (and present) ‘burnt city’ habitus, by the burning, both literally and figuratively, of the logics of previous hegemonic cultures and habitus.

**Conclusions**

Understanding how memory works, on a social level, is always a challenge. Collective perception must be carefully identified, and to clearly do so, historical patterns matter. By applying Bourdieu’s concept of habitus, I could separate and categorise Valparaiso’s disaster history in three periods, where a particular social experience grew and consolidated as communal narratives.

Each habitus was interrupted by a determined disaster event, that tested the lessons of the previous period; and with every post disaster, came a reconstruction phase that completely changed both the city’s materiality and sense of belonging. In doing so, post disaster phases also challenged communities’ narratives, consolidating them in the form of social knowledge by re-signifying past life and aims for the future in a new hegemonic culture.

Importantly, in these three disaster events, which interrupted three consolidated habitus, there was no protocol in place to contain destruction. People had to manage through instincts, and quite plainly, do whatever they could to contain first, and flee second. This built-in resilience memory saved lives. In these examples, the state and municipality reacted in the aftermath, *after* the disaster took place, leading the reconstruction phase.

Particularly different was the event of 2014. Even though this ‘reaction logic’ was not different, President Michelle Bachelet and Mayor Jorge Castro conducted a survey amongst the affected dwellers to know the amount of resources that had to be destined for housing and how much was needed for urban reconstruction (Directorio
Reconstruccion Incendio, 2014). Finally, a family bonus of 1 million Chilean pesos was given (approximately 1 thousand pounds) to buy house essentials, i.e. refrigerator or washing machine (UNDP, 2014).

Once money was involved, it deepened veiled social conflicts in between affected dwellers, giving way to individualist responses to face the reconstruction phase. These actions ripped social networks and narratives, leaving city-making by disaster-memory vulnerable to centralised and imposed decisions regarding urbanism and what it meant to its citizens.

This new understanding, offered by using Bourdieu’s habitus in disaster studies, highlights the role of memory in the interpretation of disasters. Qualitative tools such as the habitus, thus allowing deeper grasp related to communities’ behaviour and reactions to disaster and reconstruction phases in disaster-prone places. This can improve emergency plans and safety analysis protocols, by offering a new conceptual tool that can be used in different geographical scales as well as it can be used transversally through historical time of any one community. With said conceptual tool, new perspectives are evidenced as to how and why such behaviours, constructed through memory, come into being.

Although this new perspective helps to acquire meaning through analysed urbanism from a semiotic understanding of memory and disaster, more research is needed when considering fellow communities not directly affected by a disaster event, but cohabiting in the same place. Whether the analysis of this kind of data is relevant and/or could produce other conclusions is yet unknown; and with it, if this perspective would impact, and in what why, disaster protocols in other disaster-prone places.
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